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FROM ADVERTISER TO ADVOCACY: GAMBLERS’ HELP COMMUNITY EDUCATION IN VICTORIA, AUSTRALIA 1995-2005

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ABSTRACT

Promoting Gamblers Help Services and working with Industry was the role described in the Dept of Human Services funding guidelines in 1995 for Community Educators and Gaming Industry Liaison Workers. The role has altered considerably in the 10 years that Community Educators – as they are now known - have been working within the Gambler’s Help Network in Victoria.

The change of government in Victoria and the consequent impact on government policy, the impact of changes in the Gaming industry, the impact of research both in Australia and overseas, and of course the experience of 10 years of talking to people who have developed gambling problems have profoundly effected the way Community Educators view their role.

This paper will examine what community educators have learned through their experiences in working with the industry, with community groups and as part of a unique model of integrated service with counselors and financial counselors. It will highlight the benefits of such an approach to education about gambling and problem gambling for all stakeholders – industry, government, and the general population.

Introduction

Gamblers Help Services in the State of Victoria, Australia have historically provided community education as a funded component of the service delivery model. This paper will look at some of the issues and challenges as faced by community educators today as they are working in agencies that provide counseling and other services to people who have developed gambling problems following the introduction of a casino into the city of Melbourne and Electronic Gaming Machines (EGM’s) into what were the local pubs and clubs.

Gaming has been introduced to Victoria in such a way that most people who use EGM’s do so within 2.5 kilometers of their home (KPMG, 2000). That such access has been problematic is evident by the continuing growth of gaming losses.
The role of the Community Educators continues to evolve. This paper, while looking briefly at some past work, will look to the influences that have led educators to their current working model. These influences include the change of government in Victoria and the consequent impact on government policy, the impact of changes in the Gaming industry, the impact of research both in Australia and overseas, and of course the experience of 10 years of talking to people who have developed gambling problems as well as to those who have not.

**Historical Background**

In May 2005 Liberal Victorian Parliamentarian Robin Cooper called on all sides of Parliament to accept the blame for introducing “something that is causing enormous damage to individuals, families and the very fabric of our society.” (The Age, May 26, 2005). His words seemed to echo those of former Premiers Kirner and Kennett who have both said that they have regrets about the rapid spread of gaming machines across the state and the damage caused.

It was Joan Kirner’s Labour Government that approved the introduction of EGM’s and the building of Crown Casino to the State of Victoria in 1991. Following her election defeat in 1992, the incoming Kennett Liberal government oversaw the building of the casino and the introduction of EGM’S to hotels and clubs in the state of Victoria in 1994.

In February 1994 the Department of Health and Community Services submitted for funds from the Community Support Fund (derived from a tax on EGM’s pubs and clubs). This funding was to establish a problem gambling program as within 2 years of their introduction, it was becoming obvious that EGM’s were having a detrimental impact on some people. Tenders were called for the provision of regional problem gambling services and generally community based services became the auspice agencies. Break Even (Gamblers Help) Problem Gambling Services were born.

The Brack’s Labor Government was elected in 1999 with a platform that promised to look at gaming policy. By this time the true impact of the introduction of gaming was being felt and despite interventions, such as increased lighting and clocks on machines gaming losses continued to rise as can be seen from the following graph. The downturn in losses in 2002-3 is attributable to the introduction of a ban on smoking in gaming rooms. However, industry measures to cope with this ban have meant that by 2005, losses in some areas are at their 2001-2 level.
Community Education - An Integral Part of the Service Model

During its 10 years of operation Gamblers Help Services have experienced a name change and have introduced an integrated model of service delivery that offers clients an extremely high level of care.

The current Service model includes counseling, financial counseling, groups for gamblers, groups for support persons and a peer support service. A 24 hour telephone referral and crisis counseling service is part of this model. Gamblers Help prides itself on offering counseling in many community languages, on its after-hours services, on the number of locations where people can access the services and on the quick response to service requests.

Integral to the model was a component of Community Education and Gaming Venue Liaison and staff were employed in each Gamblers Help regional office across the State of Victoria to fulfill this role.

Early Role of Community Education and Gaming Venue Liaison Workers

The program funding that provided for Community Education and Liaison Officers had as its aims in 1995:

- To work with gaming facilities to assist them to develop policies, practices and procedures to deal with problem gamblers
- To provide information to gaming facilities and facilitate a linkage with support services
- To deliver education programs to gaming facilities in partnership with the Victorian Council on Problem Gambling
• To deliver community education programs to the general community
• To establish service promotion/marketing – local marketing of the service.

As can be seen the early role was one of information provision – about problem gambling and about services that were provided. To this end, the community educators were involved in the development of products which spoke about signs of problem gambling, what to do and where to get help if problems are emerging. Community Educators were also involved in the development of other “reminder” type products i.e. pens, notepads, drink bottles and so on.

By 2000, a typical statement of the Community Education strategy was:
• to promote the Gambler’s Help service in the broader community
• assist people to identify the early warning signs of problem gambling
• increase community awareness of the existence and nature of problem gambling
• to design and deliver harm minimisation messages to the community in relation to problem gambling
• to provide people with gambling problems with support and information as to where to obtain help
• provide families and friends of people with problem gambling with information, support and skills
• to provide a culturally sensitive service targeting specific ethnic groups within the region
• to increase the number of people with a gambling problem who seek assistance
• to provide professionals working within the financial, health, welfare and gambling fields with information and skills to assist people with gambling problems
• to facilitate appropriate referral networks between the Gambler’s Help service, the regional service network and gaming facilities.

As can be seen by 2000 working with venues has decreased and work in the community correspondingly increased. Working under a social model of health, community educators are becoming expert in working to minimize and prevent the harm gambling causes. Their role is becoming one of education of a wide variety of groups – both professional and community.

By 2005 community educators were working collegially on a number of issues and have come to see advocacy as an integral part of their role. Increasingly, community educators are more likely to represent the interests of particular groups within the community who have been effected by the introduction of gambling. Currently workers roles now include activities such as appearing at hearings and tribunals, preparing reports for local groups, working with local councils on Responsible Gaming Forums, briefing politicians and advocating for their clients with other industries for example the banking sector whose practices directly impact the amount of money able to be lost to gambling.
What Has Led to Community Educators Change of Role?

A. Funding Body Led Changes

The Department of Human Services (DHS) took control of the advertising strategy in 2000 and the promotion of the Gamblers Help Services became part of a Communications Strategy – Phase 4 of this strategy is currently being rolled out.

There were several consequences of this policy change. One was that information product and resource development was no longer the focus of the community educators. This was not necessarily a bad thing although there was some resistance to the change. Products now became standardized and workers felt the lack of autonomy and control that comes with having some financial independence. Difficulties arose from the perceived inadequate consultation regarding product development and more recently, from our loss of control over product availability.

DHS tendered out the distribution of Products to Gaming Venues to a company called Convenience Advertising. This company continues to put Gamblers’ Help products into venues. While some community educators welcomed this development, others saw that they no longer had legitimate access to venues.

Another policy change was the development of the Partnership Program by DHS over the last two years. Projects have been funded regionally as well as at a statewide level. Implementation of this initiative has meant that community educators have had to change the way they undertake their daily work. Much time is now dedicated to working with groups who have successfully tendered for partnership funds. In some cases partners work collaboratively with Gamblers Help community educators utilizing their expertise. In others Gamblers Help expertise is not fully utilized and for others community educators may be excluded from the partnership. Lynne (2004) suggests the language of partnerships used by government is relatively new but is still top down, a way of fulfilling the government agendas rather than the community’s. Community educators are attempting to find their way in such a program.

B. Consequences of an Integrated Model of Service

The Integrated Model of Service effects the Community Education Role. Most community educators are co-located with counseling services and financial counselors and where there is no co-location with these professionals, referral protocols have been developed. Therefore colleagues’ clinical experience and practical work informs community education practices.

Community educators utilize the expertise of financial counselors, culturally and linguistically diverse workers and clinical counselors in disseminating information to the community. By working alongside these other professionals, community educators develop and understand the best way to communicate information to different groups within the community including those from diverse cultural backgrounds different age groups, minority groups, metropolitan, regional and remote rural areas. This also has a
flow on effect to the wider community educator’s network as workers show case expertise at monthly meetings.

C. Community Educators’ Experience

Community Educators now have 10 years of experience of talking to community groups and individuals about gambling and problem gambling. The people they talk to, liaise with, and work with provide a different perspective than is sometimes seen in the clinical setting. Because of this experience Community Educators can give voice to the concerns and needs of the many people who neither seek counseling or involvement in any type of research. Through this work, they are aware of the extensive need for education in a number of areas including but not only, information on the odds of winning, how gaming machines work and information about illusions of winning so that consumers are informed about the product they are purchasing.

Community Educators experience of working with gaming venue staff also puts them in a position to influence gamblers whether problematic or not. Educated venue staff are in the unique position to be able to assist people displaying problem behaviors, to provide information to patrons, and talk with patrons about self help and professional services available. Thus while this is indirect client work, it is work that remains important in a preventative capacity. Community Educators have been able to play a large part in helping venues and industry develop the types of policies and practices that are preventative in nature.

Community educators are also increasingly aware of the social impact of the introduction of gaming machines in particular. Through our unique approach and ability to connect and talk with people in the community we are now able to say that approximately one in 6 people are identifying at community events as having been negatively effected by someone’s gambling (EGM) behavior.

D. Research

Increasingly our knowledge of gambling behavior is being informed by local and overseas research. Of importance seem to be the findings of several researchers outlined in Dickerson (2003). These findings lead him to conclude if the jargon of problem gambling is excluded, it seems self evident that the typical regular player cannot be expected to gamble responsibly on continuous forms of gambling as they are currently regulated by governments and provided by operators.

The Productivity Commission (1999) Australia’s Gaming Industries report was a critical document that provided evidence of gambling related harm. Its findings that regular players as a group count for 85-95% of the total expenditure of their preferred gambling product, allied with Dickerson’s conclusions, suggest a range of different interventions are needed to protect consumers from the gaming product.

Research is showing that EGM’s in particular are highly problematic and generally risky even for those who have no prior or ongoing pathology or addiction Borrell (2005).
Community educators currently have a dialogue about how to incorporate current research trends towards consumer protection and safety into their daily work.

E. An Emerging Understanding of Problem Gambling

Michaleas (2000) points out that there are many definitions for problem gambling and most have similar themes. These include references to a person’s gambling behavior giving rise to adverse personal, economic and social impacts. She concluded then that Dickerson’s (1997) definition: “The situation where a person’s gambling activity gives rise to harm to the individual player and/or to his or her family, and may extend to the community” was an acceptable, accurate and workable version. (Michaleas, 2000:3)

For some time it has been obvious in Australia there has been a need for a new definition that takes account of factors beyond the individual in the development of a gambling problem. It is well known that the density of gaming machines in Australia is many times higher than any other jurisdiction. Blaszczynski in (2000) discussed the pathways to problem gambling and quoted research where “substantive data clearly demonstrated that the incidence of pathological gambling is inextricably tied to the number of available gambling outlets.” (Blaszczynski, 2000:39).

This new definition needs to include something about the part that is played by public policy which promotes this availability and access to gambling facilities. Jennifer Borrell states that “many of the ‘harm minimization’ programs and research projects are very clearly styled within the ‘individual responsibility’ mould, whilst equally – albeit implicitly – recognizing the quasi – impossibility of legislating or even regulating the supply of ‘addictive’ substances or instances.” (Borrell 2005:4)

Jackson (2004) notes that the nature of the gambling products, as well as their distribution can also have important influences upon gambling uptake. It has been noted by researchers that the way industry is organized and allowed to operate effects people’s propensity to gamble.

A new definition of problem gambling that incorporates these ideas would look something like;

“A situation that can occur when an individual is exposed to conditions that have known adverse consequences - particularly financial, social and emotional - over long periods of time with little chance of improving the conditions because they are supported by legislation and regulation through which either a private or public body benefits.”

Community Educators Model of Working 2004

In 2003 the Community Educators Network (CEN) formally adopted this new name to fit with their evolving role of diminishing venue liaison work and their ongoing attempts to define a new way of working. As part of the name change CEN developed a new Terms of Reference in late 2004. Its purpose is to facilitate Community Educators’ professional development and provide a framework of support for them to deliver a minimum of three projects of statewide and/or multi regional relevance.
Across Victoria the Community Educators Network is made up of workers originating from a number of disciplines including teaching, training, social work, health promotion, community development and industry. Each of these workers brings a vast array of skills and experience to the sector.

Although as workers we are employed by different auspice agencies, we now have an agreement to work together in the following ways:

- Members share summaries of regional CE plans on an annual basis,
- Share current regional initiatives on a monthly basis
- Each meeting will have time dedicated to case presentations from members, discussions, emerging trends or current research.

Over the life of the network statewide meetings have occurred on a regular basis either monthly or bi-monthly. The Terms of Reference also outlines the conveners and others’ roles and responsibilities, the accountability of members and the decision making processes.

All community educators in Victoria to date have completed training in health promotion and more recently have completed a Certificate 4 in Workplace Training and Assessment in recognition of their role as trainers.

**Strength and Diversity of Community Educators Work**

The following list of projects gives an insight into the range of activities across the state that has involved Community Educators.

Better Bet
AMA Doctors Project
Midsumma Festival
Gpack
Walking Group
Christian Church Group
Traditional Indigenous Games
The Gathering Place
Chinese Gambling Concern Group
Inside Pokies
Make It Real Posters
Pre and Post Release
Women’s D V Project
SAAP Training
Seniors and Youth Week
G-Spot Website
Recipe for Responsible Gambling
Wimmera Field Days
First Past The Post

Koori Brochures and Posters
Venue Information Sessions
Regional Conferences
Responsible Gambling Golf Sponsorship
Responsible Gambling Interest Group
Hume Early Intervention Project
CALD Self Help Products
Resilience Program for Children
Spokespersons Project
Racing Interest Group
Vietnamese Chess Club
Women and Gambling
Living Stories Theatre
Western Bulldogs
CASCi
Geelong Racing Club
CALD Radio and Newspaper Articles
Wise Women’s Social Group
Challenges / Achievements – The Way Forward

Michaleas in (2000) stated that one of the biggest challenges for community educators was to overcome the lack of community discussion about gambling and problem gambling. Further she identified that the concepts of disease and addiction colors peoples’ perceptions and often deters them from seeking information, support and assistance.

Five years on this has changed considerably. The impact of gaming in the State of Victoria is a regular feature in our daily papers. We are accustomed to seeing previously respected members of the community before the courts for gaming related offences. There has been a recorded increase in gambling related suicide, marriage breakdowns and bankruptcies. Community attitudes to the availability of gaming have become negative as documented in the 2003 Victorian Longitudinal Community Attitudes Survey, undertaken by the Victorian Gambling Research Panel concluded, “There is strong support from the surveyed Victorian population for policy change.” (GRP 2003:5)

People have begun to question the “addiction” concept of gambling that arises when gambling is viewed under a health model, and to examine whether the picture is more complicated. While a large majority of the surveyed population agrees that each individual has a responsibility for gambling reduction, “overall Victorians appear to see reduction in gambling as a shared responsibility between individuals, the government and gambling providers.” (GRP 2003:5)

The work of Mark Dickerson (2002) and others is beginning to inform educators, clinicians and some members of the general community that the regular use of electronic gaming machines leads to impaired control for regular users in the majority of cases. However, Community Educators are challenged with interpreting extremes of ideologies that underpin research, when there is a lack of agreement in the writings of eminent researchers. How do educators face the double challenge of framing this information in a way that people’s playing patterns are altered and reduce the stigma that is associated with having lost large amounts of money through gambling?

We live in a state where Gaming revenue continues to rise despite any measures that have been introduced. The community has yet to consider what problems may arise in the future that are associated with the growth of Internet gaming and the popularity of old forms of gambling (i.e. poker) being remarketed for the youth population.

Another challenge for the Network is working with industry. We see the difficulties associated with gambling as it is currently provided, on a daily basis. The Industry see themselves as responding to a need in the community for “adult play” by providing a leisure product. Advocacy on behalf of players remains essential to ensure that industries’ products can be provided in a safe manner for all who wish to play.

One of the ways that community educators in Victoria see to deal with the increasing losses is to focus on initiatives and activities that will see the government begin to implement measures that will have real impact on protecting its citizens.
Another way is to educate the population in a different manner. We are still conducting community education sessions for diverse groups in the community, where we spend time speaking about the services available for those who have developed gambling associated problems. However, we need to continue to focus more of our time disseminating information that will protect people from developing future problems. – i.e. rather than minimize harm once a problem is evident, give people skills and knowledge to facilitate safe play practices and thus protect community members. We continue to challenge labels that are unhelpful and look to how we talk about gambling in such a way that is non-stigmatizing.

There are obvious gaps in what community educators can achieve. We have very few resources at our disposal and there is much that we know we could do with more resources. We know for example, the value of educating youth about risk taking and probability yet lack the resources to implement a program within the Victorian School system.

**Conclusion**

Developing healthy and resilient communities is fundamental for community educators within the Gamblers Help program today. Drawing on Ife’s (1995) principles of community development, the Community Educators Network seeks to establish and re-establish community and accentuate new ways of relating, organizing social life and meeting human need that provides alternatives to gambling. In doing this they are often drawing on the wisdom and developing knowledge of the community itself.

**References**

DEVELOPING A LOCAL GOVERNMENT POLICY ON GAMBLING: FRANKSTON CITY COUNCIL’S GAMBLING POLICY & ACTION PLAN 2005 - 2008

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ABSTRACT

In June 2005, Frankston City Council launched its gambling policy and action plan. The policy followed over 12 months work including resident research, community consultation and feedback from key stakeholders regarding the commitments and actions adopted by Council. The purpose of this paper is to outline the policy development process that Council took in order to respond to the issue of gambling within the municipality. Furthermore, it will be demonstrated that local government has an important role to play in policy articulation and contributing to the issue of gambling generally at a local, state and federal level.

Introduction

This paper will report on the development of the Frankston City Council Gambling Policy & Action Plan 2005 – 2008. The policy was a result of over 12 months of extensive work. This work included a review of Council’s previous Gambling Policy (2000), a survey conducted on resident gambling behaviour and attitudes to gambling, a consultation paper on gambling, the formation of a reference group to advise Council on its policy, community consultation in the form of public meetings, a Councillor briefing workshop, and feedback from key stakeholders regarding the commitments and actions adopted by Council.

Frankston City Demographics

To put this paper into perspective, Frankston City is located on the eastern shore of Port Phillip Bay, approximately 40km south of Melbourne, Victoria. The 2001 ABS Census showed that there were 109,808 residents living in Frankston City and a total of 80,989 adults aged over 18 years. Further statistics from the ABS Census showed that those from Culturally and Linguistically Diverse (CALD) backgrounds consisted of 8.5 per cent of the Frankston City population. There were 28.7 per cent of households in Frankston City that were in the lowest income quartile category, earning nil to $24,024 per annum. Of those aged 15 years and over, 56.6 per cent had no qualifications and of

1 These ABS Census statistics are available via the following website http://www.id.com.au/frankston/commmprofile
those aged 15 years and over, 31.1 per cent had completed Year 12 or equivalent compared to 43.2 per cent of those living in the Melbourne Statistical Division (MSD).

Additional 2001 ABS Census data illustrates that the main industries that residents of Frankston City were employed in were wholesale and retail trade (23.7%), manufacturing (19.2%), education health and community services (15.1%). The largest proportions of households were those that consisted of couples with children 15 years and under (32.2%) and couples without children (32.8%). There were 37.8 per cent of residents purchasing their own home and 20.9 per cent were renting their home. The majority of dwellings were separate homes (83.7%).

There are eight neighbourhood areas in Frankston and they include: Carrum Downs/Skye, Frankston Central, Frankston Heights, Frankston North, Frankston South, Karingal, Langwarrin/Langwarrin South and Seaford. Frankston City is not homogenous as there is a demonstrated socio-economic difference between these neighbourhood areas. The neighbourhood areas with the highest level of disadvantage include Frankston North and Frankston Central, whilst areas such as Frankston South and Langwarrin/Langwarrin South have a higher level of advantage. Overall, Frankston City has a relatively high level of disadvantage having the second highest level of disadvantage (993) of the ten Local Government Areas (LGAs) in the Southern Metropolitan Region (SMR) behind the City of Greater Dandenong (877) (Insight Social & Health Research 2004: 4).

Frankston City Council Gambling Policy (Electronic Gaming Machines) (2000)

In December 2000, Council adopted its first gambling policy and specifically focused on Electronic Gaming Machines (EGMs). The key objective of the policy was that with any request for an increase in EGMs there had to be a demonstration of a net social and economic benefit of introducing additional EGMs to the municipality.

Council’s 2000 gambling policy and action plan resulted in a number of outcomes for the community. Significant local research has been undertaken on resident gambling behaviour and attitudes towards gambling. Council also received funding by the Department of Human Services (DHS) as part of the Local Community Partnership Projects to conduct local research on young people’s perceptions and attitudes towards gambling. Furthermore, Council went to considerable efforts to work with gaming operators Tabcorp and Tattersall’s and local gaming venue operators through the Responsible Gambling Committee and Charter. Another outcome from this policy included advocating to the State Government and the gambling regulatory authorities in Victoria about the impacts of EGMs and the effectiveness of current State Government legislation in addressing these impacts. This advocacy was primarily through Council’s involvement in the Local Government Working Group on Gambling (LGWGOG).

There were actions within the initial policy and action plan that were not implemented as a result of limited resourcing. In reflection, this policy was as comprehensive as others written around the same time and effectively provided Council with a referral point if gambling issues arose in the municipality.
Why develop a gambling policy?

There were a number of reasons why Frankston City Council reviewed and updated its gambling policy. Council’s previous gambling policy and action plan was five (5) years old. The policy and action plan had been superseded by external policy and legislative changes such as the abolition of the Victorian Casino and Gaming Authority (VCGA) and consolidation of eight (8) Acts of Parliament regulating gambling under the Gambling Regulation Act (2003).

Victorians participate in a variety of forms of gambling. The level of this participation is evident in expenditure figures. Expenditure figures in Victoria from the Tasmanian Gaming Commission show that in 2002 – 2003 expenditure for the same period included casino expenditure $951.747 million and total racing expenditure at $555.807 million. Local research shows a high participation rate in forms of gambling other than EGMs; however, expenditure figures on forms of gambling apart from EGMs by Local Government Area (LGA) are not made publicly available.

Figures from the Victorian Commission for Gambling Regulation (VCGR) on EGM expenditure alone in Frankston City demonstrates that a considerable amount of money is gambled on EGMs in Frankston City. In 2004 – 2005, expenditure on EGMs in Frankston City was over $62 million, with a loss of $699 for every adult aged 18 years and over, compared to average spent for every adult aged 18 years and over in the Melbourne metropolitan area ($665) and Victoria ($618) based on the 2004 Estimated Residential Population (ERP) projections. The 589 EGMs spread across ten (10) venues supplies 6.55 machines for every 1000 adults aged 18 years and over. The total amount lost on EGM gambling from 1992 when machines were first introduced in Frankston City to June 2005 was $599,641,774.

The previous policy did not reflect up-to-date community attitudes to gambling in Frankston City. Recent local research on resident attitudes to gambling conducted demonstrated that attitudes to gambling had become negative since the last survey was conducted in 2000. However, it is not apparent why this was the case. Given that the Local Government Act (1989)\(^2\) articulates that the role of local government is to represent, lead and advocate on behalf of the local community, the development of an up-to-date and current gambling policy was necessary.

Attitudes and Behaviours: Gambling in Frankston City

This report documents results from a phone survey of Frankston City residents that was conducted in June 2004. It should be noted that this report was a piece of work for the purposes of informing Council decisions regarding gambling, it was by no means an academic thesis. Newton Wayman Chong, a market research agency specialising in government research provided support in the development of the survey tool and the data collection. This survey looked at not only EGM gambling behaviour and attitudes towards EGMs, but also other forms of gambling. This was because our residents

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\(^2\) The role of local government is stipulated in Section 3D of the Local Government Act (1989). This Act can be obtained from the following website [http://www.dms.dpc.vic.gov.au/](http://www.dms.dpc.vic.gov.au/)
participated in a range of gambling activities and Council wanted this to be reflected in the research. The sample of 402 residents was selected to match demographic indicators such as gender, age, income, gamblers, non-gamblers and neighbourhood area. The telephone survey contained three filter questions to ensure that there was a representative sample of residents from Frankston City with a sampling error of 4.9 per cent at 95 per cent confidence. Residents were selected randomly from the White Pages Telephone Directory. Residents were sampled from each of the neighbourhood areas.

The key findings from this research revealed that residents felt strongly opposed to EGMs in Frankston City. Evidence to suggest this include the following findings. Forty-one per cent of participants “disagreed strongly” with the statement: “It’s good to have a range of gambling options in Frankston”. Residents that were unhappy with the number of EGMs in their neighbourhood area also tended to have the highest number of EGMs. Seventy-three per cent of participants living in Frankston Central where there are currently three EGM venues, thought that there were too many EGMs in Frankston City.

There were 37.8 per cent of participants who did not participate in any form of gambling in the last month when the survey was conducted. This did not mean that these participants were non-gamblers, but that they happened to not gamble in the last month. The result could have been different had the phone survey been conducted later on in the year during the Spring Racing Carnival (Melbourne Cup) when many Victorians will place a bet to participate in a long-standing Australian sporting and cultural tradition.

Only 16.7 per cent of participants said that they had played EGMs in the last month. It is difficult to benchmark this result with results from the Gambling Research Panel (GRP) (2004: 57) on community attitudes because the results from the GRP research were based on gambling in the last 12 months. The GRP report found that of the 196 Frankston City residents that were surveyed, 44.9 per cent had played EGMs. Other results showed that just over half (51.5%) of the participants from Council’s survey had bought a Tattslotto ticket in the last month. This result was consistent with results from the GRP research that found that the most common form of gambling participated in of the Frankston City residents surveyed was Tattslotto (69.7%) (GRP 2004: 57). Forms of gambling such as EGMs and Tattslotto are accessible and convenient. As noted by the Productivity Commission, the relationship between gambling and accessibility is not only about the proximity of gambling options, but also about: ‘the mass appeal and ease of use of a gambling form; any conditions on entering gambling venues, and the initial outlay required to gamble’ (Productivity Commission 1999: 8.1).

Council’s research found that of those participants who played EGMs in the last six months, a large percentage (62.5%) only played them in Frankston City. This result was consistent with GRP (2004: 81) results that showed 57 per cent of EGM players in Victoria gambled at a venue less than 5km away from their home. These results demonstrated that Frankston City resident’s gambling behaviour had changed since 2000. The previous Frankston City (2000: 12) survey report illustrated that only 36 per cent of participants played EGMs in Frankston City and 38 per cent played EGMs both in Frankston and elsewhere. On the other hand, this recent survey demonstrated that a much smaller percentage (17.3%) of participants gambled in Frankston City and elsewhere. It is not clear why there has been such a change in gambling behaviour; however a possible
explanation was that in 2000, players chose Crown Casino as a destination of choice because they wanted a different gambling experience than playing EGMs at a local venue.

Young People’s Perceptions and Attitudes towards Gambling – An Action Plan

Under the Department of Human Services (DHS) Community Partnership Project Grants Scheme, Frankston City Council received a total of $17,000 to conduct a youth based gambling project. The aims of the project were to: Engage young people aged 15 – 24 years about their perceptions and attitudes towards gambling; Feed these views into the review of Council’s gambling policy so that the policy was comprehensive and represented the views of all residents, including those under the age of 18 years and address gaps left by previous research on youth gambling, including the role that technology played in young people gambling.

The methodology used to conduct this research consisted of forums in the form of facilitated group discussions and a survey. Research findings showed that the most popular forms of gambling engaged in by young people were scratch tickets, betting, lotteries and EGMs. It was established that there were familial, cohort and broader societal influences on young people to gamble. People close to the survey respondents gambled. The survey results illustrated that a large percentage of close friends, females and males in their immediate family had gambled in the past month. This was also consistent with findings from the group discussions. It also demonstrated how young people under the age of 18 years were accessing gambling options, particularly if parents were buying their children scratch tickets or placing bets on for them. However, there were young people who did not gamble, either because they simply were not interested in gambling or were influenced by their perception that gambling was harmful and could be addictive.

Young people had participated in a variety of forms of gambling. Findings demonstrated that more than half of the survey respondents (50.7%) indicated that they had participated in betting on the races. The second most popular activity was the purchase / obtainment through other means of scratch tickets (39.1%). Fewer than twenty per cent (18.8%) had played EGMs in the past month. There was a large percentage (42%) of survey respondents who said that they had not gambled in the past month. It was evident from the results that these young people surveyed gambled for social reasons. In this instance, young people were more likely to say that they gambled to “accompany family / friends” (37.7%) than give any other reason for gambling.

Young people’s attitudes towards gambling were sensible and based on common sense. Overall, young people who participated in the project felt that gambling was okay as long as people did not “overdo” it. To support this attitude, there were 66.7 per cent of survey respondents who agreed with the statement: “Gambling is…okay, as long as you don’t overdo it”. There were a number of actions that were included at the end of this report that related to advocating on behalf of young people in Frankston City, educating young people about gambling, encouraging further research particularly of tertiary students studying in Frankston City and “at risk” youth.
Consultation Paper on Gambling

Council commissioned a consultant from Social & Strategic Planning to prepare a consultation paper on gambling. The aims of this document were to present what were perceived to be the key issues relating to gambling in Frankston City and stimulate discussion and debate to assist Council in identifying a position that should be taken on gambling in the municipality.

The key issues that were raised in the consultation paper were drawn from an analysis of local, state and national research on gambling. Other issues that were not included in the research were raised in the paper due to pending changes to state legislation and regulations regarding EGMs. Throughout the consultation paper, a number of questions were posed around ten (10) issues to stimulate discussion and guide the gambling review consultation process.

The ten (10) issues identified in the paper that were linked to gambling in Frankston City considered relevant to the gambling policy review process included: 1. Whether to focus on all forms of gambling or only on EGMs; 2. What perspective Council should take for its policy; 3. Commitment to research; 4. Engaging the local gambling industry; 5. Promoting responsible gambling and responding to needs for recreational and social activities; 6. Local access to EGMs; 7. The notion of compensating local communities for “losses”; 8. The dilemma of sponsorship; 9. The role and voice of local government and legitimacy of Council’s policy position and decisions, advocacy, and local planning controls; and 10. General questions. These issues formed the basis of the initial community consultation process.

Community Consultation

Public meetings on the review of Council’s gambling policy were held in March 2005 and advertised in the local newspaper and on Council’s website. An independent facilitator was commissioned to undertake the meetings. The meetings were advertised in the local newspaper and on Council’s website. The consultations raised some important issues that Council considered as part of its policy review. Some of the issues that were raised at the meetings included: There was a need for Council’s gambling policy to be based on evidence, statistics, data, and community attitudes. It was suggested by those that attended the meetings that: Creative methods should be applied to obtain resident attitudes on gambling other than administering surveys and Council should include all forms of gambling and perhaps a separate section to be dedicated to EGMs in the municipality. Feedback from the youth research found that young people’s first experiences with gambling were with convenience based gambling products such as, scratch tickets. In this instance it was suggested that Council’s activities around gambling could respond to the local context and address this issue by advocating to the State Government to enforce the law regarding selling gambling products to minors and fine those who did not conform to these laws.

Presently local governments in Victoria do not have access to expenditure figures on other forms of gambling, other than EGMs or expenditure figures for each individual EGM venue. In this instance, it was recommended Council play a role advocating to the
State Government to obtain information that is currently deemed “commercial in confidence” by the gaming industry. Furthermore, it was deemed that local governments should work together on gambling related matters and lobby the State Government, on such issues as accessibility to EFTPOS machines at gaming venues. Community members also encouraged further provision of community education and awareness around gambling.

**Responsible Gambling Policy Working Party**

The Responsible Gambling Policy Working Party was established to advise Council on the development of a revised gambling policy and assist in developing Council’s position on gambling. The purpose of this was to give different sectors of the community an opportunity to contribute to the development of a gambling policy and bring together skills, knowledge and expertise to comment on findings from the consultation process and to provide feedback on policy drafts.

Members of the Working Party were chosen for their expertise in gambling related matters and the contribution that they could make to Council’s new gambling policy. Those that were involved in the Working Party included Council officers, the gaming industry, non-government organisations and a representative from Council’s Access and Equity Committee. A list of the members can be found in an appendix attached to Council’s gambling policy.

The Working Party met on a number of occasions to discuss drafts of the policy and Council’s position on gambling. Some of the key issues that emerged from these meetings, included: That the word “responsible” should be deleted from the Policy and Action Plan. There was the view that if Council was going to focus on all forms of gambling as part of its policy, it needed to define gambling parameters and take into account such aspects as, exchange of money and winning. The Social Model of Health was deemed to be a perspective Council should take into account. Furthermore, it was recommended that this policy should place greater emphasis on the promotion of “balance” in people’s lives.

It was noted that previously there had been gaps with the local venue representatives attending the Responsible Gambling Committee meetings because of work pressure and days that staff were available to attend. A suggestion was that a yearly open forum should occur to disseminate information about gambling. It was also suggested that the Frankston City Council Responsible Gambling Charter was no longer a useful tool to enhance dialogue between Council and local venues as initially intended and should be abandoned.

In relation to other matters, the view was expressed that Council should not be a direct beneficiary of gambling sourced funds. This measure would minimise any future potential for conflicts of interest between Council and the gambling industry. It was also felt that Council had an important role to play in education and advocacy on behalf of the community to the State Government on gambling related matters.
Further Community Consultation on Draft Gambling Policy

Further public meetings asking for comments on Council’s draft gambling policy were held in June 2005. There was a presentation made by Council officers consisting of a brief overview of the case for a gambling policy, the statement of policy commitments and a selection of key actions chosen from the action plan followed by questions and discussion. The meetings were advertised in the local newspaper and on Council’s website to gain as much feedback as possible from the community. Notices of the public meetings were sent to a range of community organisations operating out of Frankston City and members of the Responsible Gambling Committee established under the existing gambling policy.

Those who attended this round of community consultations were predominately representatives from local gaming venues and other gambling stakeholders from Tabcorp and Tattersall’s. Local venue representatives were critical of Council advocating for EGMs to be capped in Frankston City. However, there was agreement that the promotion of responsible gambling and prevention of problem gambling was very important in the municipality.

The gaming industry was sceptical about the validity of researching community attitudes to harm minimisation. The concern about this action was raised on the basis that survey participants would not be qualified to talk about such an issue, such as if they had never been to a gaming venue. Furthermore, representatives from the industry contended that there was the possibility that participants may support measures that would not be effective in addressing problem gambling. In the first instance, the action to research community attitudes to harm minimisation strategies was suggested by the Working Party because it provided Council the opportunity to advocate on behalf of the residents to the State Government.

The idea of having an annual community forum canvassing gambling issues in the region was well received. Suggestions made included the establishment of a reference group to discuss the agenda for the forum. Furthermore, it was raised that the forum should consist of workshops on specific gambling matters and a well-balanced range of guest speakers. It was proposed that the forum should be held in the middle of the week and in the morning when people, particularly representatives from the local gaming venues could attend.

The draft gambling policy was brought to the Working Party and Councillors participated in a briefing workshop based on the draft gambling policy. Comments from the community consultations, the Working Party and Councillors informed the final policy commitments and actions as adopted by Council.

The final gambling policy was adopted by Council in June 2005. The purpose of the Frankston City Council Policy & Action Plan 2005 – 2008 was to articulate Council’s position and response to all forms of gambling in the municipality. Furthermore, the policy sought to ensure that Council’s policy commitments reflected current resident attitudes to gambling, state and federal government legislation.

The policy statements articulate Council’s position on gambling and define Council’s vision and strategic key principles surrounding the provision of gambling in the municipality which was drawn from the Frankston City Council Plan 2004 - 2008. The future vision for Frankston City is a supportive, inclusive City that builds partnerships with the community to develop, support and enhance the health and wellbeing of all communities throughout the City. The specific principles that have been drawn upon from the Council Plan include: accountability, advocacy, engagement, leadership, partnership and sustainability.

Policy Commitments

The policy of Frankston City Council was to implement the following commitments so that they were consistent with the community’s attitudes and expectations of Council in regards to gambling within the municipality:

1. Promote the benefits of Corporate Social Responsibility (CSR) to industry provision of gambling services;
2. Promote consumer protectionism as a model to minimise the harm to residents and the community from involvement in gambling activities;
3. If an applicant for any gambling activity fails to demonstrate that there is a net economic and social benefit that will accrue to the community, Council will not support the introduction or change to that activity;
4. Council will not accept financial support or contributions from gambling industry services for its operations;
5. Commission research to monitor, evaluate and report on community attitudes and expectations as well as legislative changes to amend its Gambling Policy & Action Plan when applicable;
6. Advocate to the State Government to minimise the negative impacts of gambling within the municipality;
7. Advocate to the State Government for Frankston City to be included in the Electronic Gaming Machine (EGM) Cap Legislation and so have a “cap” applied on the number of EGMs in the municipality and seek a reduction in overall machine numbers in line with community standards;
8. Continue to work with gambling stakeholders on issues identified as having a local impact;
9. Collaborate with other local governments on current and emerging issues;

4 Taken from the Victorian Gambling Regulation Act (2003) S.3.3.5(4a).
10. Support and facilitate community organisations seeking grants and sponsorship;
11. Support effective communication in community education and awareness surrounding problem gambling;
12. Promote recreational activities in Frankston City to achieve a balance of lifestyle choices to the community.

**Action Plan**

There were four main goals of the gambling policy action plan and they were:

- **Advocacy** – to advocate on behalf of the community on issues relating to gambling;
- **Community Health and Wellbeing** – to be at the forefront of changing and emerging social issues to meet community expectations of Council in dealing with the issue of gambling;
- **Planning** – effectively plan by drawing upon and commissioning research and facilitating consultation with gambling stakeholders and the community;
- **Policy Development** – to ensure that Council’s policy commitments and perspectives on gambling were reflective of current resident attitudes to gambling and State Government legislative changes.

Each goal in the Action Plan attempted to address particular gambling related matters. The key strategies of advocacy were media coverage, representation on key issues and involvement in local government networks such as LGWGOG and collaboration with other regional local governments. In the instance of community health and wellbeing, the strategies were to promote a balance lifestyle; support other agency initiatives relating to problem gambling prevention; respond to new gambling technology as they arose and support community gambling education programmes. The third goal of planning included strategies such as: conducting research, engaging in community consultation, responding to Victorian Commission for Gambling Regulation (VCGR) venue applications, evaluation of the Action Plan, supporting a reduction of the number of EGMs in Frankston City and the equal distribution of EGMs in Frankston City amongst hotels and clubs. The final goal was policy development which was directed at reviewing Council’s gambling policy and action plan, keeping up-to-date with changes to gambling, stating that Council would not accept financial support or contributions from the gambling industry for its operations, and integrating the gambling policy into the public health plan and strategic planning.

**Conclusion**

Now that the Gambling Policy & Action Plan 2005 – 2008 has been adopted by Council, an Implementation Plan will be developed to implement the actions arising from the Policy. The Plan will focus on: Advocating on behalf of the community on gambling related issues at a local, state and federal level; Locating Council at the forefront of emerging issues around gambling; Effective planning around gambling and ensuring that the Policy is up-to-date and reflects current state and federal legislation and community attitudes.
References

Frankston City Council (2000a), *Gambling Policy (Electronic Gaming Machines)*.
Frankston City Council (2000b), *Report on Effects of Electronic Gaming Machines*.
COLLATERAL DAMAGE: HOW THE LEGAL SYSTEM HAS FAILED FAMILIES OF PROBLEM GAMBLERS

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ABSTRACT

Although considerable resources are devoted to the research and treatment of problem gamblers, little effort is directed towards the family members who may severely impacted. This paper considers 10 areas where Federal and State law fails to provide adequate protection or redress for family members, especially partners, who are impacted financially by a problem gambler. For each topic, the author commences with a common wish expressed by partners or family members of a problem gambler and attempts to explain the legal obstacles that make it difficult to achieve what appears to be a simple matter. The protection of family property, prevention of further financial loss, and lack of consideration of the financial impacts of problem gambling are all covered.

Why Families?

Considerable attention is given to the means of ‘curing’ problem gamblers, but little thought or attention is given to the needs of their families and others affected by them. This is unfortunate as it is often the case that the ‘problem gambler’ does not want to be ‘cured’ and it is the family members who are most active in seeking assistance.

The Productivity Commission (1999) (from p.7.25 to 7.36) identified a number of impacts on gambler’s families, including:
  • Not enough time for family
  • Relationship breakdown
  • Violence
  • Money problems (owed money, pawned goods, bankruptcy, lost house, etc.)
  • Crime

The Productivity Commission (1999) quoted the Australian Medical Association submission to it (at p. 7.26) that:

“The gambler’s preoccupation with gambling, mood swings, potential for substance abuse, potential to commit crimes, and financial difficulties place an enormous burden on their family.”

The Commission estimated that on average 7.3 people are adversely affected by each problem gambler (at p.7.34). That is over 20% of the population.

The Federal Government’s recently announced plan (Peatling, 2006) to establish a chain of 65 “family relationship centres” may provide the free or affordable relationship...
counselling services that are currently missing in many parts of Australia. Unfortunately the Government has not considered that in the context of gambling these family relationship centres may actually hasten the termination of relationships. This is because any relationship that includes problem gambling is heading for poverty, and most partners of gamblers will be better off financially by separating at an early stage.

In our legal centre we do not advocate separation; we simply provide information and encourage the partners of gamblers to consider all options before they make their own choices. Unfortunately, the range of options for many may be quite limited due to the lack of practical legal protection available for family members.

In this paper I have posed 10 common concerns in the areas of money problems and relationship breakdown raised by family members of problem gamblers and attempt to demonstrate how our legal system fails to adequately assist family members in each case.

1. I want to protect my home

What do Australians value more, their partner or their home? That is the hard choice faced by many partners of problem gamblers. Stay together and grow steadily poorer, or cut your losses and end the relationship now.

Gambling debts will continue to increase, first unsecured, then secured on the family home by way of consolidation loan. Then more unsecured debts follow and the cycle continues until the home has to be sold to satisfy the demands of creditors.


Unfortunately Family & De Facto laws do not provide any practical means by which family property can be effectively protected without moving to end the relationship. The legislation is designed to facilitate division of property between married spouses or de facto partners upon the breakdown of the relationship. It is necessary to separate before couples can get a court order for property settlement. Once they have the court order, they can usually obtain an exemption from stamp duty on the transfer of property and other tax advantages. They may be able to claim Centrelink benefits for 2 households and possibly Child Support.

Partners who decide to remain in the relationship but still wish to save their homes have some legal and practical options, but none can be guaranteed effective against a problem gambler desperate to get cash.
What about a caveat?

There are lots of bush lawyers who have great faith in the magical properties of the caveat. “Caveat” is the Latin word for warning, and our wonderful Torrens system of land registration allows those claiming a legal or equitable interest in land to file a caveat against the registered title, warning the world of their claim against the property.

A caveat provides helpful protection where there is a risk of the gambler forging the signature of a co-owner on a mortgage or transfer. This is important because where forgery occurs the Torrens system upholds the rights of an innocent transferee or mortgagee against the registered owner. There are compensation schemes for innocent victims of forgery, but these are limited in their operation.

Unfortunately a spouse or de facto partner does not acquire a caveatable interest in the gambler’s real property merely by reason of the relationship. Instead they must resort to claiming an equitable interest such as a constructive trust, based on their financial or other contributions to the acquisition or improvement of the land. By lodging a caveat, they must still wait in line behind some other creditors such as registered mortgagees.

Worse, the caveat does not prevent problem gamblers acquiring unsecured credit. As time passes, problem gamblers continue to accumulate debts. Eventually the point of crisis arrives, and the problem gambler will use their full powers of persuasion to get their partner to agree to use the equity in the home to consolidate their unsecured gambling debts. If a partner refuses, the problem gambler may become bankrupt, which means that the gambler’s interest in the home is then acquired by a trustee in bankruptcy. It is little comfort that the trustee will give the partner the first option to purchase the problem gambler’s interest in the home.

2. I want to protect my money and personal property

Bank accounts, housekeeping money, cars, furniture, jewellery, electronics – all are at risk when a problem gambler lives in the house. The old adage that possession is 9/10ths of the law applies so it is very difficult to recover personal property after it disappears.

Financial institutions are particularly problematic where family members want to have joint accounts where both must sign to access funds. They may use the Privacy Act 1988 (Cth), Consumer Credit Code 1995 and any other law they can think of to frustrate the wishes of the gambler’s spouse who is trying to prevent the gambler accessing joint funds or credit.

Likewise, the Commonwealth Privacy Act also makes it difficult for family members to ascertain the extent of the gambler’s debts. Where there are joint debts, financial institutions may be reluctant to provide information to only one joint debtor without the written authority of the gambler partner. This creates a ridiculous scenario where a lender demands payments on a joint debt from a debtor, but refuses to provide information about the account without the written authority of the debtor’s partner.
Where remedies are sought from financial institutions for forgery, family members are expected to report the fraud to the police for charges to be laid. Few family members are willing to report a close relative to the police, especially if both are living under the one roof.

Similarly, it may be legally possible for the family member to recover stolen property from a pawnbroker or dealer in second-hand goods, but usually the pawnbroker requires a report to be made to the police, which will result in criminal charges.

The best way to protect personal property from a problem gambler is simply to get it out of the house and ask a trusted relative or friend to look after it. The best way to manage finances is to have separate accounts except possibly for a joint current account which has a low balance and no credit facility.

3. How can I get out of a joint loan?

Family members or friends are often talked into signing joint loan documents with a problem gambler. This may be because the problem gambler has a poor credit report or inadequate income. Of course the problem gambler then fails to make the payments and the family member or friend is stuck with the liability. This is frequently referred to as “relationship debt” or “sexually transmitted debt”. If the gambler does not pay then the family member is liable to pay the full amount to the creditor. The family member has a right to claim the money back from the gambler, but this may be difficult to achieve.

Problem gamblers can be very persuasive when they want money. Family members can find it very difficult to refuse when they are under pressure to sign loan applications. The problem gambler always promises to be good, not gamble, make the payments, and anything else that is likely to get them the cash. If the family member refuses, the gambler may simply forge their signature on the loan application anyway.

The Consumer Credit Code and other consumer protection laws are heavy on emphasising the “pre-contract disclosure” that credit providers must make. Of course very few Australians ever bother to read the fine print and don’t realise they are liable to repay the entire loan, not just “their half”. Unfortunately, the Consumer Credit Code is of little assistance to someone who wants to get out of their liability a joint loan after the money has been advanced.

4. I want to find out what my partner has been doing

Privacy Laws have been adopted and promoted with great enthusiasm by the Federal Government and some States and Territories. The gaming industry is required to comply with privacy laws, however no thought has been given to the way in which privacy provides an effective cloak of secrecy for problem gamblers.
Records of gaming expenditure

Privacy laws of the Commonwealth and some States and Territories make it illegal for gaming venues to provide information about a patron’s gambling expenditure to family members without authority from the gambler or legal requirement, such as a court subpoena. There is no law requiring the recording of gambling expenditure, so a subpoena can be useless as well.

Records are kept by many gambling venues to facilitate loyalty schemes and for marketing purposes. However that depends on gamblers choosing to sign up for the loyalty schemes. Many problem gamblers are so secretive that they choose not to sign up, even though they miss out on the benefits of loyalty schemes. So in those cases there are simply no records in existence to indicate how much has been lost gambling.

Privacy laws may even make it illegal for a gaming venue to tell a family member whether or not their relative attends the venue and gambles there.

AUSTRAC

AUSTRAC is a Commonwealth Government agency that describes itself as “Australia's anti-money laundering regulator and specialist financial intelligence unit” (Austrac, 2006). Yes, Big Brother is really watching. Unfortunately it is not doing anything about problem gambling. The NSW Privacy Commissioner (Puplick, 2000) said:

“(Under) the Financial Transactions Act 1988 (Cth) a cash dealer who conducts a cash transaction is required to report financial transactions over $10,000 to AUSTRAC. Casinos have often been used for the purpose of money laundering and under the Act a person who carries on a business of operating a gambling house or casino is a cash dealer for the purposes of the Act. AUSTRAC is however, required to comply with the information privacy principles contained in the federal Privacy Act. I pause to comment that the recent case in Sydney where a casino really felt it was none of its business to be even concerned about dealing with someone, allegedly a purveyor of roast ducks, who could gamble in excess of $90 million over a relatively brief period, raises in the public mind the question of whether or not our regulatory and supervisory systems are anywhere near adequate to protect the public interest.”

5. I want the gambling venue to ban my relative

Third party exclusion is only sought by a very small number of family members as it is quite confrontational and the process of applying for it can be somewhat intrusive.

Since 1 July 2004, South Australia has provided for third party exclusions to be processed by its Independent Gambling Authority (the IGA) under the Problem Gambling Family Protection Orders Act 2004. In a detailed process (Independent Gambling Authority 2004) the IGA investigates the merits of involuntary exclusion, giving the problem gambler the chance to respond. The IGA may make a problem gambling family protection order if there is a reasonable apprehension that the gambler may cause serious harm to family members because of problem gambling; and the IGA is
satisfied that the making of the order is appropriate in the circumstances. The IGA is
given a wide range of powers, including powers to:

- Require the gambler’s participation in a program of counselling, rehabilitation or
  special education;
- Bar the gambler from taking part in gambling activities;
- Bar the gambler from attending gaming premises;
- Bar the gambler from a locality;
- Require the gambler to close gambling accounts;
- Require the gambler to refrain from contacting, harassing, threatening or
  intimidating a family member, or any other person at a place where the family
  member resides or works, to demand or request money for the purposes of
  gambling activities;
- Bar the gambler from taking possession of personal property (including money)
  reasonably needed by the family member;
- Require the gambler to return specified personal property (including money) to a
  family member or to allow a family member to recover or have access to or make
  use of specified personal property;
- Require the gambler to make arrangements for specified family members to be
  paid or have access to certain money held by third parties.

The IGA also has power to bar people from the Adelaide Casino under s.45 Casino Act
1997 on any reasonable ground including the ground that the gambler is placing his or
her own welfare, or the welfare of dependents, at risk through gambling.

The South Australian law is the most comprehensive in the world and it will be
interesting to see how it works out in practice. In its first year of operation, the IGA had
about 50-60 enquiries which resulted in 4 formal applications (Independent Gambling
Authority 2004). The focus is on providing a broad approach to addressing the needs of
the family where problem gambling is an issue. However the potential for an order to be
made must be a powerful motivating factor for the problem gambler to participate in
mediation with family members.

The law is narrower in Tasmania, where section 112C Gaming Control Act provides that
a person who has a close personal interest in the welfare of a gambler can apply to the
Tasmanian Gaming Commission for a third party exclusion order. On receipt of the
application, the Commission provides the gambler with the opportunity to reply to the
allegations before deciding whether to make an involuntary exclusion order. The
Commission will exclude the problem gambler if it is satisfied that it is in the interests of
the problem gambler and the public interest to make the exclusion order.

In the Australian Capital Territory, a gambling venue must exclude a person from gambling if
the venue has reasonable grounds for believing that the welfare of the person, or any of the
person’s dependants, is seriously at risk because of the person’s gambling problem. (s. 1.14
Gambling Code of Conduct). There is a right of review by the A.C.T. Gambling and Racing
Commission.

Queensland has a voluntary scheme whereby gaming venues have the power to give a
problem gambler a written exclusion direction which lasts between 1 and 5 years. There
There is no sanction for gaming venues which decline to give a problem gambler a written direction when requested to do so by a family member (s.261C *Gaming Machines Act* 1991). There is no statistics on the extent to which gaming venues utilize this power, but anecdotal evidence from Queensland counsellors suggest that it its use is exceedingly rare.

There are also voluntary industry schemes, such as BetSafe in N.S.W. which provides for 3rd party exclusions, but no other State or Territory law provides for involuntary or 3rd party exclusion. In those other States and Territories gaming venues are not required to bar problem gamblers, even if they have actual knowledge that a problem gambler regularly attending their venue is causing serious harm to themselves or others.

### 6. I want the venue to pay back the money stolen from me

There has been recent attention given to the issue of gambling venues receiving stolen money. Essentially, the law says that if you receive stolen items of property you don’t get any legal right to keep them. With money things are different, because it is not usually identifiable.

However if you knew or ought to have known that the money was stolen, then you may be required to compensate the rightful owner. Sean Clifford (King 2005) was a 23 year-old Macquarie Bank employee who found $263,000 on a Sydney street. Instead of handing it in to police he stashed part of it in a bag under his desk at work and the rest in a safety deposit box. Another employee spotted the money and tipped off the police, who charged Clifford with the crime of ‘stealing by finding’. He pleaded guilty and received a good behaviour bond.

In the English case of *Lipkin Gorman v Karpnale Ltd* (1991), a solicitor stole funds from his firm’s trust account and gambled it in a London casino. The casino should have known that the money was stolen, because on one occasion the solicitor cashed a bank cheque payable to his firm, which he endorsed. Although the casino had a defence of “change of position” the court held that it was necessary to consider the ‘totality of bets’, so both winning and losing bets should be taken into account.

Frank De Stefano was a former mayor of Geelong who turned out to be a crook (Gregory, 2003). He was charged with stealing $8.3 million of trust money, including $5 million that belonged to a quadriplegic. He gambled much of the money at Crown Casino, where he had a $140,000 betting limit. The Age editorial (2002) explains it like this:

“Mr De Stefano’s case is one of many that come before the courts in Melbourne involving gambling addicts who have stolen from their families, clients and employers. A river of stolen money flows into the pockets of the owners of Crown Casino and the amazing thing is that no one ever says, “Give it back. You do not have good title to this money.” And no one from Crown ever says, “Gosh. We’ve taken $5 million from a young man crippled by hospital negligence. We should give it all back straight away.”

If you steal a car and person B buys it from you in good faith but without checking your legal title to the vehicle, B will have the car taken from him. If he knew the car to be stolen, then he will be
charged with receiving stolen goods. But, it seems, if you steal money from person C, as long as you spend it before the investigators arrive, it belongs to the receiver of the stolen money and it cannot be reclaimed.

*I have taxed various lawyers with this anomaly and they give me a pitying look. Don’t I understand that money is different?*

**Different in what way?**

*Well, it just is, OK? A video recorder, computer, toaster, jewellery and so on are one thing, but money is another thing altogether. If we complicated the title of money and put responsibility on the receiver of stolen cash to be prudent in taking large sums, we would wipe out a big slice of the capitalist enterprise. With money, possession is nine points of the law, and the other point is getting rid of it quickly, because once it has changed hands it is out of the legal equation. The thief may go to jail, but the receiver is in the clear.*

It is hard to believe that the managers of a casino would not notice something odd about the behaviour of a man who says that he had a personality change when he was at a betting shop, and became “like an animal”. Would you be extending $140,000 credit to someone who behaved like an animal?"

In another case (Buttler, 2005), a Bendigo Bank employee stole $20 million and gambled it at Crown Casino. The Bank spokesman said:

“We will have a look at the circumstances around the alleged offences, look at her behaviour and interaction with Crown casino and make a decision whether we take action against Crown or not….what we are questioning is how does a suburban mum become a VIP member of Crown Casino and allegedly put a large amount of money through a gambling establishment?"

In the case of *K & S Corporation v SportingBet Australia Pty Ltd*, (2003) the plaintiff’s employee Telford gambled $22 million of his employer’s money. K. & S. Corporation sued SportingBet to recover the stolen money. The critical issue was whether SportingBet had the required level of knowledge or notice as to the source of the monies to make it a constructive trustee.

Initially all SportingBet had on Telford was a telephone number and a post office box number but it did knowingly allow Telford to operate an account in the false name of “Craig Teller”. Over time, SportingBet gathered more and more information about Telford. Despite the fact that Telford was betting millions of dollars, SportingBet made no effort to ascertain where he was getting the money from or whether it was stolen money.

The trial judge formed the view that after a particular time, SportingBet “*wilfully and recklessly failed to make the inquiries an honest and reasonable man would have made*” and SportingBet was liable to reimburse $2.6 million of the total of $22 million stolen by Telford.

The Commonwealth Bank manager Kim Faithfull (O’Brien, 2003) managed to steal $19 million of the bank’s money which was mostly lost with the Darwin bookmaker IASBet. The Bank has instituted proceedings alleging that IASBet knew or ought to have known that the money was stolen. Such matters as the case of Grange Hermitage wine sent by IASBet to the Commonwealth Bank at Karratha will presumably be raised in court by the
Bank. Predictably, IASBet has defended the claim, denying any knowledge and claiming the Bank was responsible for not keeping closer watch on its employees.

These cases all demonstrate the difficulty faced by families who want to recover stolen money. Not only does the gambling industry strive to remain ignorant of the sources of its customer’s funds, but it will spend huge amounts resisting claims for repayment.

On the other hand, a simple letter from a family member pointing out that the gambler is gambling stolen family money should be effective to put the gambling venue on notice that the money is stolen. This may result in the gambling venue refusing to permit the gambler from continuing to gamble there, or provide a legal basis to recover stolen money gambled at the venue after the letter is received.

7. **I want my partner to pay housekeeping money**

A spouse can ask the gambler nicely to contribute to housekeeping. If the gambler refuses or neglects to fulfil a promise to pay, the spouse has the legal right to apply to the Family or Local Court under s.72 Family Law Act for an order for spouse maintenance. Urgent orders can be made under section 77.

However, few spouses of gamblers make such applications because:
- It is slow, expensive and Legal Aid is rarely available
- It may be hard to prove the need for such an order without good evidence
- Court proceedings are adversarial and family members are often intimidated by the problem gambler
- The Family Court will not take problem gambling into account as ‘fault’ is not a relevant factor in maintenance applications
- Even if an order is made, it will be difficult to actually extract the money from the problem gambler.

There are few reported cases. One successful case was *Wong v Wong* (1976), the husband admitted to making a substantial income from betting on horses. He claimed to have given up gambling, but the judge didn’t believe him and ordered that he pay spouse maintenance to the wife from his gambling income.

**Other relatives**

The Family Law Act and De Facto legislation provides no assistance for other family members such as children or parents seeking to obtain housekeeping monies from a problem gambler.

There may be some general law remedies based on contract or trusts law, but these are too expensive and complicated for any but the very rich to access.
8. I want gambling expenditure taken into account in my settlement

In many cases, the relationship ends after a series of gambling-related financial disasters has greatly reduced the total of family assets. The ex-partner is angry that the asset pool has been diminished and wants the gambler to pay.

The Family Court has discretion to take a wide range of factors into account under s.75(2) and s.79(4) Family Law Act 1975. The Family Court has decided in a number of cases that it will take substantial gambling losses into account as a form of financial misbehaviour that will reduce the gambler’s share of the settlement. However practical difficulties make it very difficult for the non-gambling spouse to achieve an equitable result.

The 3 most common problems that arise are:
1. It is difficult to prove the extent of the gambling losses
2. Judges are reluctant to believe the extent of gambling losses
3. Even if the losses are proven, creditors will be usually be given priority over the non-gambling spouse, who gets what is left.

Extent of gambling losses

Courts require evidence before they will accept an assertion to be fact. It is very difficult to prove the extent of gambling losses due to the lack of records of gambling expenditure and because gamblers’ memories are notoriously poor. Allegations of gambling losses are invariably denied or played down.

The sort of pathetic evidence of gambling losses that ends up before a court is illustrated in the Marriage of Truscott (1986), where the following cross-examination is reported: “And you would agree, would you not, that although you had a winning day here and there, you definitely lost money on this? – Yes, I did lose. And you would shudder to think how much, if you could work it out, would you not? – In retrospect, I guess I would.”
Hardly an effective way of quantifying the gambling expenditure.

In the case of Simpson-Phillips v Stroud (2000), the N.S.W. Court of Appeal considered the negative contribution in a de facto relationship where the primary judge found that the gambler “made little, if any, financial contribution towards the household or towards the family unit. Indeed, to a very large extent (at least to an amount exceeding $14,000) the (gambler) expended money on gambling, and was largely supported in that activity by monetary advances from the respondent.”
In this case, the gambling losses obviously exceeded $14,000, but the judge was only willing to accept that figure as firm. The gambler appealed against the judgment and nearly succeeded. The Court of Appeal were reluctant to accept the findings of the primary judge in relation to the negative contribution and said that the gambler’s financial and other contributions might have been underestimated.
Reluctance of judges to believe claims of gambling losses

Judges rarely have first-hand experience of problem gambling. They often express surprise about the amount of money that can be lost by a problem gambler. For example, in the *Marriage of De Angelis* (1999), the Full Court of the Family Court of Australia considered the negative contribution to the assets of a marriage of a pathological gambler. Notwithstanding clear evidence by way of a psychiatrist’s report and admissions of gambling losses of hundreds of thousands of dollars (some of which was stolen), the judges considered that gambling losses should ordinarily be treated as an entertainment expense, like the cost of playing golf, rather than a negative contribution to family assets, saying:

“We are firmly of the view that, notwithstanding that the wife’s gambling may have been her form of entertainment or indeed a result of illness, and also notwithstanding that the husband also spent money on golf, the sums lost by the wife through gambling are very high in the context of the total value of the parties’ overall assets. Further, we are of the view that the husband is entitled to some recompense or adjustment in these proceedings for the losses.”

This reluctance to accept the extent of gambling losses and misunderstanding of the nature of problem gambling are common themes in gambling-related judgments.

Claims of creditors

A husband’s gambling led to business failure in the *Marriage of Mead* (1983), where “the husband so frequently took money from the till and spent it on drinking and gambling that the working capital of the business was exhausted and there was no money left to purchase goods for resale”. The only asset left was the equity in the former matrimonial home and even that was subject to a mortgage. There were outstanding debts that had been incurred by the husband, who had gambled more than his fair share of the family assets. The wife asked the court to order the husband to transfer the home to her, and leave him to repay the outstanding business creditors. The judge declined the wife’s request and ordered the transfer of the home to her, but subject to the existing debts. In other words, the wife got nothing out of the court, as she was liable to use the remaining assets to pay the husband’s gambling debts.

The principle that other creditors of problem gamblers take priority over families has now been enshrined in the *Family Law Act*. This year, the law has been amended so that s.75(2)(ha) now requires a judge to consider “the effect of any proposed order on the ability of a creditor of a party to recover the creditor’s debt”. In practice the effect of this provision is that creditors will nearly always have priority over spouses in the Family Court.

9. **Is my property safe if my partner becomes bankrupt?**

Where a problem gambler becomes bankrupt, there is often a tug-of-war between the trustee in bankruptcy and the gambler’s spouse over the remaining assets. Bankruptcy law contains “claw-back” powers available to creditors of gamblers who become
bankrupt after transferring property to their former spouses. Creditors can use the "claw-back" powers to make the former spouse hand over property to them.

One common issue in the transfer of property between spouses is the extent to which the transferor discloses all their debts to the spouse, court and creditors. The Full Family Court in *Semmens v Commonwealth* (1990) said "whilst we think it inappropriate, in the absence of Rules of Court to this effect, to require notices to be given to third parties in all such circumstances, it must be recognised that the failure to do so in particular cases can severely impinge upon the 'legitimate interests of third parties' and may almost inevitably in many cases constitute a 'miscarriage of justice'".

Not surprisingly, many problem gamblers are unwilling to disclose all their debts to their spouse, the Family Court or creditors. So in practice, there are many situations where a problem gambler may reach an agreement with the spouse and have that agreement made into Family Court consent orders, without disclosing some creditors.

Under s.79A *Family Law Act*, the Family Court has the power to vary or set aside or vary a property settlement where "the court is satisfied there has been a miscarriage of justice by reason of fraud, duress, suppression of evidence (including failure to disclose relevant information), the giving of false evidence or any other circumstance." So spouses may think that they have a final property settlement, only to find it later set aside due to the fact that the gamblers didn’t disclose all their debts.

Recent changes to the *Family Law Act* brought about by the *Bankruptcy and Family Law Legislation Amendment Act* 2005 (commenced 19th September 2005) are designed to strengthen the position of creditors and trustees in bankruptcy and weaken the position of spouses of bankrupts (Brereton and Wahhab, 2005). Trustees in bankruptcy are now able to apply directly to the Family Court to set aside property orders. This will typically happen where the gambler was in financial difficulties at the time of the property settlement. In these cases, the trustee effectively ‘stands in the shoes’ of the bankrupt gambler and is able to make submissions on behalf of creditors in relation to the matrimonial property. The bankrupt does not get to participate, it is a battle between trustee and spouse.

Under the new law, where a couple are in the middle of Family Court property proceedings and one becomes bankrupt, the bankrupt’s trustee can take over and continue the property matter. Where a person becomes bankrupt after a property order is made, the trustee can apply to have the property case redecided.

And where a couple separate after one of them becomes bankrupt, but during the period of bankruptcy (usually 3 years), the non-bankrupt spouse has the right to apply to the Family Court for a property settlement against the trustee. This is useful if the non-bankrupt spouse can establish that they contributed more than half of jointly owned property (so there is a resulting trust in favour of the one who contributed more).

And where the parties entered into a “Binding Financial Agreement” under the *Family Law Act* thinking that they were secure against bankruptcy, they are going to be disappointed (Ash, 2005). You may remember that Jodee Rich of OneTel fame used one
of these to transfer most of his property to his wife shortly before becoming bankrupt in 2001. These Binding Financial Agreements are no longer protected against bankruptcy.

10. I want to make a will leaving the problem gambler nothing

Family members of problem gamblers should be advised to consider changing their wills. A gift to a gambler is a gift to the casino. Unfortunately, laws such as the N.S.W. Family Provision Act 1982 make it very difficult for a testator to prevent a problem gambler relatives making claims their estate. These laws enable family members to ask the courts to give them something out of their relative’s estate when they got little or nothing under the will.

It is the fact of the relationship and/or financial dependency that gives the Family Provision Act claim strength. So where a problem gambler child has been receiving financial handouts from a parent for years, has gambled the lot and is now living in poverty, that child is going to have a much stronger claim to a larger part of their parents estate than the ordinary child who didn’t ask for handouts, has saved instead of gambled, and is now financially secure.

The general principle is found in Bondy v Vavros (1988), where Young J. said: “…in one sense it does not matter if I form the view that a plaintiff is a spendthrift. If a person is entitled to an order, what they do with the money that they receive is their business and it is none of my affair if I very much fear that the money may be wasted on wine, women and song in a short period of time.”

In Re Estate of Uncle; McLean v Public Trustee (2001), the gambler’s mother made a will leaving $12,000 to her problem gambler daughter and the rest to be divided amongst other children and grandchildren. The gambler applied for a greater share of the estate claiming that she wanted to buy a car for work and furniture for her home. She had a long history of gambling problems. She had been dismissed by an employer for gambling. She had attended the Salvation Army Bridge program but had relapsed afterwards. She had received $9,000 from her mother while still alive, and gambled it all. Notwithstanding all this evidence, the court still increased her share to $45,000, to buy a car, furniture and other items by the Public Trustee for her use. The shares of the other children and grandchildren were reduced to give more to the gambler.

In Alquist v ANZ Executors & Trustee Co Ltd (2004), a mother made a will leaving nothing for her gambler son and his de facto son but left all her estate to her granddaughter. The son and his wife were 44 years of age and lived in the mother’s home. The son did not work, but spent his time gambling and drinking. He had gambled and drank his way through $236,000 within 2 years prior to the death of his mother, although he only admitted to gambling $300-$400 a week. By contrast the granddaughter (gambler’s daughter) was a promising student with a HECS debt of $100K. The judge decided to award the house to the gambler, which was the major asset in the estate, on the grounds of the son’s past financial dependency and current poor financial circumstances. The granddaughter was left to pay her HECS debt the hard way.
Time to change our priorities

Families are often torn apart by problem gambling. There is constant tension about gambling expenditure, lies, manipulation and sometimes violence. Families of problem gamblers are looking for help. Yet governments, industry, researchers and counsellors have largely ignored the significant needs of families of problem gamblers. As illustrated by this brief overview, the law provides scant assistance for the gambler’s partners and other family members.

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THE SELF-CONCEPTS AND POSSIBLE SELVES OF PROBLEM GAMBLERS: A QUALITATIVE EXPLORATION

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ABSTRACT

The study investigated the self-concepts and possible selves of pathological gamblers. Six female egm users were recruited from a Victorian problem gambling counselling service. Three participants were currently gambling and three were not gambling. They were interviewed in-depth and using thematic analysis four dominant themes were identified. (1) Self-concepts tended to be consistent across all participants, (2) having a past self as being the dominant characteristics of possible selves coincided with greater possible selves clarity, (3) non-gambler’s had more elaborate and specific plans for how to create change than did gambler’s, and (4) non-gambler’s had more plans to become possible selves which address goals of intrinsic meaning, rather then having a general goal to ‘not gamble’. The findings are discussed in terms of implications for the cognitive theory of possible selves and suggestions for further research to investigate the utility of the constructs as a basis for a treatment modality.

Introduction

Although the current research is concerned with pathological gambling, the term ‘problem gambling’ will often be used in its place, namely as the research participants themselves are comfortable with this term. It is recognised however that this does pose a difficulty, as “pathological gambling” is generally recognised as behaviours which meet at least five out of the ten DSM-IV-TR (American Psychiatric Association, 2000) criteria for the disorder for example, and there have been calls for “problem gambling” to be equally recognised as behaviours meeting three or four of these criteria (Toneatto & Millar, 2004).

Pathological gambling is classified as a disorder of impulse-control in the DSM-IV-TR (American Psychiatric Association, 2000). Impulsiveness has been found to be an important predictor of problem gambling (Clarke, 2004), although some research suggests that this is more so the case for men than it is for woman (Lightsey & Hulsey, 2002). With impulsivity being at least an important characteristic of problem gambling, it is unfortunate to note the 2003 research of Leblond, Ladoucer and Blaszczynski which found that impulsivity at intake was the main factor which differentiated participants who discontinued problem gambling treatment compared to those who completed it.
As such, the continuity from diagnosis to treatment, and from theory to practice, deserves particular attention if an overall view of problem gambling is to be complete. Rich (1998) observes that at this point no research has been able to establish causality, and it is considered that there is no single theory which is adequate to explain all the complexities involved in problem gambling (Blaszczynski & Nower, 2002).

Part of the picture however comes from the empirical demonstration that (negative) deferment of gratification is an important risk factor in predicting pathological gambling (Parke, Griffiths & Irwing, 2004), and pathological gamblers discount delayed rewards at higher rates than do non-problem gamblers (Petry, 2001). Tice, Bratslavsky and Baumeister (2001) offer an explanation for these observations. They demonstrate empirically that short-term affect regulation takes priority over other self-regulatory goals when people are upset.

As such, if a perceived means of alleviating a negative mood is to gamble, than this course of action tends to be considered preferable over not taking it, and remaining in the negative mood. Such connections are vital to be drawn, as in this light not delaying gratification may be seen as possibly being mood or situation specific for example, and mood may be impacting upon a cognitive decision to gamble.

Problem gamblers tend to score clinically significantly on depression measures (Moravec & Munley, 1983), and it has been shown that gamblers themselves identify a perception that states of depression and frustration, and a belief in chasing losses, are the most pronounced determinants of impaired control experienced by problem gamblers (Corless & Dickerson, 1989). Stress and anxiety have also been found to be factors in the onset of problem gambling (Coman, Burrows & Evans, 1997), and Mellers, Ritov and Schwartz write that people “anticipate how they will feel about the outcomes of decisions and use their predictions to guide choice” (1999, p.332). In a recent study by Ricketts and Macaskill (2004), gambling to manage negative emotional states is what differentiated normal and problem gamblers, and in a study of clients accessing problem gambling counselling in Victoria, ninety percent self reported gambling as a means to escape problems or alleviate a dysphoric mood (Jackson et al., 2000).

Cognitive-Behavioural Therapy (CBT) favours developing a set of strategies for relapse prevention which are aimed to maintain behaviour change over the long term (Dimeff & Marlatt, 1998). Cognitive therapy is a popular form of counselling for problem gamblers (Coman, Evans & Burrows, 2003), and Coman, Evans and Burrows (2002) observe that cognitive-behavioural techniques are the most commonly used techniques to assist individuals with gambling related difficulties.

In terms of the focus CBT takes, Ladouceur is of the firm view that “clinicians should work on increasing gamblers’ awareness of both their erroneous perceptions and their strong conviction about these thoughts” (2004, p.502). Ladouceur, Sylvain, Boutin and Doucet (2002) contend that the erroneous cognitions are the primary variable which maintains excessive gambling behaviours. In addition to targeting cognitive distortions, treatment involving cue exposure is also a “must” to consider according to Tavares, Zilberman and el-Guebaly (2003, p.22). However the likes of Greenberg are critical of the classical cognitive therapy views, considering them to be “oversimplified and
misleading when one attempts to understand the complex interactions of emotion, cognition, motivation, and behaviour” (2002, p.159).

Yet with CBT being a common treatment, an outcome for gamblers who either successfully abstain from gambling or exercise controlled gambling during counselling, is that their response to treatment has been shown to be associated with a reduction in anxiety, depression and arousal levels (Blaszczynski, McConaghy & Frankova, 1991). Although there is certain debate regarding treatment, it is interesting to keep in mind that in a recent study of counselling outcomes for clients of problem gambling counselling in Victoria, Smith, Thomas and Jackson (2004) found that the therapeutic alliance had the strongest predictive power regarding the level of achieved problem resolution.

In linking gambling and self-concept research, with a notable exception from Hudak (1993) who studied gambling and self-concept regarding the Addictive Personality Syndrome (yet without addressing the notion of possible selves), the construct of self-concept is sorely lacking from the literature. The construct has been studied in the wider addiction field, for example Fieldman (1995) compared the self-concepts and possible selves of heroin and cocaine addicts (and found no significant differences).

Marsh and Shavelson define self-concept as “a person’s perceptions of him- or herself” (1985, p. 107), and they note that the construct is multifaceted and hierarchically organised. A general theme of many of the definitions of self-concept in the literature include it as having both a descriptive and an evaluative dimension (Strein, 1993). “General self-concept is stable, but as one descends the hierarchy, self-concept becomes increasingly situation specific and as a consequence less stable” (p.107). The situation specific construct is referred to as the “domain-specific self-concept” (Byrne, 2002 p.900). Marsh notes that “no matter how global self-concept is defined, it cannot adequately represent the diversity of content-specific domains of self” (1993, p.990).

For the purposes here Pervin’s definition of self-concept as being the “perceptions and meaning associated with the self” (1993, p.191) which will function as the operational definition. “Self-concept is formed through experiences with the environment and is influenced by environmental reinforcements” (Bong & Skaalvik, 2003 p.3), and it can be viewed “as an anchor and guide in the on going process of perception, interpretation, evaluation, and expectation regarding ourselves and the world around us” (Nurius, 1986 p.429). One’s self-concept is vital as it has a central role in one’s social functioning, sense of well being and self-regulation (Nurius, 1986).

Self-esteem and self-concept have been shown to have a relationship, for example Wiener (1973) demonstrated that high self esteem influences protection of the self-concept. Campbell (1990) postulates that individuals with low self esteem have poorly articulated notions of who and what they are as an individual, and people with high self-esteem have a self-concept of greater clarity compared with people who have low self-esteem.

Campbell (1990) suggests that people with high self-esteem accept positive feedback, which is consistent with their self-concept, and largely reject negative feedback. Whereas people with low self-esteem are effected by both positive and negative feedback. She
attributes this to people with low self-esteem having poorly articulated notions of the self, and the ensuing uncertainty of their self-concept is manifest in a greater susceptibility to environmental feedback. Indeed, Niedenthal, Setterlund and Wherry (1992) found that those with complex self-concepts aren’t as affected by the feedback from others regarding their performance as those with less complex self-concepts.

Given that low self-esteem is a common feature of problem gamblers presenting for treatment, it is important for counsellors to have evidence based practice which draws a link between the simultaneous treatment of low self-esteem and problem gambling behaviours. Other than clarity of the present self-concept which is appearing to be advantageous for the individual, such a plausible link may be provided through the concept of possible selves, which “represent individual’s ideas of what they might become, what they would like to become, and what they are afraid of becoming, and thus provide a conceptual link between cognition and behaviour” (Markus & Nurius, 1986 p.954).

The notions of self-concept and possible selves are firmly held in cognitive theory, where it is considered that “Self-schemas are constructed creatively and selectively from an individual’s past experiences in a particular domain...they determine which stimuli are selected for attention, which stimuli are remembered, and what type of inferences are drawn...In this way, the self-concept becomes a significant regulator of the individual’s behaviour” (Markus & Nurius, 1986 p.955).

In their research, Markus and Nurius (1986) found that out of 150 questionnaire items which listed possibilities (for example, cheat on taxes, be trusted), that on average 51 items were selected as descriptors of the past, 51 for the present, and 80 for the future. As such, it appears that individuals generally believe that they ‘can’ be more than what they ‘are’, and the authors suggest that this is an important source of motivation for individuals to create change in their lives.

“Development can be seen as a process of acquiring and then achieving or resisting certain possible selves” (Markus & Nurius, 1986 p.955), and according to Margee (1999) development also includes the ability to generate possibilities of both a positive and a negative future self. Libby and Eibach state that “a subjective perception of change in the self over time can be defined as a belief that one will behave differently in the present and future than one used to behave in the past” (2002, p.175).

In the words of Cinnirella (1998, p.229) it is “through the process of manufacturing possible selves that individuals devise plans and strategies to achieve or avoid particular outcomes”, and an individual’s repertoire of possible selves can be considered as the “cognitive manifestations of enduring goals, aspirations, motives, fears, and threats” (Markus & Nurius, 1986 p.954). All of which has the potential to be utilised in therapy as change is moved towards.

“Possible selves furnish criteria against which outcomes are evaluated” (Markus & Nurius, 1986 p.956), as possible selves “provide an evaluative and interpretative context for the current view of self” (p.954). Given that it is common for problem gamblers to express shame for their behaviours, Turner and Schallert note that “a shame reaction may
be a warning sign that the current actions are not in line with future goal attainment” (2001, p.320). And very pertinently to individuals with gambling difficulties, “Past selves, to the extent that they may define an individual again in the future, can also be possible selves” (Markus & Nurius, 1986 p. 955).

Markus and Nurius state that possible selves represent “motives by giving specific [cognitive] form to end states” and that the “desire to gain control or to display competence is probably not sufficient…desire must be translated into a vision…and must be accompanied by specific plans and strategies for becoming these possible selves” (1986, p.961). What matters isn’t the actual potential of the possible self coming to fruition, what “is important is that they exist as enduring elements that can be activated as part of the working self-concept” (p.963).

It is this working self-concept which can be the target of counselling, via exploring possible selves, and in the process of doing so, assist the gambler to elaborate their present self-concept and possible selves, and achieve greater clarity with these concepts (which it appears would also assist with self esteem issues). Jenkins (2000) believes that to increase the perseverance and the ability of individuals to accomplish their hoped-for selves, that cognitive therapy techniques may be well served to focus more so upon the self-schema and possible selves.

Given the lack of self-concept and possible selves’ research which has been conducted with a problem gambling population, this research sought to identify some characteristics of the constructs which appear pertinent for problem gamblers. Due to the short fall of alike research available in the literature, this study took the guise of exploration into the area. Quantitative research methods predominate the gambling related literature, yet qualitative methods have also been used. Hanninen and Koski-Jannes (1999) for example asked recovered substance abusers (including a sample of problem gamblers) to write narratives of their story from the third person as a method to investigate the process of recovery from addictive behaviours.

The decision to utilise a qualitative methodology was made as to allow for fluid open ended questions, with the aim of tapping into participants working self-concepts and possible selves. The primary means used here was to ask participants for descriptions of themselves both presently and in the future. Measuring self-concept by using adjectives has a fifty year history, dating back to Stephenson’s development of the Q-sort in 1953, where an individual would be asked to rank order about a hundred adjectives according to their perceived self-relevance.

Cognitive-behavioural interventions favour using a set of strategies to address relapse prevention (Dimeff & Marlatt, 1998), which tend to be geared around ‘danger periods’ and associated ‘triggers’. The present research also sought to investigate whether the practice of identifying and clarifying present self-concepts and possible selves may appear to be of potential use in the development of an alternative model for the relapse prevention phase in problem gambling counselling. As the criticisms mentioned earlier of the likes of Greenberg (2002) concerning views of classical cognitive therapy towards erroneous thoughts for example, the development of a cognitive therapy based on self-
concept and/or possible selves may be advantageous as it would inherently focus on aspects such as aspirations and motivations, and less on ‘illogical thinking’.

Method

Participants

Participants comprised of six women aged between 31 and 64 years ($M = 48.83$, $SD = 11.04$). They were recruited via clients of a problem gambling service in a Victorian city being invited to participate in the research through their counsellor giving them a copy of the plain language statement. Several males clients were included in those who were invited to take part in the research, yet none accepted the offer. Three participants self identified as being present electronic gaming machine players, whilst the remaining three self identified as being former electronic gaming machine players. All participants were actively involved in problem gambling counselling at the time of recruitment.

Materials

The NODS (NORC DSM Screen for Gambling Problems) as developed by the National Opinion Research Centre (NORC) at the University of Chicago (1999) was the assessment tool chosen as it is based upon the DSM-IV criteria (rather than the South Oaks Gambling Screen which was developed using outdated DSM-III criteria). This measure has been demonstrated to be a highly valid and reliable instrument (p.20), and is able to be easily administered either verbally or as a pen and paper questionnaire.

A research interview questionnaire to guide the semi-structured interviews was developed by the researcher. This questionnaire respects the tradition in self-concept research by asking participants to describe themselves, for example by asking “what words would you use to describe yourself?” The questions related to self-concept were simply re-worded to tap into participants perceptions of possible selves, for example by asking “what words would you use to describe the person you could become in the future?”

Comprising part of the research interview questionnaire is an adjective word list developed by Campbell (1990). In her original study using the list participants were asked to rate each adjective on a seven point scale ranging from ‘not at all descriptive of me’ to ‘very descriptive of me’. She used the numerical rating as indications of the level of confidence participants had of their self-concept (as in for example a rating of four showed uncertainty). For ease of verbal administration and simplicity, participants in this research were simply asked to respond to the items in the context of “tell me if you think this word describes you as a person or not” regarding one’s self-concept, and “tell me whether you think this word would describe the person that you could become in the future” for possible selves.

In an approximate fashion informal scoring of the word list being used in this manner resembles Campbell’s method in terms of absolutes of ‘yes’/’no’ responses (to Campbell’s score of 1 or 7), as was uncertainty which was taken to be expressed through not responding to the item in an absolute sense. Campbell’s word list, and the manner in
which it has been used in this research, have not been empirically tested for reliability and validity. Therefore, as intended, it serves as a superficial guide only.

Procedure

All interviews were audio recorded and commenced by the researcher asking the first set of questions contained in the research interview questionnaire (being demographic and extent of gambling data). At that stage participants usually became talkative, and the order in which the self-concept and possible selves questions and the two adjective lists were asked varied according to the natural flow of the conversation. Some participants preferred to discuss possible selves first, and for quieter participants the adjective lists were used first as a further ‘ice breaker’. Although the order of questions remained highly fluid, the administering of the NODS always concluded the interview. This was intentionally done in an attempt to not unduly prompt participants for gambling domain-specific self-concept. Consistent with the remainder of the interview, the NODS was administered verbally.

Data analysis

The analysis of the data was performed using thematic analysis, whereby patterns of experience are listed from direct quotes and paraphrasing common ideas, and the identified patterns are elaborated on and catalogued into sub-themes (Aronson, 1994). The analysis of the NODS questionnaire was conducted as per the associated scoring rules, where respondents receive a single point, and a single point only, if they answer affirmatively to a question related to a given criteria. Although there are seventeen items on the questionnaire, this method of scoring gives a maximum score of ten, which correspond to each of the DSM-IV criteria.

The data resulting from administering Campbell’s (1990) adjective list were categorised into ‘yes’ or ‘no’ responses. In circumstances were respondents did not directly use the words ‘yes’ or ‘no’ to answer the question, responses were transposed from their original form into the latter form. For example, responses such as “sometimes” and “can be” to self-concept items were deemed to be a ‘yes’ response as they (at least superficially) indicated a perceived presence of that adjective being self-relevant.

Results

The six participants were categorised into two groups of three, with those who considered themselves to be still gambling, and those who considered themselves to be no longer gambling (these groups herein are referred to as ‘gamblers’ and ‘non-gamblers’ respectively). The gambler’s averaged approximately 7.00 days since their last gambling episode [approximately as the respondents could only estimate the days since their last episode], with a range of 0 to 14 days ($SD = 5.72$ days). The non-gamblers collectively reported not having gambled for 11, 10 and 4 months, giving a mean of 8.33 months, and an approximate mean of 247.00 days ($SD = 89.93$ days).
**Table 1.**

Length in years since the commencement of gambling behaviours and the duration of the initial period before gambling behaviours became problematic.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Started Gambling</th>
<th>Before Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamblers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mean 7.66</td>
<td>S.D. 3.56</td>
</tr>
<tr>
<td></td>
<td>Mean 2.00</td>
<td>S.D. 2.16</td>
</tr>
<tr>
<td>Non-Gamblers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Mean 7.00</td>
<td>S.D. 2.16</td>
</tr>
<tr>
<td></td>
<td>Mean 2.33</td>
<td>S.D. 1.25</td>
</tr>
</tbody>
</table>

Participants stated the number of years which has elapsed since they commenced gambling, and the number of years from that point until they considered their gambling to have become a “problem”. As shown in Table 1 the participants range from commencing to gamble 5 years ago to 10 years ago, and when the gamblers and non-gamblers are taken as groups they have similar means of 7.66 and 7.00 years respectively. Given the variation across the participants of their length of time gambling before their behaviours became problematic, these figures can not be considered meaningful (for example the SD of 2.16 for the gambling group is larger than $M = 2.00$).

As indicated in Table 2 all participants scored at least five points on the NODS, thus all participants met the DSM-IV criteria for pathological gambling. As a score of five out of a possible ten satisfies the criteria, and four of the six participants scored eight or higher, these scores can be considered high.

Using responses not containing the absolute words of ‘yes’ and ‘no’ on Campbell’s (1990) adjective list as an indication of uncertainty in the self-concept and possible selves, both groups had similar means for self-concept as shown in Table 3.

**Table 2.**

Scores on the National Opinion DSM Screen for Gambling Problems.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamblers</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>9</td>
</tr>
<tr>
<td>B</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>8</td>
</tr>
<tr>
<td>Non-Gamblers</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>7</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mean 8.00</td>
</tr>
</tbody>
</table>

---

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Differences emerged with possible selves, where the gamblers group expressed more uncertainty than did the non-gamblers. Overall three respondents had less uncertainty for their possible selves than for their current self-concept (one gambler and two non-gamblers), two respondents maintained the same uncertainty for both aspects (one gambler and one non-gambler) and the final respondent (a gambler) expressed greater uncertainty for her possible self than she did for her present self-concept.

Table 3.

Number of responses to adjective list not directly using the words ‘yes’ or ‘no’.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Self Concept</th>
<th>Possible Selves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamblers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>B</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Mean</td>
<td>8.00 S.D. 4.00</td>
<td>7.00 S.D. 4.97</td>
</tr>
<tr>
<td>Non-gamblers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>F</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Mean</td>
<td>7.66 S.D. 2.05</td>
<td>5.33 S.D. 3.40</td>
</tr>
</tbody>
</table>

Scores on the adjective list (Campbell, 1990) were transposed from their original form to ‘yes’/‘no’ responses when uncertainty had originally been expressed. As such not all data reported in Table 4 and Table 5 are to be taken as absolute responses. Rather, a ‘yes’ response can also represents a perceived presence of an adjective being self-relevant now and/or in the future, and a ‘no’ response for the future also represents an intention for the adjective to be self-irrelevant (all ‘no’ responses for the present remain absolute, as uncertainty was scored as a perceived presence, at least to some extent, of the adjective being self-relevant).

Of interest was the number of changes participants made between their self-concept responses and their possible selves responses. The gambler’s group as seen in Table 4 ranged from 1 to 13 changes ($M = 7.00$), whereas the non-gambler’s group (Table 5)
Table 4.

Gambler’s responses to adjective word list for self-concept and possible selves.

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Participant A</th>
<th>Participant B</th>
<th>Participant C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Now</td>
<td>Future</td>
<td>Now</td>
</tr>
<tr>
<td>Intelligent</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Articulate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Warm</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Considerate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Talkative</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Confident</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Assertive</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Socially</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Competent</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Likeable</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cold</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Obnoxious</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Defensive</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Shy</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Boring</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Awkward</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rude</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Arrogant</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Embarrassed</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Nervous</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Changes        13           7           1
Mean  7.00  S.D. 4.24

were consistent with one another, with each indicating only three changes. A representative comment of the non-gambler’s group came from participant E who said of herself in the future “I’d be very similar to what I am now, maybe more outspoken and more confident”. The results for participant C show only one change, yet this is reflective of the possible self being viewed as being consistent with the present self in a negative fashion. Regarding the notion of feeling better in the future for example, she stated that “it seems fairly unrealistic at the moment”.

Consistent across all participants was their caution towards the notion of being very confident of not gambling problematically in the future. Respectively participants A, C, D and E remarked that “you can pretend you’re over it but it comes up again…you could mean well for five years and have a muck up…you could get too over confident, and it hits you when you don’t expect it”, “you can go along thinking everything’s okay and bang, everything will just disintegrate”, “given the right circumstances, it could all happen again…I’m not sure how it happened, that makes me unsure that it can’t happen again”, and “I see it as a problem that’s just not going to go away”. Participant F doesn’t think that gambling will become a difficulty for her in the future, “unless I have another
tragedy perhaps”, and participant B was more concerned with the notion of her having “self control” rather than control over gambling behaviours per se.

Table 5.

*Non-gambler’s responses to adjective word list for self-concept and possible selves.*

<table>
<thead>
<tr>
<th>Descriptor</th>
<th>Participant D</th>
<th>Participant E</th>
<th>Participant F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Now</td>
<td>Future</td>
<td>Now</td>
</tr>
<tr>
<td>Intelligent</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Articulate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Warm</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Considerate</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Talkative</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Confident</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Assertive</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Friendly</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Socially</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>competent</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Likeable</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Cold</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Obnoxious</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Defensive</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Shy</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Boring</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Awkward</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Rude</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Arrogant</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Embarrassed</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Nervous</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Changes</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Mean</td>
<td>3.00</td>
<td>S.D. 0.00</td>
<td></td>
</tr>
</tbody>
</table>

**Similar self-concepts and self concept clarity across participants**

Generally the participants described their current selves as being nice, caring, compassionate and helpful people, who question their level of social acceptance. They often self-report a great sense of loss, depression and low self esteem, and regarding their gambling behaviours they describe themselves as irresponsible and shut off/switched off. Although their self descriptions vary in their detail, the variance appears to be due to individual factors, and no discernable patterns across participants appeared to be present besides the afore mentioned similarities.

Gauging the self-concept clarity from the adjective list and from the open ended questions, they appear consistent. All participants provided more negative self descriptions than positive, and although there was individual variation in the number of
adjectives responded to without using the words ‘yes’ or ‘no’, the mean across groups was near identical ($M = 8.00$ for gambler’s and $M = 7.66$ for non-gambler’s).

The five adjective items of intelligent, articulate, warm, considerate and friendly were answered uniformly for self-concept, and the three items likeable, obnoxious and nervous were answered similarly by five of the six participants. There was one item which did separate the groups however, being confident, which was answered affirmatively by all members of the non-gambler’s group, and negatively by all members of the gambler’s group.

**Past self as possible self**

When participants described possible selves which were consistent with past selves, they had greater possible selves clarity when compared to participants who were aiming to create a ‘new’ self in the future. Also, these participants expressed greater clarity for their possible selves than they achieved for their present self-concept (see Table 3).

Participant D who overtly stated that she is “aiming to get back to the sort of person I’ve been for the majority of my life” had a clear view of her possible selves, and participant E is largely becoming the hardworking mother and wife which she has been in the past. Although participant B’s past self was described in less concrete terms, she nevertheless expressed an aim to recapture characteristics of her past self through statements such as her not being “as selfless as I used to be” and wanting to “have childlike qualities”, and in the future “I’d be able to study and work again”.

Participants A and F are not aiming to re-claim past selves in the future. Participant A is attempting to have a very different life to what she has had in the past, and she is yet to build a concrete view of her possible selves. This is reflected in her having greater uncertainty for her possible selves than she does for her present self-concept, yet she perceives that the possible selves will be very different to her present self-concept (refer to Tables 3 and 4 respectively). Participant F is looking to consolidate recent changes in her life, and she seemingly perceives that not many further changes are required in order to become her possible self. Her possible selves are not characterised by a past self, and her level clarity of self-concept and possible selves is consistent across the two constructs (see Table 3).

The exception to this theme is found with participant C, who has a different perspective. This participant is certain that her past self of being in the workforce and not depressed will not return in the future, and she is confident that her recent past self of being isolated, depressed and gambling will continue. This certainty is reflected in her consistency of clarity across her self concept and her possible selves (see Table 3), and her deeming on the adjective list that her no longer being warm in the future will be the only difference to her present self concept.

**Possible self development – when the ‘how’ has been identified**

The participants who were placed into the non-gambler’s group are in part characterised by the practical steps they have identified to assist their possible selves being realised.
Participants D and E who are wanting to further their education for example, know what course they would like to study and at which institution. Participant F has identified that self-talk will assist her in her goal of not talking to new people as a means of not establishing new friendships for example, and she plans her days to be out of the house by 11:30am to avoid visitors.

The participants placed in the gambler’s group however have yet to develop such practical steps. Participant A is wanting to “put things back into the community” yet isn’t sure how she would go about doing this, and she would like to go to University, yet at this point she hasn’t been able to decide what course she would like to study. Unfortunately in the absence of a clear plan, her goal of doing “anything to strengthen me” may in reality be at the end of a trial and error process. Participant C would like to have “easy access to things other than gambling venues” and would like to “have more ability perhaps to get some volunteer work that interests me”, yet unfortunately she isn’t sure what other activities and volunteer work she could do which she would find rewarding. Other than her clear view that continuing psychotherapy, and perhaps CBT, as practical steps, participant B had difficulty identifying others.

Strategies to become possible selves with intrinsic meaning

All participants expressed goals of their possible selves having enhanced intrinsic meaning in their lives. These future goals include feeling needed by adult children, feeling independent, being self-accepting, and putting something back into the community. What varied however between participants was again the notion of having a practical plan, and also whether the goal was primarily motivated by intrinsic worth alone, or if not gambling was a fundamental consideration in the development of the goal.

Participant D wants to contribute to the community, and she is able to return to the aged hospital were she used to volunteer. Participant E is re-focussing on her immediate family, which is still intact, and participant F wants to be confident and brave, and she has identified who she needs to contact to learn more about her diabetes, and is using self-talk as well as education to aid her in accepting that she will not again be diabetes-free. These participants appear to be operating from the perspective of increasing the intrinsic meaning they have within themselves, and although they consider such strivings to be of benefit to their continuance of not gambling, it is not their primary motivation in pursuing these goals.

Participant A wants to build up friendships, invite people over and have lunch with a friend, however such strategies appear to be fundamentally geared towards “do something instead of gamble” and are seemingly based on her observation that “I’m more inclined to gamble when I’m alone”. It appears that she is hoping that her other goals such as building up her self esteem will occur a side-effect as it were of not gambling. Likewise participant B articulates an advantage of ceasing to gamble is so that “if I have one less addiction I can focus on other areas like smoking, have more time and energy to deal with more important issues like my health”. Although not considering it realistic, participant C said that she would like “to be occupied in a meaningful way”. In short, participants who weren’t gambling were more able to base goals in essence upon ends
states of intrinsic meaning rather than an end state of being able to control one’s gambling behaviours.

**Discussion**

A common feature of the self descriptions given by the participants was that they considered themselves depressed and with low self-esteem. Largely their descriptions and contained adjectives were not elaborated on in any real detail, and the words used didn’t vary greatly between participants (for example, words such as ‘caring’ and ‘compassionate’ were common place). This observation is consistent with Campbell’s (1990) proposition that individuals with low self esteem have difficulty articulating who and what they are. The participants uniformly gave more negative descriptions about themselves then positive, which is consistent with Gara et al.’s (1993) finding that depressed subjects give fewer positives regarding themselves, especially when taking into account the participant’s self description of being depressed.

Given that all participants shared several factors such as; being female, actively engaged in problem gambling counselling, had demonstrated problem gambling behaviours within the past twelve months, all meet the DSM-IV-TR (American Psychiatric Association, 2000) criteria for pathological gambling, and all were electronic gaming machine users, it ought not seem surprising that their self-concepts and clarity thereof were similar. It may be the case that the participant’s self-concepts aren’t inextricably tied to gambling factors, and that they may be similar to the general population due to other factors (for example due to being an adult low self-esteem female living alone and socially isolated). However, these similarities provide a departure point from which variations between the participants emerged.

The notion of Markus and Nurius (1986) that past selves can be possible selves was certainly identifiable in this research. Four participants identified with characteristics of who they used to be, and these four participants all had a high degree of possible selves clarity. Although predominately they were wanting to re-capture positive components of their past self-concept, this theme also held for a participant who was anticipating a negative past self as being her possible self.

In as much as the process of manufacturing possible selves entails developing plans or strategies to obtain particular outcomes (Cinnirella, 1998), past selves are familiar, they have been ‘lived in’ in that one has experience of being able to navigate the world as that self, and as that self has been obtained before, one’s evaluation of the likelihood of again achieving that self may well be quite accurate. In this manner the experienced self-efficacy for past selves may be high, and as that past self is known, one possessing a high level of clarity of that self would seem likely.

Although it is not clear here, perhaps the past selves which are comprised in the possible selves are more intrinsically valued to the individual than the present self-concept is, and this is what is impacting upon the possible selves having greater clarity than the current self-concept. Also considering that Shepard (1979) has shown empirically that self-description and self-acceptance are not as distinct concepts as their definitions imply (she obtained a convergent validity coefficient of .55), it may be that the variation in these
four participant’s self-concept and possible selves clarity is accounted for by the past possible self being more accepted than the present self, which after all, has had/is having gambling difficulties.

The remaining two participants were endeavouring to become possible selves which were quite different from their past selves, and they expressed a similar lack of clarity in both their self-concept and their possible selves. Their plans and strategies need to be made anew, rather than repeated or adjusted as with the participants who had past selves as possible selves.

How specific one’s plans were varied markedly between the gamblers and the non-gamblers. This was despite having a past self as a possible self, as ‘plans’ were discussed in terms of making positive changes, and participant C wasn’t able to articulate plans of this nature. Participant B’s possible selves constituted of composites of various past selves and subsequently although having plans for components, she didn’t have a coherent overall plan to integrate them.

Regarding the importance of developing plans pertaining to the ‘how’ to change, construal level theory has an interesting perspective. In essence this theory proposes that temporal distance changes the manner in which people respond to future events through changing the cognitive representations of those events. For example, a distant event may be represented as ‘moving house’, yet when the same event is near, it may be represented by ‘packing boxes’.

Sagristano and Trope state that according to the theory the same information about the same event “is more likely to be construed in terms of superordinate features rather than subordinate features when the event is expected in the distant future than in the near future” (2002, p.364). These researchers have demonstrated this effect with individuals being more likely to place bets for low-probability but high-pay off when the game is to be conducted in the future rather than in the present.

From this perspective, it can be seen that vague goals such as ‘make my life better’ without having strategies associated to the goal, may not be likely to be realised as there are no subordinate cognitive structures which indicate needed action. As such, a vague future goal may remain just that, a future goal which will remain in the distance.

The benefits of having identified plans of how to move towards their possible selves can be seen when considering that the “more vivid and elaborate the possible selves that can be created in preparation for a performance, the better the performance, because many of the routines for the performance are already engaged through the processes of anticipation and simulation” (Cross & Markus, 1994 p.424). Although participant F does not have a past self as a possible self, nor did she have clarity of her possible selves, she was however very specific in her plan. It is acknowledged that this occurrence appears to be at odds with the argument present thus far, yet her detailed plan may be accounted for in terms of being motivated by the perceived intrinsic meaning she would derive from becoming her possible selves.
It is proposed that the non-gamblers were able to develop clear and specific plans to become their possible selves because in the absence of needing to make further plans to cease gambling (as their previously established and emplaced plans are at least presently being effective in preventing gambling behaviours), they were able to focus on plans which would lead to goals based on intrinsic meaning.

Participant F, whilst not having great clarity of her possible selves, was able to directly set goals based her desire to be “brave” in the future, and she developed a clear plan to achieve this. Although not having great clarity of how else to describe this possible self in other terms, she has planned to become “brave” and “independent”. Participant A whilst having a goal to “build up my self-esteem” however, saw not gambling as her primary goal. Participant D wants to again feel “pride” in the future and she has a plan to serve others (via volunteering) in order to achieve this. And participant B wants to be “more self accepting” in the future yet isn’t sure how this could be achieved besides continuing therapy and suspecting that she would be better able to accept herself if she wasn’t gambling.

It is further proposed that not gambling is intrinsically a subordinate goal, and thus does not hold the same level of meaning as other goals, and therefore is without the motivational might of other goals, which results in less detailed plans being developed for its’ attainment. Markus and Nurius (1986, p.963) write that “positive possible selves can be exceedingly liberating because they foster hope that the present self is not immutable”. In a sense knowing what one ‘does’ want to be in the future is more intrinsically meaningful and motivating than knowing what one ‘does not’ want to be (for example, I ‘do’ want to be proud versus I ‘do not’ want to gamble). Having possible selves which ‘do not’ gamble need something to ‘do’. Possible selves to exist can not ‘not be’, they need to ‘be’, they need to consist of something. Therefore what that something ‘is’ is more meaningful and central to the individual’s possible selves.

In considering these proposals, one needs however to be mindful of the limitations in this research. It is not able to establish any causality nor correlation due to its design, and as such it may be that at the height of their gambling difficulties for example, the ‘non-gambler’s’ had exactly the same self-concepts and possible selves to which they now report. Although it was considered a benefit for the interviews to be highly fluid, the resulting variation of the orders in which topics were discussed could be a confounding variable, one which has not been controlled for in any way, and the data derived from the adjective list is at best a guide and an indication.

Regarding the characterises of the research participants, it is worth noting a recent study comparing males and females seeking treatment at problem gambling counselling services in the state of Victoria. Crisp et al (2004) found that presenting females are older than the males, are more likely to use electronic gaming machines, and are more often Australian born. Whilst these factors are consistent with the participants in this research, they also found that nearly half of the woman are married, have dependent children, and that over three quarters of them are living with family.

Of the six participants in this study, these three latter factors were not characteristic of their situation. Four of the participants live alone, and only one participant was married,
and she was the only one with dependent children. As such, it can not be claimed that the sample in this study is sufficiently representative of even female electronic gaming machine users who are involved problem gambling counselling in the state of Victoria. The research being limited to electronic gaming machines rather than being inclusive of other gambling forms isn’t necessarily a weakness in the context that there has been an identified “need to study different types of gambling separately” (Toneatto & Millar, 2004 p.517).

It has been argued that participants having a past self as a possible self coincides with having greater possible selves clarity, and having goals based on intrinsic meaning rather than based on a desire to ‘not gamble’ coincides with having detailed plans of ‘how’ to move towards becoming possible selves. Although perhaps preferable, no comment can be made as to whether both conditions need to be met to arrive at one’s possible selves, as the needed longitudinal research has not yet been conducted.

It would also be useful for researchers to investigate the validity of superordinate and subordinate goals in possible selves, and test the proposal that they directly impact upon one’s motivation and subsequent ability to identify plans and practical strategies. As the results here indicate that having clarity of possible selves assists in this process, means in which the attainment of clarity can be facilitated, for example in problem gambling counselling, warrants definite attention also given that “possible self-complexity mediates affective reactions to evaluative feedback about future goals” (Niedenthal, Setterlund & Wherry, 1992 p.5).

The construct of possible selves could potentially be very useful in terms of treatment, as has been suggested by Jenkins (2000). It would offer something new from the perspective that Psychoanalysis is focussed on an individual’s past, and CBT and Family Therapy are focussed on the present. Cognitive therapy of possible selves would be future focused, and although Solution Focussed Therapy is largely future orientated, it hasn’t the theoretical backing of cognitive therapy.

If it is found that the development and elaboration of possible selves can be facilitated, then problem gamblers in counselling could be assisted towards striving to identify, plan for, and meet intrinsically meaningful goals. As it has been suggested that these goals may be more attainable once gambling behaviours cease, this may be most useful as a treatment modality during the relapse prevention phase of problem gambling counselling. Rather than relying on cognitive strategies to prevent the re-occurrence of gambling behaviours, the individual can be assisted to a place where such behaviours will no longer be needed, and will not be envisaged to be self-relevant in the future.

To this end it is interesting to reflect that the participants who were still gambling all responded to the (self-concept) adjective list item of ‘confident’ by saying that it is not descriptive of them, yet those who have ceased gambling said that it is descriptive of them. It may be of course that ceasing to gamble increases one’s self-efficacy to reach other goals.

However, if further research were to indicate that focussing on attaining goals based on intrinsic meaning does occur whilst problem gamblers come to control their behaviours,
it would be worthy of investigating the impact of this in terms of a comparison with problem gamblers who focus primarily on curbing the behaviour itself. Thinking again of Pervin’s definition of self-concept as being the “perceptions and meaning associated with the self” (1993, p.191), perhaps it would be wise to focus more so on one’s sense of meaning of oneself. Possible selves is an avenue which gives access to, and form of working with, meaning in a cognitive form.

At best, if one can control their gambling behaviours effectively and efficiently via focusing on, and striving to meet, the superordinate goals of possible selves, the construct of possible selves may potentially offer a cognitive therapy modality which has a different focus to the prevailing cognitive therapy model of targeting erroneous thoughts and beliefs regarding gambling.

References


TICKET-IN TICKET-OUT AND PROBLEM GAMBLING

John Carr-Gregg

Australasian Gaming Machine Manufacturers Association

Introduction

In Hamlet, Act III, Scene II, the Queen, when asked by Hamlet how she liked a play that is being performed utters the immortal words “The lady dost protest too much, methinks” implying that the “protest” just witnessed is self-serving and insincere.

One of the difficulties faced by the gaming industry is that when the industry develops new technology and asserts that it may be beneficial in terms of addressing problem gambling, it is understandable that a number of comments may be made along the lines of ‘protesting too much’.

“You expect to make money out of this technology”, it is said, “you also expect it to be very popular: how can you possibly suggest it can help problem gamblers? Surely it will only increase the popularity of gambling and cause greater problems?”

Problem gambling is a complex area and the gaming machine manufacturing industry is not qualified to suggest how it should be addressed in terms of treating problem gamblers.

However, the gaming machine manufacturing industry sees some potential in assisting problem gamblers and potential problem gamblers through this technology and accordingly – at this forum - wishes to raise this potential for public discussion and, possibly, authoritative research on the issues raised.

What is Ticket In Ticket Out?

Ticket-In Ticket-Out has been accurately described by the NSW Independent Pricing and Regulatory Tribunal (“IPART”) as follows:

Ticket In Ticket Out (TITO) is a technological facility that can be installed on gaming machines to allow players to use tickets rather than cash in gaming machines. The tickets are bar-coded and can be inserted into machines as a form of credit or redeemed at cashier facilities. Under Part 7 of the Gaming Machines Regulation 2002, a number of clubs currently operate the ‘ticket out’ part of this technology only, which avoids the need for venue staff to assist players to cash-out on the gaming floor.

The technology has proved very popular in the United States where players and casinos have embraced it because of the flexibility that it offers to players who can move easily from one machine to another.

Tickets can be acquired at redemption terminals, obtained from cashiers or simply produced by machines after currency is inserted to commence a gaming session.

What did IPART have to say about Ticket In Ticket Out?

Ticket-In Ticket-Out was referred to IPART by the NSW Liquor Administration Board for evaluation in relation to its responsible gambling aspects. AGMMA argued in this regard that because Ticket-In Ticket-Out permitted players to redeem the full amount on the credit meter without having to wait for an attendant, it permitted greater “impulse control” and also permitted the provision of important responsible gaming information to players on tickets.

IPART responded as follows:

**Comment**

Anecdotal, some stakeholders have argued that the current ‘ticket out’ facility could be beneficial for players, by allowing them to take their ticket and have this cashed immediately rather than wait for venue staff to intervene on the gaming floor. A long wait for venue staff may prompt players to continue gambling. However, it could also be argued that the full TITO facility would reduce the circuit breakers inherent in gaming machine operations with manual insertion and retrieval of notes and coins. Nonetheless, the Tribunal is unaware of any specific evidence to support these arguments.

The Tribunal notes that key industry players have argued that all existing and proposed measures should be evaluated on a strong evidence base. They have further argued for the repeal of measures where there is little or no evidence of effectiveness. At the same time, however, the Tribunal notes that certain submitters recommended the introduction of TITO as a harm minimisation measure, but also that there is a lack of evidence regarding the effectiveness of the facility in reducing problem gambling.

Given the absence of evidence of effectiveness, or broad stakeholder support for TITO, the Tribunal considers that this technical facility should not be introduced as a gambling protection measure at this time. Accordingly, the Tribunal considers that the issue of whether to introduce the TITO facility is more broadly a policy issue outside the scope of this review.

**Recommendation**

- *Ticket In Ticket Out* technology should not be introduced for gambling protection purposes at this time.

AGMMA had, incidentally, never argued that Ticket in Ticket Out should be introduced “for gambling protection purposes”. The only reason that Ticket In Ticket Out had been referred to IPART was because the NSW Liquor Administration Board had referred it to IPART.

**Why has the NSW Government not Permitted Ticket In Ticket Out?**

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8 IPART in fact appeared to be somewhat puzzled by the belated reference to it of Ticket In Ticket Out which did not fit easily within the statutory terms of reference for the IPART Report.
It is convenient to consider the NSW Government’s rationale for not permitting Ticket In Ticket Out before examining the potential benefits. The Government has expressed the view that Ticket In Ticket Out will have negative implications for problem gamblers because it will result in fewer staff on the gaming floor and therefore in less potential for intervention. The Government also believes that the introduction of Ticket In Ticket Out will shorten the lapse of time for a cash out so gamblers will have a shorter period to consider whether to gamble.

**Is the Government’s view correct?**

The first observation AGMMA would make is that it is extremely optimistic to think that gaming floor staff would or can intervene to assist a problem gambler. The reason for this is that gaming floor staff are simply not qualified to detect, assess, identify and/or assist problem gamblers and it is unreasonable and unrealistic to expect staff to do much more than answer inquiries for direction to a problem gambling counsellor or information booklets. Indeed, if staff are asked to ‘intervene’, it is very likely that different staff will be intervening on each occasion and it is even more likely that the messages conveyed by those staff will – apart from being entirely unqualified – be inconsistent. Consider a player asking different staff members what ‘return to player’ or ‘hit rate’ means. If inquiries are limited to requests for information booklets or references to counselling facilities, it is suggested that the fact that a member of the gaming floor staff is at an identifiable counter or office rather than moving around the gaming floor may even make it easier for the inquiry to be made.

The second observation that AGMMA would make is that AGMMA believes that it is arguable that shortening the lapse of time for a cash out is more likely to permit problem gamblers to exercise their limited reserves of willpower than the alternative, namely waiting at a machine for an attendant to arrive and effect a ‘cancel credit’. The reasons for this view are set out below.

It should be noted for the record that the main benefit of Ticket In Ticket Out in terms of problem gambling as perceived by AGMMA is the ‘Ticket Out’ aspect of the technology i.e. players can take tickets from machines and promptly leave the premises without having to wait for an attendant or having to enter into any sort of confronting dialogue with an attendant to obtain their cash from the machine and leave. It is true that this ‘Ticket Out’ part of the technology is already approved in NSW. However, the commercial position is that very few venues have adopted the ‘Ticket Out’ technology alone. It is very clear that until the full ‘Ticket In Ticket Out’ technology is approved, the technology will not be widely adopted in NSW.

The principal purpose of this paper is to pose the question ‘are there other reasons for thinking that ‘Ticket In Ticket Out’ will assist problem gamblers?**

**Willpower**

There have been relatively few studies of willpower in the context of problem gambling. However, some excellent work has recently been carried on the subject by the
Department of Economics at the University of Michigan and it is suggested that this work may have significant implications in the problem gambling field.

On May 31, 2005, Emre Ozdenoren, Stephen Salant and Dan Silverman published a paper entitled *Willpower and the Optimal Control of Visceral Urges*\(^9\) which puts forward, in the context of consumer economics, a “willpower depletion model” which postulates that a person who exerts self-discipline in one activity will behave as if he has less self-discipline to exert in other activities.

The model developed by the University of Michigan study investigates how will power constraints affect the “canonical problem” of how to divide a cake or, they say, a paycheck or work load.

Although the University of Michigan studies do not relate to problem gambling, it is suggested that this model may also have implications in terms of the way in which a problem gambler ‘divides the cake’ in terms of the money he or she spends on a gaming machine.

Ozdenoren, Salant and Silverman found that “*a consumer behaving optimally subject to willpower constraints acts in ways that others describe as anomalous. The consumer reveals a preference for increasing paths of consumption, a preference for commitment and time-inconsistency in preferences*”\(^10\).

Ozdenoren, Salant and Silverman studied the optimal allocation of willpower between intertemporal saving activity and other activities that require self-discipline and examine how the ability to build willpower by its exercise further influences the optimal path of consumption.

It is suggested that this analysis may be very important in development of our understanding of problem gambling.

**Baumeister’s Willpower Depletion Model**

Ozdenoren, Salant and Silverman refer to a “willpower depletion model” developed by George Lowenstein, Roy F. Baumeister and Daniel Read\(^11\) which postulates that if a person exercises self-discipline in one activity, he or she behaves as if he or she has less self-discipline available to exert in other activities. One of the examples cited is that “profligate spending or drinking to excess” is often “the reward for a hard week at work”.

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\(^9\) Available from the UCLA Department of Economics site on the internet: http://ideas.repec.org/p/cla/levrem/784828000000000034.html


Baumeister and his colleagues have demonstrated such linkages experimentally by asking subjects to perform a task that depletes willpower and then measuring their endurance in an entirely unrelated activity:

“For example, in the first phase subjects have been asked, while reporting every thought that occurs to them, to suppress thoughts of white bears. This nearly impossible task of thought-suppression...erodes a subject's willpower; when asked in the second phase to solve insoluble anagrams or geometric puzzles or to squeeze the handgrip on a muscle exercise, these subjects give up long before their counterparts in the control group.”

Different experiments confirmed the same result: “our findings very consistently supported the willpower theory – that is, performing a first act of self-regulation weakened people’s ability to regulate themselves subsequently. This pattern was found repeatedly with many different manipulations and measures of self-regulation.”

Ozdenoren, Salant and Silverman point out that willpower depletion has been shown to have effects on impulsive buying. This may be very relevant in relation to problem gambling:

“In one experiment (Vohs and Faber, 2004), members of the treatment group were given the standard task of suppressing thoughts of white bears, paid $10, dismissed and then offered the immediate opportunity to purchase items from the campus bookstore displayed on a table in the lab. A control group which was given $10 and the same opportunity did not have to tax themselves with thought suppression. Subjects in the treatment group chose to buy more items and to spend more total dollars than their counterparts in the control group.”

Are problem gamblers constrained by the limitations of current technology more likely to spend more? This seems to be an entirely different (though possibly related) concept to having the freedom to leave the machine by just taking a ticket and leaving the premises.

The key question is whether being unable to leave a machine and obtain a payout is a “willpower constraint”. If it is (and it would, intuitively, seem to be likely), the work carried out by Emre Ozdenoren, Stephen Salant and Dan Silverman on “how willpower constraints would affect the canonical problem of how to divide a cake (or paycheck or workload) over a fixed time horizon to maximise utility” could be relevant. According to

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the authors’ formulation of the cake eating model, “the greater restraint the consumer exercises, the faster his willpower erodes”\textsuperscript{15}. They also note that Baumeister’s view that “further persistence demands ever greater exertions of willpower”\textsuperscript{16} and assume that “a given level of consumption depletes willpower at a faster rate when a person’s reserves of willpower are lower.”\textsuperscript{17}

They observe that\textsuperscript{18}:

“A consumer behaving optimally subject to binding willpower constraints will act in ways that others have characterised as “anomalous”. For example, even with positive discounting, the agent may prefer a path of consumption which increases over time.”

An interesting comparison is drawn with savings clubs which hold a person’s money for a fee and dole it back to him gradually over time. This model, the authors say is generally regarded as inconsistent with the standard consumption model. But, they say:

“…our consumer would strictly prefer to have his “cake” or paycheck doled out to him by a “savings club” rather than to have the entire amount available to him in his wallet where he would need to use up scarce will power to resist spending it. Indeed, he would be willing to pay a fee for this service.”

Is it not possible to draw a parallel between a gaming machine which does not issue tickets and makes “the entire amount” available to the player so that he has to use up scarce will power to resist spending it and a gaming machines that issues tickets and therefore can be said to ‘dole out’ cash for gaming expenditure purposes as the player moves from machine to machine?

The authors also investigate “the intuitive idea” that the exercise of self-control in the present, while depleting willpower, may also build willpower reserves in the future:

“Experimental psychologists have...found that while exerting self-control depletes willpower over the short-term, regular exercise of self-control may eventually build willpower. In one experiment (Muraven et al, 1999\textsuperscript{19}), subjects who participated in two


\textsuperscript{17} Willpower and the Optimal Control of Visceral Urges”, 31 May, 2005, by Emre Ozdenoren, Stephen Salant and Dan Silverman; available from the UCLA Department of Economics site on the internet: http://ideas.repec.org/p/cla/levrem/784828000000000034.html - page 2.


week self-control drills (regulating moods, improving posture etc) later showed significant increases in the length of time they would squeeze a handgrip relative to those who did not participate in the drills.”

Is it not possible that regular exercise of self-control would occur when players stop playing by causing a ticket to be printed out and move onto the next machine? Is it possible that this activity may build willpower reserves in the manner suggested?

There have been no studies conducted to test these hypotheses but the writer believes that the concepts suggested merit further study.

The authors refer to further studies concerning self-regulation when the good consumed is addictive:

“The agent in these models is assumed to have perfect self-control in a cool state but none in a hot state. By changing current consumption, the agent may alter the probability that he enters the hot state, thereby exerting future self-control.”

Again, is it not possible that by using the Ticket In Ticket Out feature to switch from one machine to another, problem gamblers may be “exerting future self-control” which may in turn build will-power reserves?

There have been no studies conducted to test these hypotheses but, again, the writer believes that the concepts suggested merit further study.

Does a given level of restraint deplete willpower more rapidly when willpower reserves are low?

Emre Ozdenoren, Stephen Salant and Dan Silverman posed this question and proposed but not carried out the experiments necessary to test the issue:

“In the first phase, subjects would be asked to perform a quantifiable will power depleting activity (A) such as attempting to solve an insolvable puzzle. In the second phase, the subjects would be asked to perform another quantifiable will power depleting activity (B). The treatment group would perform activity A before B and the control group would perform activity B before A. All subjects would be informed ahead of time about the nature of the two activities and the order in which they would be performed. If the level of willpower reserves does not affect the rate of depletion, (fw = 0) the two groups should, on average, last as long on a given activity regardless of whether it precedes or follows the other activity. On the other hand, if depletion is anticipated to be


more rapid when reserves are low, the subjects should restrain themselves more with a given activity when it occurs first.”

This experimental work has not yet been carried out but the design of the experiment suggests that comparable work could be carried out with gaming machines equipped with Ticket In Ticket Out and not so equipped to determine whether willpower reserves are depleted more rapidly when machines are not so equipped.

Conclusion

Emre Ozdenoren, Stephen Salant and Dan Silverman concluded that:

“...we assumed that if a consumer has wealth to spend on current consumption and yet he does not spend it all, then exercising self-restraint requires an act of will that depletes his finite stock of willpower. This willpower constraint captures the common notion that an individual has limited though positive capacity to regulate his own visceral or unthinking behaviours. Willpower in our model may be interpreted as a cognitive resource which must be depleted to exercise self restraint.”

It is suggested that a Ticket In Ticket Out equipped EGM may assist problem gamblers to exercise limited willpower which they are currently required to exercise by calling over an attendant to effect a ‘cancel credit’ rather than quietly and efficiently ‘cashing out’ through a ticket. It is suggested that this concept requires independent study.

Of particular interest is the concept that consumers may “make impulsive purchases after willpower reserves are depleted”: if this is so, it is important to focus on how to preserve and build willpower resources of problem gamblers.

Messaging Potential

Another important aspect of Ticket In Ticket Out is the enhanced ability to communicate with players through redemption terminals. At present, communicating key gambling information to players is limited to static signs and, in Victoria, through Player Information Displays that appear on EGM screens when the information button is selected.

Loto-Quebec has developed some excellent short video messages that communicate key gambling information to players in a relaxed informative style.

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These are available on a Canadian Government website. The messaging is short, informative and to the point. The presentation is crisp, interesting and non-confrontational. It is suggested that these messages – with a similar presentation – or something very like it - should appear on redemption terminals as they provide vital information to all players, not just problem gamblers. The website address is http://www.msss.gouv.qc.ca/documentation/videos/jeu/index.php?ext=wmv&num=01 or http://www.msss.gouv.qc.ca/documentation/videos/jeu.html.

In conclusion, it is AGMMA’s view that Ticket IN Ticket Out, far from being adverse to the interests of problem gamblers and potential problem gamblers, is more likely to be helpful to them. It is conceded that this has not been proved empirically but this will hopefully be the next step in the process.
WOMEN’S NARRATIVES OF INCARCERTION AS RELATED TO PROBLEM GAMBLING AND THEIR RECOVERY

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ABSTRACT

Gambler’s Help Western (GHW) provides counselling services at the Dame Phyllis Frost Centre (DPFC) to female prisoners incarcerated for problem gambling-related crimes. The service is available to women on remand and to those who have been sentenced. This paper presents the stories of incarcerated women, including how they became involved in illegal activities in order to finance their gambling and their experiences dealing with the incarceration and recovery. Case studies will be utilised to explore the underlying issues of problem gambling for women incarcerated at the DPFC, including domestic violence, sexual assault, grief, and racial discrimination.

Introduction

The provision of problem gambling counselling services to incarcerated women facing problem gambling-related issues in Victoria has its origins in the research undertaken by Brown, Johnson, Jackson and Wynn (1999). The study provided information on the involvement of women in illegal activities to fund poker machine gambling within the Western Metropolitan area of Melbourne. In 2000 female prisoners from DPFC contacted GHW requesting counselling. As a result, an outreach problem gambling counselling service was developed in collaboration with the DPFC.

GHW has provided a program of individual assessment and counselling at the DPFC since 2001 to women who are in remand or are serving a prison sentence. Between the period of 2001 and 2005 twenty women who were incarcerated because of gambling-related crime have accessed the GHW services.

GHW provides eight hours of counselling on a weekly basis at the DPFC. Two bilingual counsellors provide counselling in English, Vietnamese and Spanish.25 DPFC also facilitates the use of interpreters where necessary.

Referral to the program is by way of general referral used within the prison. DPFC staff are encouraged to refer prisoners to GHW who meet their target group. Prisoners also choose to self-refer by approaching the Gambler’s Help counsellor.

25 This paper does not include data of the service provided in the Vietnamese language, from which approximately 25 women have benefited.
The initial session includes an assessment of the gambling behaviour and information about relevant services. The client and counsellor then agree by verbal contract to an estimated number of sessions, and initial goals for counselling that are reviewed in subsequent sessions.

This paper seeks to provide:

- A profile of the twenty women who have accessed the services of GHW at the DPFC over a period of five years (2001-2005);
- Recommendations for clinical practice in the prison setting;
- Three cases studies; and
- Recommendations for a broader sector and structural change

Consent was obtained from all clients to collect the aggregate data that is presented. The women presented in the case studies consented to their stories being used for this paper in the hope that this would raise awareness of the legal impact of problem gambling related-crime and the process of recovery. To ensure confidentiality and anonymity the case details were modified.

This paper uses the terms incarcerated female client, female prisoner, client and women interchangeably to refer to women incarcerated for gambling related crime.

**Profile of women incarcerated for gambling related crime**

Twenty women incarcerated for gambling-related crime have accessed GHW services. The profile of these women is based on demographic data collected between the periods of 2001 to 2005.

**Ethnicity**

Most of the women are of Australian nationality from diverse ethnic backgrounds: 40% are Anglo-Celtic, 55% Culturally and Linguistically Diverse (CALD), and 5% Indigenous.

**Occupation and employment**

Eighty five percent of the women were in full-time employment. Some 55% were professionals who had held a position of financial trust. Refer to Table 1 for a breakdown of occupations.
Table 1  
Occupations of Female Gambling Clients Incarcerated at DPFC.

<table>
<thead>
<tr>
<th>Occupation</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>Accounting and finance</td>
<td>50</td>
</tr>
<tr>
<td>Administrative</td>
<td>5</td>
</tr>
<tr>
<td>Home duties</td>
<td>20</td>
</tr>
<tr>
<td>Sales</td>
<td>10</td>
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<tr>
<td>Law</td>
<td>5</td>
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<tr>
<td>Student</td>
<td>5</td>
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<tr>
<td>Trade</td>
<td>5</td>
</tr>
</tbody>
</table>

Crime and length of incarceration

Studies, mainly based on male subjects, have indicated that fraud is a major element of criminal behaviour motivated by gambling (Lahn, 2005; Goldstraw, Smith and Sakuri, 2005). During counselling, 65% of the women at the DPFC disclosed that they were charged for fraudulently misappropriating sums ranging between A$60,000 to A$3 million from their workplace for use in gambling and/or to pay gambling debts. This may indicate that there is no major gender difference with respect to fraud and problem gambling.

Fifteen percent of the women disclosed that they were charged with drug trafficking, which they described as a means to fund their gambling. Other women stated that they supported their gambling by shoplifting (15%), and the remainder by armed robbery (5%).

Of the women referred to GHW for assessment and counselling, 85% made it known that they did not have a previous criminal history. Only 15% stated that they had breached the law prior to the onset of problem gambling. This is in agreement with the study of Rosenthal and Lorenz (1992) who found that a high percentage of criminal offenders with a gambling problem did not have a previous criminal history.

With respect to incarceration length, 70% stated that they had spent more than one year in prison (see Table 2).

Table 2  
Length of Incarceration reported by Female Gambling Clients

<table>
<thead>
<tr>
<th>Length of Incarceration</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a year</td>
<td>25</td>
</tr>
<tr>
<td>More than 1 year</td>
<td>35</td>
</tr>
<tr>
<td>More than 2 years</td>
<td>10</td>
</tr>
<tr>
<td>Between 3 and 5 years</td>
<td>30</td>
</tr>
</tbody>
</table>

Problem gambling

The majority of women stated that their gambling problem had developed with poker machines (65%) and casino games (30%). TAB-related problems were very low, at 5%.
Underlying issues associated with problem gambling onset

During counselling, female prisoners at the DPFC identified a number of underlying issues associated with the onset of their gambling. See Table 3.

Table 3
Reported Underlying Issues Associated with Onset of Problem Gambling

<table>
<thead>
<tr>
<th>Issue</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic Violence</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Grief and loss (health and death)</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Migration and refugee issues</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Workplace issues (Including racism and bullying)</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Mental health</td>
<td>7</td>
<td>35</td>
</tr>
</tbody>
</table>

Note. Some clients reported more than one issue

Concerns expressed by female prisoners during imprisonment

In the course of counselling most female prisoners have sought support to discuss the impact and implications of incarceration. Table 4 below highlights some of the most frequent issues that arise for women as a result of incarceration that become the focus of counselling:

Table 4
Concerns Expressed by Female Gambling Clients During Imprisonment

<table>
<thead>
<tr>
<th>Concern</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custody and care of children</td>
<td>7</td>
<td>35</td>
</tr>
<tr>
<td>Separation and divorce</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>Loss of family support</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>Financial difficulties and losses</td>
<td>13</td>
<td>65</td>
</tr>
</tbody>
</table>

Note. Some clients reported more than one concern

The female prisoners who appeared most distressed were those experiencing separation from their young children.

Some of the women also shared their feelings of isolation as a result of family members having disconnected from them due to the stigma associated with incarceration.

Where female prisoners had experienced domestic violence, they expressed that they now felt safe from their abusive partners and/or family members. One commented that ‘it was only until I crossed the floor into jail that I realised I used gambling to escape from the abuse from my partner and other family members. I was shocked to be in jail and at the same time relieved to be away from them’.
Recommendations on clinical practice in the prison setting

- Psychological Assessment

It is important to be familiar with the prison environment in order to avoid making stereotypes and thus pathologising the normal female adaptive behaviour to prison life.

Prisoners frequently disclose the shock and feeling of powerlessness associated with the different stages of incarceration and the isolation from family. In order to support these women to survive incarceration it is important to assess their acquired resilience skills and coping mechanisms. For example, help them to connect with their inner resources and skills such as, assertiveness and conflict management and how they can apply them to prison life.

The assessment of the impact of traumatic events in the life of the client is relevant to the formation of problem gambling. Greco-Gregory (2002) found that the female “pathological gambler presented more trauma-related symptoms when not playing video poker and more dissociative and closely related experiences while playing” (p. 3801). This study also suggests that female problem gamblers with a history of trauma are generally dissatisfied with their relationships, present with intimacy difficulties and may use gambling as an aid to coping with relationships.

A full psychological assessment, when providing problem-gambling counselling, may be a lengthy evolving process due to:

- the length of time it can take for a prisoner to develop trust;
- the fact that female prisoners may be distracted from the underlying issues and symptoms of their gambling by the court process and by the process of adjusting to incarceration. Once they have adjusted to prison life it may then be possible for the underlying issues, symptoms and triggers to be available for assessment and to commence some insight based work.

- Counselling and support

GHW counselling is influenced by Family Therapy, Single Session Therapy, motivational interviewing, and other humanistic approaches.

Prejudices

When counselling incarcerated clients it is constructive, for the therapeutic relationship, to focus on the person rather than on the person as a criminal. The humanistic approach of Moffat (1974) advocated for a psychiatric model with democratic and egalitarian principles with respect to the client-therapist relationship. He proposed that in every therapeutic interaction it is not only the ill, who are cured but also the professional who is cured of their prejudices.
Readiness for Change

Clients frequently engage in dialogue about the readiness for change in the areas of problem gambling, crime, and coming to terms with large debts and financial loses. Common themes such as dealing with reality, freedom and responsibility often appear when they begin taking responsibility for their actions.

The counsellor usually finds that women discuss their willingness to engage in a process of reparation of trust with family members.

Hope and the future

The author has found that the themes of hope and future are confronting for female prisoners to discuss in the process of counselling. In terms of the future, it is important to explore processes of empowerment, including how to overcome the double stigma of being a prisoner and a problem gambler.

Underlying Issues

Rosenthal and Lorenz (1992); Taylor, Johnson and Webster (1977) suggested that women gamble to escape emotionally and experience numbness. During counselling, female prisoners at the DPFC are encouraged to explore the reasons for their gambling. It appeared that some of them were escaping from feelings of impotence, powerlessness, isolation, and shame associated with underlying issues such as racism and domestic violence.

Clients stated that the exploration of the underlying issues and associated feelings helped them to better understand themselves and their actions.

Professional Supervision for the counsellor

Listening to an incarcerated person’s story of pain, shame, remorse and powerlessness can often be an emotionally demanding process for the counsellor. Emphatic supervision is vital to prevent vicarious traumatisation and allows the counsellor to continue providing a skilled service.

Case Studies

- Narratives: Maria, Lina and Anita

Three women gave permission to use their stories in order to voice some of their experiences, concerns and recovery. When I asked one of them what she would like to say to other people about her experience of problem gambling she wrote a letter and at the end wrote, “Please, if you want to gamble do it with your family in mind, so if you think of your family, it will help to deter you from going to hell”.

MARIA

Background

Maria is a married woman in her thirties, from an Asian-Australian background. She was an accountant and had no previous criminal history.
Underlying circumstances
Maria felt that she had become a target of racism in the workplace. She did not confide in her husband about the problems at work because she did not want to worry him as he was working interstate.

Symptoms related to problem gambling
During the course of counselling, Maria stated, “I felt humiliated by racist remarks made by my manager. My initial reaction was to pretend I did not understand English. After work, I went to the venue to have dinner, and to play the pokies. The excitement of gambling in the pokies helped me to forget and feel some comfort. The venue was a place to hide from work, from my own feelings, they (venue staff) treated me well”.

Maria said that she acquired gambling debts and felt out of control. When asked to talk about the emergence of the illegal activities, she explained, “One day I crossed the line and took money from work and told myself that the machine would pay it back”.

Crime and sentence
Maria is alleged to have defrauded more than $2 million from the workplace. She received a sentence of four years imprisonment.

Recovery
When exploring the initiation of her process of recovery from gambling and crime, Maria said, “It was a relief when I was caught even though I lost my job and my freedom”. I am fortunate I have the support of my husband and family”.

Maria also spoke of her sense of responsibility, “I would rather take responsibility for what I did, I don’t want to feel like a victim”.

Maria told of the struggle with her feelings associated with depression, “I prefer to think positively and not feel depressed because of the uncertainty associated to the future. I need to live one day at the time”.

When asked of what is most important for her survival, she said, “Painting and art are new skills I have found to express my feelings about who I am”. When asked about her experience of counselling, Maria told me, “it’s a space where I can trust to speak about my survival from incarceration and how to look after myself”.

Some of the issues Maria brought up were related to the neglect she had suffered during her adolescence and the psychological impact of the racism she went through.

On request Maria was also referred to financial counselling services to provide her with information on debt related to fraud.

LINA

Background
Lina is a 46 year old Australian woman. Married with three children, two of who are independent. Her 12 year old son is living with her husband. Lina was an accountant with
a degree in Business Management; she was employed in a managerial position of financial trust. Lina stated that she had no previous criminal history.

Underlying circumstances
When asked what was happening at the time of the problem gambling and crime, Lina disclosed that her husband was emotionally and physically abusive towards her. Lina also added that she was experiencing feelings of emptiness because she felt her children no longer needed her as they reached independence.

Symptoms related to problem gambling
Lina said that initially the poker machines were only a form of entertainment. However, “When things got bad with my husband, I just wanted to play to block his abuse and my feelings, I did not care if I won or lost”. Lina lost control and started chasing her losses.

With respect to crime, Lina said, “I was convinced that the money I took from work was a loan that I would pay back.”

Crime and sentence
Alleged fraud and embezzlement of $300,000 from the workplace and 18 months of incarceration.

Recovery
Lina found herself unable to pay back the money she had taken. She felt guilty and depressed and tried to kill herself. After some psychiatric intervention and with her parents’ support Lina was able to face her employer and admitted to the misappropriation of company funds.
Lina also spoke of the difficulty dealing with her feelings of guilt, shame and remorse because she had disappointed her family, children and employer. She felt useless because she could no longer support her children.

With the issue of domestic violence, Lina decided that she would leave her husband after serving her sentence because she believed she would have a better chance of getting custody of her youngest son at that time.

During counselling Lina spoke of how she became very angry and depressed when some of her relatives would not support her emotionally, “I received a letter from my in-laws about their feelings of disappointment. I’d rather they didn’t write to me. I feel that I’ve been punished enough with jail.”

The counselling also explored how the incarceration was affecting her, Lina responded, “I keep to myself.”

When talking about her future and hopes, she only said, “I just want to be free and see my children.”
ANITA

Background
Anita is a 42-year-old woman of European background. She has a degree in Finance. She is on currently on parole.

Underlying circumstances
After initiating the separation from her first husband, her parents and husband did not let her see her toddler. “I felt I didn’t have the right to be a mother”. Anita remarried years later and her husband was physically abusive and she tried to block out the abuse by gambling.

Symptoms related to problem gambling
Anita spoke of how important she felt in the gaming venues, the “staff were very nice to me and it was a place to hide from my life.” “They used to wait for me and prepared on my arrival my favorite alcoholic drinks. I felt important”.

She also spoke of how the gambling helped numb her feelings and clouded her judgment, “I needed the pokies; they were like a daily drug to alleviate my emotional pain. I lost weight and I was suicidal because of the debts. One day I took money from my workplace, I always told myself, that I would replace it. I had so much annual leave accumulated that I was thinking, I could use it to pay the money back. I am ashamed and am still hiding from people and myself.”

Shame has played a large part in the loss of Anita’s family, “I am not in touch with my family because most of them feel ashamed and the ones that would like to see me I have asked not to visit me because the rest of the family might ostracize them.”

Crime and sentence
Anita was charged with embezzlement and fraud of $3.5 million. She was sentenced to 5 years incarceration.

Recovery
While incarcerated, and on parole, Anita chose counselling as a way to survive her sentence, she said, “I was determined to be strong and survive without medication. I take one day at the time, sometimes it’s hard to think about-facing people and responsibilities and life. The support from professionals helps me to keep in touch with the world.”

Anita has expressed great fears about the stigma of having a criminal record, “Do people guess that I was in prison?” She also feels worried that she will be rejected and discriminated against, “Will people give me a job after I finish my course?”

Counselling has helped to supported her gradually reconnect with old friends. Anita’s next goal is to prepare herself to approach some of her close relatives.
Recommendations for broader sector and structural change

- A stronger government agenda for the prevention of problem gambling-related crime.
- More effective consumer protection regulations that support harm minimisation (e.g. smart cards).
- Promotion of greater responsibility within workplaces to recognise problem gambling as a health and welfare issue for employees.
- Government commitment to support female prisoners in the areas of health, housing, income, studies and training to promote sustainable change in order to facilitate prisoner integration into the community.
- More meaningful data collection and/or research into illegal activities related to problem gambling.
- Advocacy with the Justice System for sentence mitigation in problem gambling-related crimes.
- Gambler’s Help practitioner advocacy for on-going practical support, during and after release to, promote sustainable change towards recovery.
- Greater government commitment for the prevention of domestic violence, bullying in the workplace and racism towards women.

Summary

The data collected by the Gambler’s Help Western program at the Dame Phyllis Frost Centre suggests that there is a relationship between gambling and fraud. The practice of assessment and counselling to support the needs of female prisoners needs to take into account that gambling is sometimes used as a way to deal with traumatic events.

The social problem of women using illegal activities to fund gambling needs to be addressed from a broader perspective, including greater government commitment towards the safety and well being of women.

References


COGNITIVE BIASES AND NUMERICAL REASONING ABILITY IN PROBLEM AND NON-PROBLEM GAMBLERS

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ABSTRACT

Numerous studies have shown that problem gamblers are particularly prone to various cognitive biases which may explain why they continue to gamble despite having occurred substantial losses. A common explanation advanced to account for this finding is that problem gamblers may have poorer numerical or statistical knowledge than other people. Addressing these deficits is therefore seen as one possible way in which to assist problem gamblers or prevent the development of problematic behaviour within the broader community. The aim of this study was test this assumption by assessing the numerical reasoning skills, objective gambling knowledge and tendency towards biased reasoning in a sample of 90 regular poker-machine gamblers (problem and non-problem) and a non-gambling comparison group ($n = 45$). Analyses based on both group comparisons and regression analyses controlling for differences in educational attainment showed that problem gamblers scored significant higher on the cognitive biases measure than other gamblers. However, this difference could not be attributed to poorer knowledge of gambling odds or limited numerical ability amongst problem gamblers.

Introduction

In almost all major westernised countries, it is well documented that between 1-2% of the adult population experience significant problems with gambling (Productivity Commission, 1999). Problem or pathological gambling is thought to be a progressive disorder characterised by an increasing commitment of time and money to gambling that can lead to harmful consequences to the gambler, those around them, and the broader community (Dickerson, McMillen, Hallebone, Volberg, & Woolley, 1997; Lesieur & Blume, 1987; Neal, Delfabbro, & O’Neil, 2005; National Council on Problem Gambling, 2004). Since the 1970s, a variety of explanations have been advanced to understand pathological gambling, ranging from applications of the established principles of operant and classical conditioning to addiction models adapted from the DSM-IV classification for psychiatric disorders (American Psychiatric Association, 1994), or neurophysiological models relating to dysfunctional patterns of physiological and cortical activation associated with gambling reinforcers (Blaszczynski & Nower, 2002; Griffiths & Delfabbro, 2001; Petry, 2005). However, perhaps one of the most influential in terms of its impact on recent public policy, educational programs and clinical interventions for
pathological gamblers, has been the increasing body of research relating to the application of cognitive theory to the study of gambling behaviour.

The principal tenet of the cognitive approach is that problem gambling results from various forms of erroneous information processing. Since almost all forms of gambling are designed to have a negative return to players, long periods of play virtually assure monetary loss and accordingly, prolonged play should be aversive and rare (Dowling, Smith, & Thomas, 2005; Walker, 1992). Accordingly, it follows that any gamblers who persist despite heavy losses must be irrational or playing against their better judgement. Dysfunctional gambling of this type is thought to arise because problem gamblers frequently fall victim to a variety of well-documented decision-making errors, heuristics or biases (Corney & Cummings, 1985; Delfabbro, 2004; Ladouceur, 2004; Presson & Benassi, 1996; Wagenaar, 1988), all of which either encourage gamblers to continue playing, or make them overly confident about the potential profitability of gambling. A very comprehensive list of all these biases is provided by Wagenaar (1988), but perhaps the most important of these, and the ones most strongly supported by empirical research into gambling, are the representation bias (Tversky & Kahneman, 1971), availability (Tversky & Kahneman, 1973), biased attributions (Gilovich, 1983; Gilovich & Douglas, 1986), beliefs about the role of luck (Griffiths, 1994, 1995), the illusion of control (Langer, 1975; Thompson, Thomas & Armstrong, 1998), and just world beliefs (Lerner & Simmons, 1966).

The representation bias refers to the belief that short-term sequences of evidence should reflect long-run probabilities, and often leads to the well-known gamblers’ fallacy in which one event (e.g., reds in roulette, tails in coin-tosses, or wins in general) is seen as more probable if it has not occurred for some time. Availability refers to a tendency to base judgments (e.g., the profitability of gambling) on salient cues such as large wins rather than objective assessments of all wins and losses. Beliefs in personal luck can also contribute to the view that one’s personal odds of winning are better than the objective odds, or that outcomes are influenced by particular conjunctions of events or circumstances such as the right person or atmosphere being present at the gambling venue. An illusion of control can also have much the same result as beliefs about luck, but refers more specifically to over-estimations of the personal capacity to influence outcomes, so that people have a subjective probability of winning that is greater than the objective odds. As Thompson et al. (1998) show, this perception typically arises in situations where people have a strong intention to achieve outcomes and where people are likely to perceive a link between their actions and outcomes such as when people are personally involved, or have to make choices, when participating in chance-based activities. Biased attributions work in tandem with the illusion of control in the sense that gamblers will tend to attribute failures to external factors such as bad luck and successes to their personal skill, thereby maintaining their perception of control despite clear

26 It is important to point out that the desire for monetary gain is not the only motivation for gambling (see Chantal, Vallerand, & Vallieres, 1995). However, this assumption is central to cognitive theories of gambling, and it can be argued other motivations such as gambling for enjoyment or excitement are not independent of monetary motives. As Walker (1992) point out, there is evidence that laboratory investigations that fail to include any genuine chance to win money do not evoke the same level of physiological arousal as those with only token rewards (e.g., Anderson & Brown, 1984; Diskin, Hodgins, & Skitch, 2003).
evidence to the contrary. Finally, although perhaps more influential as a motivational factor rather than in the perception of outcomes, a strong belief in a just world or that people deserve to be rewarded, can lead gamblers to be convinced that outcomes should eventually turn out in their favour, or that effort should eventually rewarded. Such a belief can lead to odd beliefs or behaviours, including a belief that croupiers or gaming machines are “unfair” or personally against the gambler, or a tendency to personalise the task by talking or shouting at gaming machines as if they were genuine competitors or rivals (Delfabbro & Winefield, 2000; Griffiths, 1994).

Such heuristics or mental shortcuts are commonly used in everyday life to facilitate more efficient information processing and, in the case of biased attributions and illusions of control can be psychologically beneficial (Alloy & Clements, 1992). However, when applied in a gambling context, any or all of these heuristics can lead to over-confidence or over-estimations of success and may lead to excessive gambling. Evidence in support of this view emerged from a number of studies employing a speaking aloud methodology, in which subjects were required to verbalize all uncensored thoughts and rationalizations aloud while gambling (Coulombe, Ladouceur, Desharnais & Jobin, 1992; Gilovich & Douglas, 1986). Studies using this method have consistently demonstrated that over 70% of verbalizations recorded during gambling sessions are irrational and that many of the biases described above were clearly being used (Gaboury & Ladouceur, 1988; Ladouceur, Gaboury, Dumont & Rochette, 1988). Similar findings have also been obtained in recent studies using psychometric instruments (e.g., Joukhador, Maccallum & Blaszczynski, 2004; Toneatto, Blitz-Miller, Calderwood, Dragonetti & Tsanos, 1997; Jefferson & Nicki, 2003; Raylu & Oei, 2004), which have also confirmed a positive relationship between scores on standardised measures of problem gambling and people’s susceptibility to cognitive biases related to gambling.

As a result of these findings, it has been argued that a potentially effective way in which to treat problem gambling might be to address these biased cognitions by asking problem gamblers to elucidate their thoughts, or by providing them with objective information concerning the true nature of the odds, probabilities, and other relevant mathematical concepts (e.g., Ferland, Ladouceur, & Vitaro, 2002; Ladouceur & Sylvain, 1999; Ladouceur, Sylvain, Boutin, Lachance, Doucet, & Leblond, 2003). Based on this logic, education programs have also been developed in schools (e.g., Shaffer, Walsh, Howard, Hall, Wellington, & Vander Bilt, 1995; Williams, Connolly, Wood, Currie, & Meghan-Davis, 2004) to provide young people with objective information about gambling in the hope that it will protect them against irrational beliefs and therefore make them more informed about the true nature of gambling. Central to all of these programs is the belief that irrational thinking arises from deficits in mathematical reasoning, or a lack of knowledge about gambling odds, and that problem gambling could be reduced through appropriate education strategies that draws people’s attention to the design of gambling activities and their inevitable unprofitability.

Despite the intuitive appeal of these suggestions and some promising results to suggest that the provision of information to problem gambling may be therapeutically useful (e.g., Ferland et al., 2002), the empirical evidence available to support the fundamental “information deficit” assumption of these approaches remains very sparse. In fact, in
studies that have been conducted so far to test for the relationship between knowledge and people’s susceptibility to cognitive biases, the results have been generally negative. Benhssain and Ladouceur (2004), for example, conducted a comparative study involving humanities and statistics students gambling on a simulated roulette task. The results showed no significant difference in the prevalence of irrational cognitions. Another study by Smith (2003) also using university students found only a very small relationship ($r < .20$) between problem gambling scores and student scores on a test of numerical reasoning and questions relating to their understanding of probabilities. Similarly, in a survey study of over 900 adolescents, Delfabbro, Lahn, and Grabosky (in press) found that young problem gamblers were actually more accurate in their responses to questions about objective probabilities (e.g., the odds of getting outcomes in coin-tossing), despite having a tendency to over-estimate the amount of skill involved in purely chance-based activities, and other questions relating to specific types of gambling. Taken together, these results suggested that differences in numerical reasoning or objective knowledge may not be the primary source of differences in the prevalence the differences in cognitive reasoning observed between problem gamblers and other gamblers.

The present study

Although the studies of gambling knowledge conducted so far involving student samples are not without value, such studies may be limited in that the prevalence of problem gambling may be so low as to make it difficult to draw clear comparisons between the responses of problem gamblers and others in the community. Accordingly, the principal aim of the current study was to extend these previous studies by conducting comparisons of biased cognitions, numerical reasoning, and knowledge of gambling odds with clearly defined samples of adult gamblers with varying levels of gambling involvement, and which included a substantial sample of genuine problem gamblers. Using these measures, it was possible to investigate two principal issues. The first, based on the research described above (e.g., Raylu & Oei, 2004), was whether problem gamblers would score higher than other gamblers on measures of irrational reasoning. The second, based on the recent preliminary research by Benhssain and Ladouceur (2004) and Delfabbro et al. (in press) was whether problem gamblers would not have any deficits in knowledge compared with other gamblers, as is commonly assumed by many problem gambling education programs.

Method

Participants

The study involved 135 participants (males = 68, females = 67) ranging in age from 19 to 64, with a mean age of 39.08 ($SD = 13.16$). To be involved in the study, an individual had to be over 18 years old (the legal age for gambling in South Australia) and have had some experience with playing poker machines. Poker machine gambling$^{27}$ was chosen as the

Poker machines or electronic gaming machines are the Australian equivalent of fruit machines in the United Kingdom and slot-machines in North America. Australian machines usually involve 5 spinning reels. Players win money based on whether specified combinations of symbols line up in a row on a particular betting line (e.g., the middle row, upper, lower or other patterns). Players can play up to 20 games per minute with a maximum bet of $10 (equivalent to approximately 2 pounds or $US7.5).
basis for selection because it is the most popular continuous and high intensity form of
gambling available in Australia (between 35-40% of the population gambles at least once
per year, Productivity Commission, 1999). Approximately seventy percent of all problem
gamblers report that poker machines are the primary cause of their difficulties. Poker
machines have also been the major focus of investigation in previous studies of irrational
cognitions (Delfabbro & Winefield, 2000; Joukhdor et al., 2004; Jefferson & Nicki,
2003; Ladouceur, Gaboury, Bujold, Lachance, & Tremblay, 1991). Three groups of
gamblers were recruited. A problem gambler sample ($n = 44$) was recruited using
newspaper advertisements and through access to new clients at local problem gambling
counselling agencies. All participants had to score 5 or more on the South Oaks
Gambling Screen (SOGS) and gamble on poker machines at least once per week. The
second group, also sampled from the community, comprised regular gamblers ($n = 46$)
matched for age, gender, playing frequency and education level. A third sample
comprised 45 infrequent gamblers ($n = 45$) recruited from the general community. All
respondents in the infrequent sample had a SOGS score of less than 5, gambled on poker
machines less than once a fortnight, and were significantly younger, $F(2, 132) = 9.30, p <
.001$ and contained significantly more tertiary educated individuals, $\chi^2(2, N = 135) =
24.76, p < .001$, than the other two samples (Table 1). The principal purpose of the third
sample was to test the validity of the numerical reasoning measure (scores should be
higher in a tertiary educated sample), and to provide a wider range of scores on the
measure of educational attainment for the purpose of the multivariate analyses described
below.

Table 1

<table>
<thead>
<tr>
<th>Group</th>
<th>$M$ (SD)</th>
<th>$n$ (%)</th>
<th>$n$ (%)</th>
<th>$n$ (%) Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>Male</td>
<td>Female</td>
<td>Educated</td>
</tr>
<tr>
<td>Problem gamblers ($n = 44$)</td>
<td>43.48 (11.48)</td>
<td>22 (50.00)</td>
<td>22 (50.00)</td>
<td>3 (6.82)</td>
</tr>
<tr>
<td>Regular gamblers ($n = 46$)</td>
<td>41.11 (12.77)</td>
<td>23 (50.00)</td>
<td>23 (50.00)</td>
<td>5 (10.87)</td>
</tr>
<tr>
<td>Infrequent gamblers ($n = 45$)</td>
<td>32.71 (12.90)</td>
<td>23 (51.11)</td>
<td>22 (48.89)</td>
<td>21 (46.67)</td>
</tr>
</tbody>
</table>

Measures

The survey was divided into five components: (a) demographics and gambling habits; (b)
understanding of gambling odds; (c) a cognitive biases scale; (d) the SOGS; and (e) a
standardized numerical reasoning test.

Demographics and gambling habits

The first section addressed demographic details including age, gender and educational
status. Subjects were also asked to indicate how often they played poker machines, how
many years of experience they had playing poker machines and how long was typically
spent gambling on each occasion. A significant difference was also observed for years of
gambling experience, \( F(2, 132) = 3.84, p < .05 \). A Fisher LSD post hoc test indicated that problem gamblers (\( M = 8.41, SD = 6.07 \)) and regular gamblers (\( M = 7.90, SD = 5.83 \)) had more previous gambling experience than infrequent gamblers (\( M = 5.04, SD = 6.68 \), \( p < .05 \)). Reported average session length was also significantly higher for problem gamblers (\( M = 132.73, SD = 81.99 \)) than for regular gamblers (\( M = 81.52, SD = 59.44 \)) and infrequent gamblers (\( M = 15.62, SD = 17.90 \), \( F(2, 132) = 43.85, p < .001 \).

**Understanding of odds**

Five questions were included to assess participants’ understanding of the odds of common gambling activities which would be familiar even to those with little *in vivo* playing experience. The first question asked participants which set of odds was closest to those associated with winning X-Lotto. This was specified as having six correct numbers. Five options were provided ranging from 1 in 100,000 to 1 in 10 million, with the closest answer being 1 in 8 million. The second question provided information regarding Roulette and asked subjects the odds of red spinning up on two consecutive rounds. The options included 4/16, 9/18, 1/37, 1/18 and 2/18, with the closest answer being 4/16. The third question asked the chances of getting two heads when two fair coins were tossed. The options ranged from 10% to 50%, however, the correct response was 25%. The next question informed subjects that a typical poker machine returned 87% to the player and asked how much money they would expect to lose on average if they played $20 through the machine. Five options were provided with the correct response being $2.60. The final question asked the chances of drawing an ace from a deck of 52 cards. The options included 1 in 52, 2 in 52, 4 in 52, 2 in 26 or none of the above, with the correct response being 4 in 52. The content of these questions were very consistent with those typically included in quizzes for high school students exposed with gambling knowledge education programs (Crites, 2003).

**Cognitive biases scale**

Although other scales have been developed to measure cognitive biases (e.g., Jefferson & Nicki, 2003; Joukhador et al., 2004; Raylu & Oei, 2004), all of these are based on general irrational beliefs (e.g., interpretative bias, superstitious beliefs or an inability to stop gambling) rather than being directed towards the measurement of specific cognitive biases making findings difficult to interpret. A set of items was purposively developed to measure six of the principal biases identified in previous gambling research. These included the availability heuristic (6 items), e.g., “It is always good to play a venue where lots of people are winning”; representativeness (6 items), e.g., “It is always bad to play a poker machine that has recently paid out”; biased attributions (6 items), e.g., “If I come home empty handed after playing poker machines, I was probably just having a bad day”; belief in luck (7 items), e.g., “I have always believed that some poker machine venues are luckier for me than others”; just world views (6 items), e.g., “A person who has been playing poker machines for a long time deserves to be rewarded”; and the illusion of control (9 items), e.g., “There are certain ways of playing poker machines that give you a better chance of winning money”. Items in each subscale were rated on an 11-point Likert scale ranging from 0 = *Strongly disagree* to 10 = *Strongly agree*. The Cronbach’s alpha for the 40-item cognitive bias scale was .88. For subscales, alpha values ranged from .65 to .85 with .65 (representativeness) being the only marginal value below .70.
South Oaks Gambling Screen (SOGS) (Lesieur & Blume, 1987)

The SOGS was used to distinguish between pathological and non-pathological gamblers. The test featured 20 items with an overall score of 5 or more used to classify an individual as a pathological gambler. Pathological gambling was operationalised in accordance with the seven diagnostic criteria outlined in the DSM-III; lying about wins and losses, job disruption, family disruption, failure to repay debts, borrowing from others to salvage gambling losses, borrowing from illegal sources, and financing gambling by illegal means. More recently, significant agreement was identified between the SOGS and DSM-IV estimates of problem gambling severity (Strong, Lesieur, Breen, Stinchfield & Lejuez, 2004). In the present study the Cronbach alpha coefficient was .92, indicating a high level of internal consistency.

Numerical reasoning ability

A standardized numerical reasoning test (Psyctech International Ltd., 1991) was used to assess participants’ ability to understand numbers and the relationship between numbers. This test has been subjected to considerable international and national validation involving many thousands of participants and has been found to have very good psychometric properties. Furthermore, only a basic level of education was required to successfully complete the test, making it suitable for the general community and a measure of numerical ability rather than educational achievement. The test featured 25 questions, each with six possible answers and 10 minutes were provided to complete the test. In the present study, the Cronbach alpha coefficient was .88.

Procedure

Infrequent and regular non-problem gamblers who expressed interest in the study were mailed an information sheet and invited to the University of Adelaide laboratory for testing. Upon giving informed consent, subjects were asked to complete the survey that pertained to demographic information, understanding of odds and the cognitive biases scale. Following this, the SOGS was administered followed by the timed numerical reasoning test. Subjects were debriefed and received $20 payment for their time and travel costs.

Results

Statistical Note

An alpha level of .05 was used for all statistical tests. For large effect sizes with .05 significance it was determined that a sample size of 135 would yield 99% power. A first series of analyses was undertaken using analysis of variance (ANOVA). In these analyses, the principal interest lay in the differences between the two groups matched for gambling frequency and education level (the problem gamblers and the regular gamblers) because these groups only differed in terms of their SOGS scores. A second multivariate analysis was then undertaken to examine the relationship between numerical reasoning
and knowledge scores and cognitive bias scores after controlling for any group differences in educational level and age, and problem gambling scores.

**Individual Differences in Ability**

Table 2 summarises the numerical reasoning scores for the three groups along with their score out of five on the knowledge of gambling odds questions. One-way ANOVA revealed that there was no significant difference between the groups for their knowledge of gambling odds, but a significant difference was detected for numerical reasoning ability. As might be expected, the more highly educated infrequent group scored higher than the other two groups (Fisher LSD, \( p < .001 \)), but no significant difference was observed between problem gamblers and regular gamblers.

<table>
<thead>
<tr>
<th></th>
<th>Problem gamblers</th>
<th>Regular gamblers</th>
<th>Infrequent gamblers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 44 )</td>
<td>( n = 46 )</td>
<td>( n = 45 )</td>
</tr>
<tr>
<td>Knowledge of gambling odds</td>
<td>1.57 (1.50)</td>
<td>1.61 (1.48)</td>
<td>2.13 (1.50)</td>
</tr>
<tr>
<td>Numerical reasoning ability</td>
<td>13.52 (0.72)</td>
<td>12.30 (0.90)</td>
<td>16.82 (0.91)</td>
</tr>
</tbody>
</table>

**Group Differences in Irrationality**

Group differences in scores on the cognitive biases scale were assessed to test the hypothesis that problem gamblers would show greater irrationality than regular and infrequent gamblers. The mean item scores for the six biases are summarized in Table 3. These scores were calculated by dividing the total score for each subscale by the number of items in that subscale. This ensured that the mean scores were expressed in the same measurement units as the original items. Each item was rated on an 11-point Likert scale, where 10 represented the highest level of irrationality. As indicated, the problem gamblers consistently scored higher than the regular gamblers, who in turn consistently scored higher than the infrequent gamblers. Based on Cohen’s (1988) classification of eta-squared values of .07 as moderate and .14 values as large, it is clear that all differences except for representativeness were very large. The strongest differences were observed for just world beliefs, beliefs in luck and illusion of control, although the illusion of control scores were generally towards the lower end of the scale for all three groups.
Table 3
Mean (SD) scores for the six cognitive biases

<table>
<thead>
<tr>
<th></th>
<th>Problem gamblers</th>
<th>Regular gamblers</th>
<th>Infrequent gamblers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( M ) (SD)</td>
<td>( M ) (SD)</td>
<td>( M(SD) )</td>
</tr>
<tr>
<td>Availability</td>
<td>5.42 (2.10)</td>
<td>4.43 (1.76)</td>
<td>2.91 (1.85)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representativeness</td>
<td>5.72 (1.68)</td>
<td>5.07 (1.85)</td>
<td>3.76 (1.88)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biased attributions</td>
<td>5.58 (1.71)</td>
<td>5.06 (1.37)</td>
<td>4.30 (1.40)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief in luck</td>
<td>5.07 (2.22)</td>
<td>4.15 (1.90)</td>
<td>2.80 (1.69)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just world beliefs</td>
<td>5.86 (2.30)</td>
<td>3.84 (1.78)</td>
<td>2.08 (1.79)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illusion of control</td>
<td>3.90 (2.07)</td>
<td>2.21 (1.46)</td>
<td>1.40 (1.14)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** All F-values significant at \( p < .001 \), and post hoc tests significant at .05 level. Mean scores for each subscale given by the total score divided by the number of items in that subscale.

Pearson correlation analysis was also used to examine the relationship between scores on the SOGS and irrationality scores for each bias (Table 4). Scores on the SOGS significantly correlated with all but one of the subscales, with the magnitude of the correlations found to be generally consistent with other recent studies (Jefferson et al., 2004; Joukhador et al., 2004; Raylu & Oei, 2004; Jefferson et al., 2004). A positive relationship was evident where irrationality increased as the level of problem gambling increased, demonstrating further support for the view that problem gambling is associated with greater irrationality. Table 4 also shows that there were generally positive intercorrelations between the biases, suggesting that people who scored high on one bias were also likely to score high on other biases.
### Table 4
Pearson correlations of SOGS scores and six cognitive biases in the three contexts

<table>
<thead>
<tr>
<th>Bias</th>
<th>SOGS</th>
<th>AVAIL</th>
<th>REP</th>
<th>ATTNS</th>
<th>LUCK</th>
<th>JWB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability</td>
<td>.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representativeness</td>
<td>.34**</td>
<td>.50**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biased attributions</td>
<td>.18</td>
<td>.40**</td>
<td>.37**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belief in luck</td>
<td>.34**</td>
<td>.54**</td>
<td>.46**</td>
<td>.36**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Just world beliefs</td>
<td>.58**</td>
<td>.43**</td>
<td>.50*</td>
<td>.42**</td>
<td>.55**</td>
<td></td>
</tr>
<tr>
<td>Illusion of control</td>
<td>.46**</td>
<td>.55**</td>
<td>.43**</td>
<td>.46**</td>
<td>.58**</td>
<td>.63**</td>
</tr>
</tbody>
</table>

*Note.* AVAIL = Availability; REP = Representativeness; FLEX = Flexible attributions; BLUCK = Belief in luck; JWB = Just world beliefs.

* *p < .05. **p < .01.

### Multiple regression analysis: Problem Gambling, Understanding of Odds and Numerical Reasoning Ability in Producing Irrationality

The previous analyses indicated that problem gamblers were more prone to cognitive biases than regular and infrequent gamblers, and that the three groups were similar in terms of their knowledge of the objective odds, but also that the problem gamblers had poorer numerical reasoning ability than the more highly educated infrequent gamblers. To gain a clearer understanding of the relationship between problem gambling, mathematical ability, knowledge of odds and irrationality, a hierarchical multiple regression analysis was conducted using the entire sample, while controlling for the effects of tertiary/university education. Irrationality (total scores on the cognitive biases scale) was used as the dependent measure, tertiary education added at Step 1, SOGS scores and years of gambling experience at Step 2, and numerical reasoning ability and knowledge of odds at Step 3. Residual analysis indicated no evidence of outliers, non-normality, nonlinearity or homoscedasticity. The final model was highly significant, $F(5, 129) = 11.62, p < .001$, and accounted for 31% of the variance in irrationality. As indicated in Table 5, the adjusted $R^2$ change value for the final step was .03, indicating that numerical reasoning and understanding of odds explained only a very small proportion of variance in irrationality scores and that by far the strongest predictor of irrationality was a person’s SOGS score. In other words, the differences observed in Table 3 were unlikely to have been significantly influenced by differences in the level of educational attainment. Problem gambling appears to be the primary predictor of irrational cognition scores.
Table 5

Summary of hierarchical regression analysis for variables predicting total irrationality scores on the cognitive biases scale

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>Adj R²</th>
<th>Δ Adj R²</th>
<th>Beta</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.61</td>
<td>.09</td>
<td>.09</td>
<td>-.15</td>
<td>1.89</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOGS score</td>
<td>3.31</td>
<td>.46</td>
<td></td>
<td>5.83***</td>
<td></td>
</tr>
<tr>
<td>Gambling experience (yrs)</td>
<td>.006</td>
<td>.28</td>
<td>.19</td>
<td>.02</td>
<td>&lt; 1</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odds total score</td>
<td>.11</td>
<td>.10</td>
<td></td>
<td>1.23</td>
<td></td>
</tr>
<tr>
<td>Numerical reasoning score</td>
<td>-.04</td>
<td>.31</td>
<td>.03</td>
<td>-.11</td>
<td>1.73</td>
</tr>
</tbody>
</table>

*** p < .001.

Discussion

Overall, the results of this investigation were consistent with other recent studies such as those conducted by Joukhador et al. (2004), Raylu and Oei (2004) and Jefferson and Nicki (2003). Problem gamblers were found to be consistently more irrational than other gamblers on every type of cognitive bias that was measured, and this difference was evident even after statistically controlling for differences in educational attainment between different gamblers. In previous studies, it has been argued that such biases could be addressed by providing problem gamblers with greater information about the nature of gambling odds, or by introducing gambling topics into mathematical curricula. However, as the results of this study showed, there was little evidence to show that these deficits were related to poorer numeracy or knowledge of basic gambling odds. Consistent with the small number of recent studies that have investigated similar issues within student populations (Benhsain & Ladouceur, 2004; Delfabbro, Lahn, & Grabosky, in press; Smith, 2003), problem gamblers were, in fact, just as accurate in their understanding of gambling odds as regular gamblers involved in the same form of gambling and who had a similar number of years of gambling experience.

In attempting to explain this seemingly paradoxical result, Benhsain and Ladouceur (2004) have introduced a concept termed ‘cognitive switching’. According to this view, problem gamblers are thought to vacillate between two cognitive states: one that is focussed on an objective and rational assessment of the odds (what they term ‘cold information’), and another that is more primarily focused on information relevant to the activity and outcomes (termed ‘hot cognitions’). In this latter state, gamblers it is argued are more likely to eschew rational processing and become susceptible to various cognitive biases. In Benhsain and Ladoucuer’s view, one explanation for this change in mental states is that a strong personal involvement in the activity possibly leads to more analytic or left-hemisphere processing, in which there may a greater tendency to infer causal patterns or relationships that may not exist. However, these views remain largely
unsubstantiated, and remain subject to further investigation using appropriate neuro-imaging technology to confirm whether the patterns of brain activation differ according to gamblers’ level of task involvement.

In Delfabbro et al.’s (in press) view, Benhain and Ladouceur’s (2004) could also be parsimoniously explained in terms of Thompson et al.’s (1998) notion of the \textit{control heuristic}, a term which refers to particular classes of situation in which people are more prone to over-estimating the amount of control perceived over outcomes (as per Langer’s, 1975, illusion of control). Situations most likely to fall into this category include those where people have a strong personal involvement in the task, and when they have a strong desire for outcomes. Thompson et al. (1998) draw specific attention to a study by Biner, Angle, Park, Mellinger and Barber (1995), which involved a simple gambling experiment where food deprived and non-food deprived participants gambled on a task for food rewards. Those who were hungry and therefore in greater need of the outcomes were significantly more likely to over-estimate their control over the task even though both had been exposed to the same series of events.

As Delfabbro et al. (in press) note, it is highly likely that problem gamblers differ from other gamblers in much the same way. Gambling to recover previous losses is a central feature of problem gambling (O’Connor & Dickerson, 2003), so that problem gamblers are likely to have a stronger emotional and financial need to win money than other gamblers. In such states, they may be more likely to relinquish rational decision-making, and interpret information in a way that is consistent with their underlying motivation to achieve control over outcomes and to recoup their losses. In support of this view, it is noteworthy that the two cognitive biases that differed most strongly between problem gamblers and other gamblers was the illusion of control and just-world beliefs. Included in latter subscale were items that specifically referred to gamblers’ beliefs that effort should be rewarded, and that gamblers deserved to win if they had been gambling for a long time without success. At the present time, most gambling research concerning the role of emotional states and decision-making has focused largely on people’s responses to anticipated or actual outcomes (e.g., Mellers, Schwartz, & Ritov, 1999), or dysfunctional responses to patterns of reward (e.g., Overman, Frassrand, Ansel, Trawalter, Bies, & Redmond, 2004). Thus, a potentially fruitful extension of this research would be to examine emotions, not as outcomes, but as possible causal factors in influencing gambler’s decision-making and, in particular, their susceptibility to various cognitive biases such as the illusion of control.

The results from this study suggest that a basic understanding of mathematics, statistics or gambling odds is unlikely to be a protective factor in problem gambling because gamblers can pick and choose which information they chose to apply when the information is applied to activities in which they have a personal interest. However, despite this, it does not necessarily follow that providing this information is completely without value. Although such information may have a limited impact on problem gamblers once they are immersed in gambling, it may be that such information, if provided early enough, may provide people with the skills to approach gambling more rationally before they become too emotionally and financially involved. For this reason, the current interest in providing gambling information in schools, in venues and to the community in general may still be a worthwhile primary intervention, and be useful for
those who have not as yet become involved with gambling, or who gamble only infrequently. One possibility raised by Smith (2003), for example, is that the differences being observed between problem gamblers and other gamblers in terms of cognitive biases may reflect more subtle misconceptions about statistics and probabilities that are not adequately detected by the sorts of questions utilised in any research so far. Thus, further more refined analyses of gamblers’ knowledge may yield differences that enable one to identify the underlying conceptual basis for some of the apparent misconceptions relating to randomness reflected in many of the biases.

Conclusions

Although this study contained some methodological strengths, including a valid sample of problem gamblers and the capacity to control for educational differences, it is important to recognise that there are nevertheless several limitations that need to be taken into account when interpreting the findings. First, all findings in this study were based on self-report data, so that it does not necessarily follow that participants endorsed biases to the same extent or in the same way as might be so in an actual session of gambling. Second, although the measure of cognitive biases overcame some of the limitations of existing measures by providing a conceptual framework for item selection, further validation of these items particularly in international samples is important to confirm that the questions are interpreted the same way, and are relevant to gamblers in other jurisdictions where different types of gambling product may be available. Third, since the sample used in this study was recruited non-randomly from the community, there is always the danger that only the more competent and more educated problem gamblers may have participated. In other words, even though the sampling was probably appropriate for the testing the hypotheses posed in this study, it does follow that the results can be generalised to all problem gamblers in the community; in particular, those who do not have the literacy skills, time and motivation to participate in university research projects.

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THE APPLICATION OF GAMBLING RESEARCH TO POLICY DECISIONS

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ABSTRACT

When governments make key policy decisions they often do so in the absence of research that specifically addresses the decision to be made. Decisions can be informed, however, by accessing related research and making appropriate assumptions.

The purpose of this paper is to estimate a number of the personal impacts caused by gaming machines in Victoria in the context of the forthcoming review of non-casino (electronic) gaming machine licences in Victoria.

Introduction

In the early 1990’s the Victorian government made a major policy decision when it decided to legislate to allow gaming machines in clubs and hotels in Victoria. The Ministers at that time have been recently reported in the Herald Sun (2006) stating that the decision was largely driven by the tax revenue which would flow to the Government, and there should have been more analysis of the social impact of the machines before their introduction.

As a financial counsellor with the Salvation Army’s Gambler’s Help service in Melbourne I am regularly confronted by the harm caused by gaming machines to some of the people who play them regularly. Many clients are suicidal, experiencing rejection by family members or have resorted to crime to meet their debts.

The current non-casino gaming machine licences in Victoria were issued for 20 years and expire in 2012. The government has announced that a review will be undertaken that will enable it to make a decision in 2007 about the post-2012 licensing and regulatory structure. This review will provide a timely opportunity for the government to assess both the positive and negative impacts of (non-casino) gaming machines in Victoria.

Although Victoria has had gaming machines since the early 1990’s, there is little specific research that examines their impact on the lives of those who play them regularly. Given this lack of specific research, any assessment of the personal impact of gaming machines will need to be derived by modifying the results of more general research using rather bold assumptions. Although this is not ideal, policy decisions are often based on a broad general understanding of impacts. It is certainly possible to have a much better understanding of the impacts than was possible when the original decision was made to introduce the machines to Victoria in the early 1990’s.
To illustrate this approach, this paper uses readily available research to estimate three types of harm related to gaming machines in Victoria – suicide and attempted suicide, family breakdown (divorce and separation) and crime.

Methodology

The information provided by the report of the Productivity Commission (1999) provides a useful starting point in estimating the impacts of gaming machines in Victorian clubs and hotels if three broad assumptions are made:

- the harm caused to problem gamblers is similar, regardless of the preferred type of gambling (or the State of residence)
- where the report (PC 1999) gives figures relating to problem gamblers Australia-wide, a Victorian estimate can be derived by assuming that 25% of Australia’s problem gamblers live in Victoria. This figure is based on the report that indicates that Victoria’s share of Australia’s problem gamblers ranges between 22% and 29% depending on the test used.
- where the figures available relate to all problem gamblers in Victoria, an estimate relating to problem gamblers playing gaming machines in clubs and hotels needs to be derived. The report of the Gambling Research Panel (2004) indicates that playing gaming machines was the favourite type of gambling for 84% of problem gamblers in Victoria, however this figure needs to be adjusted to allow for the 2,500 machines at Crown Casino, in addition to the 27,500 machines in clubs and hotels. After allowing for the 2,500 machines at Crown Casino (which are not subject to the review), it can be estimated that 77% (say 75%) of Victoria’s problem gamblers play gaming machines in clubs and hotels.

Taken together, it can therefore be estimated that nearly 20% (ie 75% of 25%) of Australia’s problem gamblers play gaming machines at Victorian clubs and hotels.

Estimate of suicides due to gaming machines in clubs and hotels in Victoria

Estimates of suicide rates due to gambling are imprecise. The Productivity Commission (1999) estimated that there are nearly 3,000 gambling related suicide attempts in Australia annually resulting in about 50 deaths. Based on the analysis above it can be assumed that about 20% of these are due to gaming machines at Victorian clubs and hotels. Therefore there are about 600 suicide attempts resulting in 10 deaths each year related to gaming machines in Victorian clubs and hotels.

This estimate is supported by the recent report based on the National Coroners Information System database (Hoy, 2005) which indicates there were an average of 14 gambling related deaths per year in Victoria during the five years to 30 June 2005, 80% (or 11 deaths) due to gaming machines.

Although both studies suggest that there is likely to be under-reporting of the figures, taking the two studies together, it can be estimated that every year there are at least 600
suicide attempts resulting in 10 deaths related to non-casino gaming machines in Victoria.

Based on these estimates, if the government issues new licences for the existing machines for a further 20 year period from 2012 it can be estimated that this will lead to about 12,000 attempted suicides and 200 deaths.

**Estimate of divorces and separations due to gaming machines in clubs and hotels in Victoria**

The Productivity Commission (1999) estimated that there are about 3,200 gambling related divorces and marriage separations in Australia annually. Based on the previous analysis, it can be estimated that about 20% of these are related to gaming machines in Victorian clubs and hotels, and therefore there are some 600 divorces and separations annually related to gaming machines in Victorian clubs and hotels.

For a 20 year licence period there would be about 12,000 divorces and separations.

Estimating the number of divorces and separations may, of course, significantly underestimate the extent of family breakdown. In many cases the family breaks up without any formal process being completed, particularly where there are no remaining financial assets or communication between the partners has ceased.

**Estimate of crime due to gaming machines in clubs and hotels in Victoria**

The harm caused by gaming machines is not limited to gamblers and their families and friends, because gamblers often turn to crime as a way of financing their gambling. These crimes often impact on employers and the wider community, however the impact on the perpetrator of a crime is often overlooked. If committed against a family member it can lead to ongoing suspicion and relationship breakdown. If committed against an employer it can lead to dismissal and difficulty in obtaining further employment. Some of the more serious crimes result in long jail sentences and are reported in the media.

The Productivity Commission (1999) found that around 10% of problem gamblers (as measured by the South Oaks Gambling Screen 5+) have committed a crime because of their gambling. The Commission estimated that there were about 75,000 problem gamblers (SOGS 5+) in Victoria. As about 75% of Victoria’s problem gamblers play gaming machines in Victorian clubs and hotels (see above), it can be estimated that some 5,800 Victorian gaming machine players have committed some form of illegal activity at some stage of their gambling career.

The Productivity Commission (1999) does not estimate the number of gambling related crimes on an annual basis. Many crimes are not reported, particularly when family members or employers are the victims, so it is not possible to estimate annual crime rates with any certainty.
Conclusion

In many discussions about the impact of gaming machines, the focus is on the “problem gambler”, with the inference being that they are not “normal” members of the community. It is a tautology to say that a problem gambler is a person who has suffered significant harm because of their gambling. The focus of this paper has been to develop a conservative estimate of some of the harm caused to ordinary Victorians by a product being offered under licence by their government. It estimates that for another twenty year licence period there would be about 12,000 attempted suicides and 200 deaths in addition to 20,000 divorces and separations.

It would be possible to make different assumptions and derive different results. Researchers have struggled to establish direct causal links between playing gaming machines and the harm caused. In many cases there are multiple reasons for suicide or divorce and the gaming machine may only be contributing factor. In the end, greater precision is not required as the evidence is indisputable that non-casino gaming machines in Victoria cause considerable harm to many regular players.

The harm caused by gaming machines is often trivialised by referring to the small percentage of the population who are “problem gamblers”. The Productivity Commission (1999) however found that the reality is that about 20% of regular gaming machine players suffer harm (ie are “problem gamblers”).

In developing the licensing and regulatory structure to apply to the industry post-2012 the Victorian government has a duty of care to ensure that the evidence of the harm caused by the existing machines is not ignored or trivialised, even if the evidence is not as robust as we might like. The tobacco industry and the asbestos industry provide examples of the consequences that can follow when the evidence of harm caused by a product is ignored by decision makers.

Addendum

Since this paper was presented at the NAGS Conference in November 2005 the Victorian Government has released a study on the community impacts of electronic gaming machines (Office of Gaming and Racing, 2005). This study found that there was no evidence suggesting that the suicide rate was higher in Victoria suburban or regional areas compared with comparable areas of Western Australia (where there are no gaming machines). This study was completed in May 2005 before the data from the National Coroners Information System (2005) became available.

The report does not examine the impact of gaming machines on family relationships and found that current data systems are inadequate to conclusively comment on the relationship of gambling and crime.
References

Herald Sun (9 January 2006), Melbourne.
GAMBLING BELIEFS AND GAMBLING SELF-EFFICACY
- SURVEY RESULTS AND FACTOR ANALYSIS

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ABSTRACT

In April 2005, Queensland Treasury conducted a survey to measure gambling activity and gambling attitudes in the Queensland population. Part of this survey included questions adapted from the Gambling Abstinence Self-Efficacy Scale (GASS), (Hodgins et al., 2004), the Gambling Related Cognitions Scale (GRCS) (Raylu and Oei, 2004b), and the Gamblers' Beliefs Questionnaire (GBQ) (Steenbergh et al., 2002).

For the Queensland survey, questions adapted from the GASS, GRCS and GBQ were used to measure gambling control and gambling beliefs in the population. This paper reviews how these questions were adapted for a general population survey, and identifies significant differences between gambler group as measured by the Canadian Problem Gambling Index (CPGI) for the factors generated.

Introduction

In April 2005, the Communications Strategy Information - Baseline Survey was conducted by Queensland Treasury to evaluate beliefs in the Queensland population about gambling and personal control of gambling (gambling self-efficacy). The survey was run prior to the launch of the Responsible Gambling Community Awareness Campaign (launched on the 17th of April 2005), to gain a baseline measure of gambling attitudes and activity.

The survey was conducted by telephone and included the full Canadian Problem Gambling Index (CPGI) and correlates, as well as questions on gambling activity, basic demographics, gambling beliefs, gambling self-efficacy and gambling messaging recall. CPGI gambling groups are based on the scores obtained from the Canadian Problem Gambling Index. The categories used in this study are:

- Non-gambling group – no gambling reported in the last twelve months
- Recreational gambling group – CPGI score of 0
- Low risk gambling group – CPGI score of 1 or 2
- Moderate risk gambling group – CPGI score of 3 to 7
- Problem gambling group – CPGI of 8 or more.
To ensure that a reasonable number of persons from the different CPGI gambling groups were included in the sample, respondents were drawn from persons who had indicated a willingness to be contacted for further research when they had completed the *Queensland Household Gambling Survey 2003/2004*. From this pool of potential respondents, all persons who were identified as being in either the low risk, moderate risk or problem gambling groups were in-scope, as well as a random sample of recreational and non-gambling groups.

Ultimately a total of 2,258 people were interviewed of whom 341 were from the non-gambling group, 1269 from the recreational gambling group, 414 from the low risk gambling group, 184 from the moderate risk gambling group and 50 from the problem gambling group. Members of the non-gambling group and those who gambled only on scratch tickets, Lotto or Art Union tickets were not asked the full questionnaire. The remaining 1,456 respondents were asked the full questionnaire and it is their responses which provide the data for analysis in this paper.

The two sections of the survey which are examined in this paper are the questions relating to gambling beliefs and gambling self-efficacy. Nineteen questions were asked in the gambling beliefs section (see 0), and 24 questions were asked in the gambling self-efficacy section (0).

The questions in these two sections were based on questions drawn from a number of different research papers. The gambling beliefs questions were adapted from questionnaires reported in two papers:
- the Gamblers’ Beliefs Questionnaire (GBQ) (Steenbergh et al., 2002); and
- the Gambling Related Cognitions Scale (GRCS) (Raylu and Oei, 2004b) to screen for a range of gambling related cognitions.

The questions regarding gambling self-efficacy questions have been adapted from:
- the Gambling Abstinence Self-Efficacy Scale (GASS), (Hodgins et al., 2004);
- the Gambling Self-Efficacy Questionnaire (GSEQ) (May et al., 2003); and
- the Gambling Urge Scale (GUS) developed by (Raylu and Oei, 2004a).

Questions from these papers were adapted for the current survey, in some cases quite extensively. Adaptation was necessary as the studies from which the questions were drawn were intended for use in a variety of contexts and for a variety of target audiences (0). It was necessary to ensure that questions which had been developed for a self-completion or face to face interviewer were suitable for administration in a population telephone survey and were relevant to the Queensland context. Reporting scales were changed where necessary to ensure that all questions in the same section had the same response scales.

In the final questionnaire, the gambling beliefs questions were posed as a series of statements to which survey respondents answered on a five point scale, ranging from "Strongly agree" to "Strongly disagree" (see 0). Gambling self-efficacy questions were posed as a series of situations where control of gambling might be tested, and respondents were asked to respond on a different five point scale: "Never, Rarely,
Sometimes, Often, Always" (see 0). Some questions which had been designed for heavy gamblers were also reworded for people who may not gamble heavily.

Table 1. Question source and key questionnaire characteristics

<table>
<thead>
<tr>
<th>Scale</th>
<th>Study Audience</th>
<th>Method of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gamblers’ Beliefs Questionnaire (GBQ)</td>
<td>Volunteers from Community groups, undergraduate students (recruited via advertisements)</td>
<td>Paper-based self completion.</td>
</tr>
<tr>
<td>Gambling Related Cognitions Scale (GRCS).</td>
<td>Community members recruited from workplaces and mass transit waiting areas, First year psychology students</td>
<td>Paper-based self completion.</td>
</tr>
<tr>
<td>Gambling Abstinence Self-Efficacy Scale (GASS)</td>
<td>Sample of pathological gamblers who had recently quit gambling</td>
<td>Face-to-face interview.</td>
</tr>
<tr>
<td>Gambling Urge Scale (GUS)</td>
<td>First year Psychology Students Volunteers from the general community (recruited via advertisements)</td>
<td>Paper-based self completion. (mail out for community members, completed in class for students).</td>
</tr>
</tbody>
</table>

The Factor Analysis

Aside from completing detailed analysis of the survey data to assist in preparation and conduct of the communications campaign for which the survey was conducted, some further complementary analysis was done including factor analysis of the gambling beliefs and gambling self-efficacy questions. It is the results of the factor analysis which are outlined here and are the concern of the remainder of this paper.

Factor analysis is a statistical technique which aims to identify a small number of "factors", which cannot be observed directly, from a large number of observed variables. The techniques of factor analysis work on the assumption that the observed responses to questions are affected by these underlying "factors" and seeks to identify them. Factor analysis is typically used as a data reduction technique, to reduce a large number of variables which may be correlated with one another into a smaller set of variables which can be more readily interpreted than the original variables.

The gambling beliefs and gambling self-efficacy questions were well suited to factor analysis. Their suitability can be measured by calculating the Kaiser-Meyer-Olkin (KMO) statistic for the two sets of questions. The KMO statistic was calculated at 0.9469 for the Gambling Beliefs questions, and at 0.9951 for the Gambling Self-Efficacy questions, indicating that both sets of data were highly amenable to factor analysis.

There is no definitive technique for factor analysis – such aspects as the number of factors extracted and their meaning requires some knowledge of the subject matter being
analysed, and is guided by how understandable and believable the emerging factors are as well as by statistical measures. The factor analysis for this paper was conducted using the factor analysis procedure in the SAS software package.

Prior to embarking on the analysis, one complicating issue which needed addressing was that responses of "don't know" and "refused" are unsuitable for factor analysis. These responses were coded as missing and were not used in the factor analysis. To compensate for this, the factor analysis was calculated on the correlation matrix calculated from the non-missing responses. This meant that an individual respondent who had missed one or more individual questions could still be included in the analysis for other questions.

**The Factor Analysis: Combined Analysis**

The first analysis attempted on the data was an examination of both the gambling beliefs and gambling self-efficacy questions together. This analysis was conducted to test whether the two sets of questions contained any common factors, or whether they should be treated separately. This analysis was run with a Varimax rotation and produced a six factor solution when taking the default setting of Eigenvalue greater than one (Kaiser's criterion) to determine the number of factors.

Of the six factors generated by this analysis, the questions which weighted on each factor were from either the gambling beliefs or gambling self-efficacy questions – there were no factors made up of both gambling beliefs and gambling self-efficacy questions. This was taken as evidence that there were no factors common to both the gambling beliefs and the gambling self-efficacy questions. Therefore, a decision was taken to conduct further analysis of the gambling beliefs and gambling self-efficacy questions separately.

**The Factor Analysis: Gambling Beliefs**

All gambling beliefs questions were included in the initial analysis, but on examination of results two variables were removed from further analysis. Question 16 "If I keep track of previous winning bets, I can work out what will win in the future" was removed as it did not score on any one factor but rather contained a mixture of concepts that appeared separately in other factors. Question 29 "I get the most excitement from gambling" was also removed, as it referred more to emotions rather than gambling beliefs.

The factor analysis of the remaining seventeen gambling beliefs questions was run on the correlation matrix using a Varimax rotation to give orthogonal factors. Orthogonal factors were chosen for ease of interpretability, and Factor solutions of between two and six factors were examined.

Examination of the scree plot suggested that either two or four factors were most likely to produce useful results. These were the points where the plot appears to have a bend (Cattell's criterion). There are three eigenvalues over 1, which suggests three factors according to Kaiser's criterion. Examination of the rotated factor patterns showed that all the factor patterns have split loadings (questions which load on more than one factor). The five factor solution has one factor on which just one variable loads, indicating that...
too many factors are being used. The four factor solution was therefore used in what follows. The rotated factor pattern for the selected solution is given in 0.

Rotated 4 factor pattern for Gambling Beliefs Question, omitting questions 16 and 29

<table>
<thead>
<tr>
<th>Rotated Factor Pattern</th>
<th>Factor1</th>
<th>Factor2</th>
<th>Factor3</th>
<th>Factor4</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>If I continue to gamble, I will eventually make money</td>
<td><strong>0.76330</strong></td>
<td>0.21894</td>
<td>0.17162</td>
</tr>
<tr>
<td>27</td>
<td>It doesn't matter if I borrow money to gamble, because I will win and pay it back</td>
<td><strong>0.74012</strong></td>
<td>-0.04031</td>
<td>0.29171</td>
</tr>
<tr>
<td>28</td>
<td>I can often predict when a win will occur</td>
<td><strong>0.72378</strong></td>
<td>0.23437</td>
<td>0.19651</td>
</tr>
<tr>
<td>31</td>
<td>I am more skilful than most gamblers</td>
<td><strong>0.71646</strong></td>
<td>0.29878</td>
<td>0.14660</td>
</tr>
<tr>
<td>21</td>
<td>In the long run I will win more than I will lose</td>
<td><strong>0.64196</strong></td>
<td>0.21571</td>
<td>0.05092</td>
</tr>
<tr>
<td>19</td>
<td>My gambling wins show that I am a skilful gambler</td>
<td><strong>0.58547</strong></td>
<td>0.33475</td>
<td>0.04916</td>
</tr>
<tr>
<td>20</td>
<td>I have a lucky technique I use when I gamble</td>
<td><strong>0.53648</strong></td>
<td>0.39905</td>
<td>0.22371</td>
</tr>
<tr>
<td>24</td>
<td>I have a ritual when I gamble which increases the chances that I will win</td>
<td><strong>0.53036</strong></td>
<td><strong>0.43003</strong></td>
<td>0.28153</td>
</tr>
<tr>
<td>22</td>
<td>I believe there are winning gambling strategies</td>
<td>0.29370</td>
<td><strong>0.77616</strong></td>
<td>0.01295</td>
</tr>
<tr>
<td>23</td>
<td>You've got to stick to a gambling strategy through a run of losses</td>
<td>0.31790</td>
<td><strong>0.73944</strong></td>
<td>0.19251</td>
</tr>
<tr>
<td>26</td>
<td>Gambling success requires dedication and a willingness to invest some money</td>
<td>0.16841</td>
<td><strong>0.61056</strong></td>
<td>0.28599</td>
</tr>
<tr>
<td>17</td>
<td>Near Misses remind me that a win is just around the corner</td>
<td>0.25047</td>
<td>0.14377</td>
<td><strong>0.75887</strong></td>
</tr>
<tr>
<td>25</td>
<td>When you lose money you try to win it back</td>
<td>0.11211</td>
<td>0.27870</td>
<td><strong>0.74663</strong></td>
</tr>
<tr>
<td>15</td>
<td>Even if I am losing I should continue because I don't want to miss a win</td>
<td>0.26515</td>
<td>0.03007</td>
<td><strong>0.74147</strong></td>
</tr>
<tr>
<td>13</td>
<td>Gambling is a Challenge</td>
<td>0.06459</td>
<td>0.07613</td>
<td>0.22374</td>
</tr>
<tr>
<td>18</td>
<td>Gambling is more than just luck</td>
<td>0.10734</td>
<td>0.25293</td>
<td>0.05112</td>
</tr>
<tr>
<td>14</td>
<td>My Gambling knowledge and skill in gambling contribute to the likelihood that I will make money</td>
<td>0.34077</td>
<td>0.18570</td>
<td>0.22082</td>
</tr>
</tbody>
</table>

For this solution, the Kaiser-Meyer-Olkin (KMO) statistic is 0.94037, and the total communality is 10.56/17 or 62.1%

The four factors obtained from this solution all have relatively logical and believable variable groupings and thus interpretation is relatively straightforward. Whilst there are clear overlaps between all four factors, there are distinctions which can be drawn between them too. The interpretations are:

Factor 1: Inevitability /Destined to win and make money/ Optimism
This factor has an undercurrent of inevitability and the belief that skill, luck or technique has a role to play in achieving wins. It fits well with
some of the cognitive theories explaining gambler behaviour that emphasise irrational thinking or distorted belief systems (e.g. Ladoucer & Walker, 1996; Sharpe & Tarrier, 1993). That is, gamblers continue to believe they can win and thus maintain confidence that their gambling methods are effective even in the face of continued loss (Blaszczynski et al., 1999, 10). This might also be explained as an erroneous belief (e.g. Griffiths & Delfabbro, 2001, 11; Walker, 1992, 8).

Factor 2: Dedication and strategy
While the elements of this factor could also be interpreted within the cognitive theories of distorted or erroneous beliefs, sociological interpretations also fit well alongside. As Walker (1996, 239) observes, the mastering of hobbies and the acquisition of competence through practice are part and parcel of successful socialisation in modern western society. This factor beds well within this explanation with its emphasis on dedication and strategic approaches to gambling.

Factor 3: Gamblers fallacy and irrational hope
This factor also reflects elements of irrational beliefs. In particular, the first three elements are indications of the gamblers fallacy – that a series of losses will be corrected by a series of wins (e.g. Tonneato 1999).

Factor 4: Skill and illusion of control
This factor is very similar to Factor 1 but differs through having a lesser emphasis on beliefs that winning is inevitable and more implied control over the outcomes. This fits with theories which argue that illusions of control (e.g. Langer, 1975) are fundamental to the process of gambling (Blaszczynski et al., 1999, 10).

The Factor Analysis: Gambling Self-Efficacy

Three questions from the gambling self-efficacy section referred to gambling on electronic gaming machines only (questions 49, 51 and 55), and so always had a response of "never" from respondents who did not play on electronic gaming machines. These questions were removed from the factor analysis.

A factor analysis of the remaining nineteen gambling self-efficacy questions was run on the correlation matrix using a Varimax rotation to give orthogonal factors. Factor solutions of between two and seven factors were considered.

Examination of the scree plot suggested either three or four factors were most appropriate, these being the points where the plot appears to have a bend (Cattell's criterion), while there are three eigenvalues over 1, which suggests three factors according to Kaiser's criterion. Examining the rotated factor patterns, it can be seen that all the factor patterns (except two factors) have split loadings – questions which load on more than one factor. Increasing the number of factors did not eliminate split loadings, and the six factor solution has one factor which loads on just one variable, indicating that too many factors are being used.

Another possibility which was examined was a solution based on an oblique rotation. Oblique factors (rather than orthogonal factors or factors which are at right angles to one
another) are sometimes used when the underlying factors are closely interrelated with one another. Use of oblique factors can produce factors which are easier to interpret, as split loadings are reduced or eliminated, but they can be harder to use in practice as the factors are correlated with one another. In this case, using oblique rotations reduced, but did not eliminate the split loadings, and produced essentially the same factors (that is, the same questions loading on the same factors) as the orthogonal rotation. The orthogonal rotation solution was chosen in preference to the oblique rotation as the orthogonal solution gives factors which are uncorrelated and can therefore be considered separately to one another.

The four factor solution was selected as it was within the ranges of factors suggested by the scree plot and eigenvalues, and because this solution seemed to be the most understandable. The rotated factor pattern of this solution is in Table 2.

**Table 2. Rotated 4 factor pattern for Gambling Self Efficacy Questions**

<table>
<thead>
<tr>
<th>Rotated Factor Pattern</th>
<th>Factor1</th>
<th>Factor2</th>
<th>Factor3</th>
<th>Factor4</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 I would be able to control my gambling if I had an argument with a friend</td>
<td>0.87223</td>
<td>-0.14253</td>
<td>0.15952</td>
<td>0.26133</td>
</tr>
<tr>
<td>45 I would be able to control my gambling if I had a fight at home</td>
<td>0.85105</td>
<td>-0.20072</td>
<td>0.17049</td>
<td>0.22396</td>
</tr>
<tr>
<td>47 I would be able to control my gambling if I felt anxious about something</td>
<td>0.81381</td>
<td>-0.16574</td>
<td>0.25134</td>
<td>0.23685</td>
</tr>
<tr>
<td>48 I would be able to control my gambling if I had trouble sleeping</td>
<td>0.80264</td>
<td>-0.13542</td>
<td>0.23723</td>
<td>0.23801</td>
</tr>
<tr>
<td>36 I would be able to control my gambling if I was angry</td>
<td>0.73532</td>
<td>-0.24878</td>
<td>0.35821</td>
<td>0.11684</td>
</tr>
<tr>
<td>44 I would be able to control my gambling if I wanted to win back what I had lost</td>
<td>0.67248</td>
<td>-0.21658</td>
<td>0.34321</td>
<td>0.25860</td>
</tr>
<tr>
<td>35 I would be able to control my gambling if I felt depressed</td>
<td>0.63538</td>
<td>-0.29982</td>
<td>0.41820</td>
<td>0.08345</td>
</tr>
<tr>
<td>52 I have difficulty limiting the amount of money I spend</td>
<td>-0.18421</td>
<td>0.84186</td>
<td>-0.16213</td>
<td>-0.17256</td>
</tr>
<tr>
<td>53 I have difficulty stopping play</td>
<td>-0.17089</td>
<td>0.82548</td>
<td>-0.20358</td>
<td>-0.16552</td>
</tr>
<tr>
<td>54 I have difficulty limiting the amount of time I spend gambling</td>
<td>-0.18042</td>
<td>0.80363</td>
<td>-0.13857</td>
<td>-0.19990</td>
</tr>
<tr>
<td>50 I have difficulty limiting the size of bets I place</td>
<td>-0.17021</td>
<td>0.74173</td>
<td>-0.16137</td>
<td>-0.04520</td>
</tr>
<tr>
<td>37 I would be able to control my gambling if I was enjoying myself</td>
<td>0.23179</td>
<td>-0.21216</td>
<td>0.79808</td>
<td>0.16033</td>
</tr>
</tbody>
</table>
### Rotated Factor Pattern

<table>
<thead>
<tr>
<th></th>
<th>Factor1</th>
<th>Factor2</th>
<th>Factor3</th>
<th>Factor4</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>0.24426</td>
<td>-0.17736</td>
<td>0.76609</td>
<td>0.28778</td>
</tr>
<tr>
<td>39</td>
<td>0.47158</td>
<td>-0.22354</td>
<td>0.61561</td>
<td>0.26082</td>
</tr>
<tr>
<td>34</td>
<td>0.44791</td>
<td>-0.24998</td>
<td>0.53837</td>
<td>0.12016</td>
</tr>
<tr>
<td>43</td>
<td>0.48008</td>
<td>-0.17193</td>
<td>0.53119</td>
<td>0.20428</td>
</tr>
<tr>
<td>42</td>
<td>0.37271</td>
<td>-0.09385</td>
<td>0.20736</td>
<td>0.73448</td>
</tr>
<tr>
<td>40</td>
<td>0.27435</td>
<td>-0.38764</td>
<td>0.28711</td>
<td>0.64917</td>
</tr>
<tr>
<td>41</td>
<td>0.30529</td>
<td>-0.34053</td>
<td>0.30615</td>
<td>0.64044</td>
</tr>
</tbody>
</table>

For this solution, the Kaiser-Meyer-Olkin (KMO) statistic is 0.95162641, while the communality is 13.90/19 or 73.2%.

The four factors that are obtained from this solution can be interpreted as:

**Factor 1: Escapism (escaping Tension/Anxiety)**
This factor clearly fits within wider understandings of problem gambling behaviour which emphasise escapism as a factor. That is, gambling is used as a means by which to avoid/forget/escape some other problem. People who are depressed or anxious may gamble to relieve these negative states (Raylu & Oei 2002, 1035).

**Factor 2: Can't resist the game/Impulsivity**
This factor is centred around elements of impulsivity. Where gambling is concerned, control is broken down due to an inability to resist the impulsive urge to gamble or to gamble more. Raylu & Oei (2002, 1023) describe this as behaviour without thought or self-control. Numerous studies have identified impulsivity as a key characteristic of gamblers experiencing problems (e.g. Steel & Blaszczynski, 1998; Blaszczynski, Steel & McConaghy, 1997).

**Factor 3: Value Added Entertainment (Social/Enjoyment)**
While many of the variables contributing to this factor are also weighted on Factor 1, the major difference is that in Factor 3 the lack of control is associated with enjoyment rather than escapism. It reflects gambling as an activity that can enhance other activities and is associated with good times.
Factor 4: Going beyond set limits.
The last factor is associated with breaking limits of time and behaviour.

Results: Factor Means by Gambler groups and Activity.

A logical step forward from the factor analysis procedure is to assess the utility of the identified factors in differentiating gamblers. On this occasion examination of the factors alongside gamblers from each of the gambling groups as well as gamblers who participate on different types of gambling is the approach taken.

To check the utility of the factors generated, the results of the factor analyses have been used to calculate the factors for the survey respondents, and weighted estimates of mean factor values by CPGI gambler group and game played have been prepared. Many records had one or more missing values for the gambling beliefs or gambling self-efficacy questions. This missing data has been imputed using the SAS multiple imputation procedure, which uses a Markov Chain Monte Carlo (MCMC) method to impute missing values.

In the tables below, each of the four gambling beliefs and four gambling self-efficacy factors have been tabulated against gambler group as measured by the CPGI and against players of each of the eleven types of gambling activity measured in the survey. The estimates in the tables are estimated means of each factor and are weighted to the total Queensland population. Note that the total Queensland mean for each factor should be zero (each factor should have a mean of zero and a standard deviation of one) but differs slightly from zero due to the effect of the survey weighting – the factors have been calculated on unweighted data, whereas the use of weights slightly changes the relative contribution of different records and so makes a small changes to the mean. Also, the weighted estimates are based on the full data set, including those with missing values for the gambling beliefs and gambling self-efficacy questions, while the factor analysis has been based on the unimputed data only.

The following tables present the mean of each factor for the gambler groups and game players, along with the standard error estimate and upper and lower confidence intervals calculated at the 95% confidence level. Two means will have a statistically significant difference at the 95% confidence level if their confidence intervals do not overlap. Only tables which contain a statistically significant difference are described in the text. A full set of tables, including those with no significant differences, are provided in the appendices.

Because of the way the gambling beliefs questions are coded, with "strongly agree" coded as one and "strongly disagree" coded as five, a negative value of the gambling beliefs factors as originally calculated indicates agreement with the base questions while a positive value indicates disagreement. Gambling self-efficacy questions vary, as with some questions an "often" or "always" response represents a low level of self control, while for others it represents a higher level of self control.

For simplicity of comparison, the mean factor values examined in this section have been recoded such that:
• For gambling beliefs, a positive value indicates agreement with the belief, and a negative value disagreement.
• For gambling self-efficacy, a positive value indicates inability to exercise self-control, while a negative value indicates ability to exercise control.

**Means for Gambling Beliefs Factors**

For the first analysis, the gambling belief factors are examined against the gambling groups. From this process, only factor 3 - gamblers fallacy and irrational hope - emerged with a clear relationship between gambling groups and the level of agreement with this factor. Members of the problem gambling group stand out as being significantly more likely to be anticipating a win after losses than members of the low risk or moderate risk groups, And members of any of the "at risk" groups are significantly more likely to hold this belief than members of the recreational gambling group.

This factor has thus emerged as an excellent one with which to differentiate our core gambling groups of interest – the recreational gambling group, the problem gambling group and the low risk and moderate risk groups. Of all the factors identified in the analysis, it is this one which performs best in this task. It has clearly differentiated those in the problem group from all of the others and has also differentiated the recreational group from all of the risk groups.

**Gambling Beliefs Factor 3 (Gambler's Fallacy/Irrational Hope)**

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>0.33</td>
<td>0.17</td>
<td>0.50</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>-0.11</td>
<td>-0.34</td>
<td>0.13</td>
</tr>
<tr>
<td>Moderate Risk gambling group</td>
<td>-0.59</td>
<td>-0.95</td>
<td>-0.23</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>-2.3</td>
<td>-2.58</td>
<td>-2.02</td>
</tr>
<tr>
<td>Total Qld</td>
<td>0.23</td>
<td>0.09</td>
<td>0.38</td>
</tr>
</tbody>
</table>

A full comparison of the four gambling beliefs factors by gambler group is given in 0.

When exploring for variations by gambling activity, again there is just one factor which registers any statistically significant differences. This occurs in factor 2 - ‘dedication and strategy’. Persons who play cards or mah-jong type games are more likely to believe in the existence of a winning strategy than are gamblers on a range of other activities including EGMs, lottery products, bingo and horse/ greyhound racing. This may be a reflection of such games having clear strategies which can increase chances of winning compared to the randomness and uncertainty of other types of gambling.
A full comparison of the four gambling beliefs factors by gambling activity is given in 0.

**Means for Gambling Self-Efficacy Factors**

In contrast to the gambling beliefs factors, in which there were few differences evident between the gambling groups, all four of the gambling self-efficacy factors have statistically significant variations across the gambling groups.

For the gambling self-efficacy first factor (escapism from tension/anxiety), members of the problem gambling group and moderate risk gambling group have a lower mean than members of the recreational gambling group. This indicates that in situations where there is tension or anxiety, members of the problem gambling group or moderate risk gambling group report that they would be less likely to exercise control of their gambling than members of the recreational gambling group.

For the second factor – can’t resist the game/impulsivity – members of the recreational gambling group have a significantly lower value than members of all other groups, and members of both the low risk and moderate risk gambling groups have a significantly lower mean than do members of the problem gambling group. This indicates that members of the "at risk" groups are reporting a significantly greater difficulty in stopping play, limiting the size of bets, or resisting the opportunity to play, than members of the
recreational gambling group, and that members of the problem gambling group report a significantly greater difficulty again.

### Gambling Self-Efficacy Factor 2 (Can't resist the game)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>0.29</td>
<td>0.24</td>
<td>0.33</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>-0.09</td>
<td>-0.30</td>
<td>0.11</td>
</tr>
<tr>
<td>Moderate gambling group</td>
<td>-0.35</td>
<td>-0.85</td>
<td>0.14</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>-2.25</td>
<td>-2.85</td>
<td>-1.66</td>
</tr>
<tr>
<td>Total Qld</td>
<td>0.20</td>
<td>0.15</td>
<td>0.26</td>
</tr>
</tbody>
</table>

In terms of the third self efficacy factor – the entertainment factor – members of the recreational gambling group report a greater perceived ability to control their gambling when in social or enjoyable situations than all other groups, while members of the problem gambling group report the lowest self-assessment of control in these types of situations.

### Gambling Self-Efficacy Factor 3 (Value Added Entertainment)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>-0.19</td>
<td>-0.29</td>
<td>-0.09</td>
</tr>
<tr>
<td>Low risk</td>
<td>0.22</td>
<td>-0.09</td>
<td>0.52</td>
</tr>
<tr>
<td>Moderate</td>
<td>0.34</td>
<td>-0.21</td>
<td>0.89</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>1.09</td>
<td>0.46</td>
<td>1.71</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.12</td>
<td>-0.21</td>
<td>-0.02</td>
</tr>
</tbody>
</table>

Members of the problem gambling group also report a lower mean on factor 4 than members of the recreational or low risk gambling groups. This indicates a greater perceived difficulty in controlling gambling in situations where they had reached their self-imposed limits or had other activities that they needed to do.
Gambling Self-Efficacy Factor 4 (Going beyond set limits)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>-0.12</td>
<td>-0.17</td>
<td>-0.06</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>-0.02</td>
<td>-0.26</td>
<td>0.21</td>
</tr>
<tr>
<td>Moderate gambling group</td>
<td>0.65</td>
<td>-0.51</td>
<td>1.81</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>0.81</td>
<td>0.38</td>
<td>1.25</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.07</td>
<td>-0.14</td>
<td>-0.00</td>
</tr>
</tbody>
</table>

Means by Gambling Activities

When the four self-efficacy factors are examined in relation to the different gambling activities, only Factor 1 – escapism from tension and anxiety – emerges with significant differences across gamblers on the various activities. For that factor, people who play on EGMs or those who buy Art Union tickets have a higher perceived ability to control gambling in situations in which they may be anxious or upset than amongst those who play Keno. There are no other statistically significant variations between any other forms of gambling for this factor, or between any forms of gambling for any of the other self-efficacy factors.

This finding is somewhat surprising, particularly given that for this variable, problem gambling group and the higher risk gambling groups were identified as having higher levels of agreement than do recreational gambling group. However, it is must be remembered that the recreational gambling group is the most dominant group in the population and thus the vast majority of EGM gamblers are recreational gambling group and not higher risk gamblers.

Gambling Self-Efficacy Factor 1 (Escapism from Tension/Anxiety) by Gambling Activity

<table>
<thead>
<tr>
<th>Game</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01:EGM</td>
<td>-0.17</td>
<td>-0.25</td>
<td>-0.10</td>
</tr>
<tr>
<td>02:Horse or Greyhound</td>
<td>-0.03</td>
<td>-0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>03:Lotto or Scratchie</td>
<td>-0.11</td>
<td>-0.21</td>
<td>-0.02</td>
</tr>
<tr>
<td>04:Keno</td>
<td>0.06</td>
<td>-0.09</td>
<td>0.21</td>
</tr>
<tr>
<td>05:Casino Table Game</td>
<td>-0.15</td>
<td>-0.27</td>
<td>-0.04</td>
</tr>
<tr>
<td>06:Bingo</td>
<td>0.22</td>
<td>-0.16</td>
<td>0.61</td>
</tr>
<tr>
<td>07:Sports Betting</td>
<td>-0.03</td>
<td>-0.19</td>
<td>0.12</td>
</tr>
<tr>
<td>08:Internet</td>
<td>0.24</td>
<td>-0.69</td>
<td>1.18</td>
</tr>
</tbody>
</table>
Conclusions

The gambling beliefs and gambling self-efficacy questions in the *Communications Strategy Information - Baseline Study* proved to be amenable to factor analysis. Four factors were derived from each section.

Gambling Beliefs:
Factor 1: Inevitability /Destined to win and make money/ Optimism
Factor 2: Dedication and strategy
Factor 3: Gamblers' fallacy and irrational hope
Factor 4: Skill and illusion of control

Gambling Self-Efficacy:
Factor 1: Escapism (escaping Tension/Anxiety)
Factor 2: Can't resist the game/ Impulsivity
Factor 3: Value Added Entertainment (Social/Enjoyment)
Factor 4: Going beyond set limits.

In terms of gambling beliefs, only the third factor (gamblers' fallacy and irrational hope) shows any significant differences between gambling groups. The other factors identified from the gambling beliefs questions (inevitability, dedication & strategy, skill and illusion of control) do not show any significant differences between the gambling groups. By games played, people who play cards or Mah-jong are more likely to believe in gambling strategies than those who play Lotto, EGMs or who bet on horse or greyhound racing.

In contrast, gambling self-efficacy differs significantly across gambling group in all four of the factors identified, with members of the at risk or problem gambling groups reporting being less able to control their gambling in all four of the factors identified.

By games played, people who play on EGMs or who buy Art Union tickets are more likely to believe they can control their gambling in situations of tension and anxiety among people than those who play Keno.

This process may be beneficial in designing consumer awareness campaigns which can focus on the key factors which appear to be most associated with risky levels of gambling activity.

One means by which to advance the analysis conducted here would be to conduct the same assessment as occurred in the final stages here but with cross-tabulations of the gambler groups and gambling activity. This would involve demarcating all EGM gamblers into their gambling groups and conducting the same analysis.

<table>
<thead>
<tr>
<th></th>
<th>0.21</th>
<th>-0.38</th>
<th>0.80</th>
</tr>
</thead>
<tbody>
<tr>
<td>09: Cards or Mah-jong</td>
<td>-0.17</td>
<td>-0.25</td>
<td>-0.08</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.12</td>
<td>-0.29</td>
<td>0.05</td>
</tr>
</tbody>
</table>
References


Appendix 1: Gambling Beliefs Questionnaire

I am going to read some statements to you about your gambling activity. When I read the statement, could you please identify what you think on a scale of 1 to 5, where 1 is strongly agree and 5 is strongly disagree (and 3 is neither agree nor disagree).

Q. 13. The statement is: “Gambling is a challenge.”
Q. 14. The statement is: “My gambling knowledge and skill in gambling contribute to the likelihood that I will make money.”
Q. 15. The statement is: “Even if I am losing, I should continue because I don’t want to miss a win.”
Q. 16. The statement is: “If I keep track of previous winning bets, I can work out what will win in the future.”
Q. 17. The statement is: “Near misses” remind me that a win is just around the corner.
Q. 18. The statement is: “Gambling is more than just luck.”
Q. 19. The statement is: “My gambling wins show that I am a skilful gambler.”
Q. 20. The statement is: “I have a “lucky” technique that I use when I gamble.”
Q. 21. The statement is: “In the long run, I will win more than I will lose.”
Q. 22. The statement is: “I believe there are winning gambling strategies.”
Q. 23. The statement is: “You’ve got to stick to a gambling strategy through a run of losses.”
Q. 24. The statement is: “I have a ritual when I gamble, which increases the chances that I will win.”
Q. 25. The statement is: “When you lose money, you try to win it back.”
Q. 26. The statement is: “Gambling success requires dedication and a willingness to invest some money.”
Q. 27. The statement is: “It doesn’t matter if I borrow money to gamble, because I will win and pay it back.”
Q. 28. The statement is: “I can often predict when a “win” will occur.”
Q. 29. The statement is: “I get the most excitement from gambling.”
Q. 30. The statement is: “If I continue to gamble, I will eventually make money.”
Q. 31. The statement is: “I am more skilful than most gamblers.”

Questions in this section have the same question numbers as in the Communications Strategy Information – Baseline Survey. All questions in this section were coded using the following scale:

(Strongly agree ................................................................. 1
Agree .................................................................................... 2
Neither agree nor disagree .................................................. 3
Disagree .............................................................................. 4
Strongly disagree .............................................................. 5
Don’t know .......................................................................... 6
Refused)................................................................................. 7
Appendix 2: Gambling Self-Efficacy Questionnaire

I am going to ask you some questions regarding your confidence in controlling your own gambling. Control means that you are able to set time and money limits on your gambling, and that you are able to prioritise other activities and responsibilities before your gambling.

The following are situations where your control of your gambling might be tested. Please indicate what you think about each situation. For each statement you will be asked if you would be able to control your gambling never, rarely, sometimes, often or always.

Q. 34. *I would be able to control my gambling* if I am out gambling with my friends, would you say never, rarely, sometimes, often or always?

Q. 35. *I would be able to control my gambling* if I felt depressed, would you say never, rarely, sometimes, often or always?

Q. 36. *I would be able to control my gambling* if I was angry, would you say never, rarely, sometimes, often or always?

Q. 37. *I would be able to control my gambling* if I was enjoying myself, would you say never, rarely, sometimes, often or always?

Q. 38. *I would be able to control my gambling* if I was feeling confident and relaxed, would you say never, rarely, sometimes, often or always?

Q. 39. *I would be able to control my gambling* if other people around me were gambling, would you say never, rarely, sometimes, often or always?

Q. 40. *I would be able to control my gambling* even if I had reached the limit I had set on what I wanted to spend, would you say never, rarely, sometimes, often or always?

Q. 41. *I would be able to control my gambling* even if I had reached the limit I had set on the time I wanted to spend gambling, would you say never, rarely, sometimes, often or always?

Q. 42. *I would be able to control my gambling* even if I had other activities I needed to do, would you say never, rarely, sometimes, often or always?

Q. 43. *I would be able to control my gambling* if I had more than a few drinks, would you say never, rarely, sometimes, often or always?

Q. 44. *I would be able to control my gambling* if I wanted to win back what I had lost, would you say never, rarely, sometimes, often or always?

Q. 45. *I would be able to control my gambling* if I had a fight at home, would you say never, rarely, sometimes, often or always?

Q. 46. *I would be able to control my gambling* if I had an argument with a friend, would you say never, rarely, sometimes, often or always?

Q. 47. *I would be able to control my gambling* if I felt anxious about something, would you say never, rarely, sometimes, often or always?

Q. 48. *I would be able to control my gambling* if I had trouble sleeping, would you say never, rarely, sometimes, often or always?

The following questions are about your opinion about your ability to control your gambling. I will read a statement, and will ask you to respond if you think this is true never, rarely, sometimes, often or always.
Q. 49. I have difficulty resisting the opportunity to play electronic gaming machines (EGMs), would you say never, rarely, sometimes, often or always?
Q. 50. I have difficulty limiting the size of the bets I place, would you say never, rarely, sometimes, often or always?
Q. 51. I continue to play Electronic Gaming Machines (EGMs) after I have reached my limit, would you say never, rarely, sometimes, often or always?
Q. 52. I have difficulty limiting the amount of money I spend, would you say never, rarely, sometimes, often or always?
Q. 53. I continue to play Electronic Gaming Machines (EGMs) after I have reached my limit, would you say never, rarely, sometimes, often or always?
Q. 54. I have difficulty limiting the amount of money I spend gambling, would you say never, rarely, sometimes, often or always?
Q. 55. My desire to play gaming machines is too strong to control, would you say never, rarely, sometimes, often or always?

Questions in this section have the same question numbers as in the Communications Strategy Information – Baseline Survey. Questions in this section were coded using the following scale:

(Never 1
Rarely 2
Sometimes 3
Often 4
Always 5
Don’t know/can’t remember 6
Refused) 7
Appendix 3 Gambling Beliefs Factor Means by Gambler group

Gambling Beliefs Factor 1 (Inevitability /Destined to win and make money/ Optimism) by Gambler group

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>-0.22</td>
<td>-0.36</td>
<td>-0.09</td>
</tr>
<tr>
<td>low risk gambling group</td>
<td>-0.23</td>
<td>-0.44</td>
<td>-0.01</td>
</tr>
<tr>
<td>moderate gambling group</td>
<td>0.01</td>
<td>-0.26</td>
<td>0.29</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>-0.27</td>
<td>-0.55</td>
<td>0.01</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.22</td>
<td>-0.33</td>
<td>-0.10</td>
</tr>
</tbody>
</table>

Gambling Beliefs Factor 2 (Dedication and strategy)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>-0.19</td>
<td>-0.33</td>
<td>-0.04</td>
</tr>
<tr>
<td>low risk gambling group</td>
<td>0.04</td>
<td>-0.23</td>
<td>0.32</td>
</tr>
<tr>
<td>moderate gambling group</td>
<td>0.31</td>
<td>-0.10</td>
<td>0.72</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>-0.14</td>
<td>-0.39</td>
<td>0.11</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.15</td>
<td>-0.27</td>
<td>-0.02</td>
</tr>
</tbody>
</table>

Gambling Beliefs Factor 3 (Gamblers fallacy and irrational hope)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>-0.33</td>
<td>-0.50</td>
<td>-0.17</td>
</tr>
<tr>
<td>low risk gambling group</td>
<td>0.11</td>
<td>-0.13</td>
<td>0.34</td>
</tr>
<tr>
<td>moderate gambling group</td>
<td>0.59</td>
<td>0.23</td>
<td>0.95</td>
</tr>
<tr>
<td></td>
<td>Estimate</td>
<td>Lower Confidence Limit</td>
<td>Upper Confidence Limit</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------</td>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>2.30</td>
<td>2.02</td>
<td>2.58</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.23</td>
<td>-0.38</td>
<td>-0.09</td>
</tr>
</tbody>
</table>

Gambling Beliefs Factor 4 (Skill and illusion of control)

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recreational gambling group</td>
<td>0.05</td>
<td>-0.18</td>
<td>0.27</td>
</tr>
<tr>
<td>low risk gambling group</td>
<td>-0.09</td>
<td>-0.42</td>
<td>0.24</td>
</tr>
<tr>
<td>moderate gambling group</td>
<td>0.24</td>
<td>0.03</td>
<td>0.44</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>-0.06</td>
<td>-0.29</td>
<td>0.17</td>
</tr>
<tr>
<td>Total Qld</td>
<td>0.04</td>
<td>-0.16</td>
<td>0.23</td>
</tr>
</tbody>
</table>
Gambling Beliefs Factor Means by Games Played

Gambling Beliefs Factor 1 (Inevitability /Destined to win and make money/Optimism) by Gambling Activity

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.19</td>
<td>-0.31</td>
<td>-0.07</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.14</td>
<td>-0.35</td>
<td>0.07</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.27</td>
<td>-0.39</td>
<td>-0.15</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.04</td>
<td>-0.16</td>
<td>0.08</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.09</td>
<td>-0.36</td>
<td>0.17</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>-0.26</td>
<td>-0.63</td>
<td>0.11</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>-0.21</td>
<td>-0.56</td>
<td>0.13</td>
</tr>
<tr>
<td>08: Internet</td>
<td>-0.4</td>
<td>-0.94</td>
<td>0.15</td>
</tr>
<tr>
<td>09: Cards or Mahjong</td>
<td>-0.08</td>
<td>-0.35</td>
<td>0.19</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.18</td>
<td>-0.36</td>
<td>0</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>0.13</td>
<td>-0.25</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Gambling Beliefs Factor 2 ((Dedication and strategy) by Gambling Activity

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.12</td>
<td>-0.25</td>
<td>0.02</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.16</td>
<td>-0.34</td>
<td>0.02</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.15</td>
<td>-0.29</td>
<td>0</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.04</td>
<td>-0.17</td>
<td>0.09</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.06</td>
<td>-0.34</td>
<td>0.21</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>-0.41</td>
<td>-0.85</td>
<td>0.03</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>-0.19</td>
<td>-0.54</td>
<td>0.16</td>
</tr>
<tr>
<td>08: Internet</td>
<td>0.09</td>
<td>-0.81</td>
<td>1</td>
</tr>
<tr>
<td>09: Cards or Mahjong</td>
<td>0.46</td>
<td>0.02</td>
<td>0.9</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.04</td>
<td>-0.19</td>
<td>0.11</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>-0.03</td>
<td>-0.5</td>
<td>0.43</td>
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</table>
### Gambling Beliefs Factor 3 (Gamblers fallacy and irrational hope) by Gambling Activity

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.12</td>
<td>-0.3</td>
<td>0.06</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.33</td>
<td>-0.48</td>
<td>-0.19</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.24</td>
<td>-0.4</td>
<td>-0.08</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.08</td>
<td>-0.19</td>
<td>0.04</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.19</td>
<td>-0.48</td>
<td>0.1</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>-0.21</td>
<td>-0.4</td>
<td>-0.03</td>
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<td>07: Sports Betting</td>
<td>-0.35</td>
<td>-0.71</td>
<td>0.02</td>
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<tr>
<td>08: Internet</td>
<td>-0.06</td>
<td>-0.67</td>
<td>0.54</td>
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<tr>
<td>09: Cards or Mahjong</td>
<td>-0.08</td>
<td>-0.46</td>
<td>0.31</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.26</td>
<td>-0.39</td>
<td>-0.13</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>0.07</td>
<td>-0.41</td>
<td>0.56</td>
</tr>
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</table>

### Gambling Beliefs Factor 4 (Skill and illusion of control) by Gambling Activity

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.03</td>
<td>-0.24</td>
<td>0.17</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>0.11</td>
<td>-0.23</td>
<td>0.46</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>0.05</td>
<td>-0.17</td>
<td>0.26</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.1</td>
<td>-0.23</td>
<td>0.02</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>0.13</td>
<td>-0.22</td>
<td>0.47</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>0.11</td>
<td>-0.42</td>
<td>0.63</td>
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<tr>
<td>07: Sports Betting</td>
<td>0.08</td>
<td>-0.18</td>
<td>0.34</td>
</tr>
<tr>
<td>08: Internet</td>
<td>0.39</td>
<td>-0.63</td>
<td>1.4</td>
</tr>
<tr>
<td>09: Cards or Mahjong</td>
<td>0.47</td>
<td>-0.16</td>
<td>1.1</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.01</td>
<td>-0.18</td>
<td>0.15</td>
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<tr>
<td>11: Other Gambling</td>
<td>-0.4</td>
<td>-0.91</td>
<td>0.11</td>
</tr>
<tr>
<td>Gambling Self-Efficacy Factor Means by Gambler group</td>
<td>Estimate</td>
<td>Lower Confidence Limit</td>
<td>Upper Confidence Limit</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>----------</td>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td><strong>Gambling Self-Efficacy Factor 1 (Escapism from Tension/Anxiety) by gambler group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambler group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>-0.16</td>
<td>-0.25</td>
<td>-0.07</td>
</tr>
<tr>
<td>low risk</td>
<td>-0.07</td>
<td>-0.26</td>
<td>0.12</td>
</tr>
<tr>
<td>moderate</td>
<td>0.75</td>
<td>-0.01</td>
<td>1.51</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>0.64</td>
<td>-0.04</td>
<td>1.32</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.11</td>
<td>-0.20</td>
<td>-0.03</td>
</tr>
<tr>
<td><strong>Gambling Self-Efficacy Factor 2 (Can't resist the game)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambler group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>0.29</td>
<td>0.24</td>
<td>0.33</td>
</tr>
<tr>
<td>low risk</td>
<td>-0.09</td>
<td>-0.30</td>
<td>0.11</td>
</tr>
<tr>
<td>moderate</td>
<td>-0.35</td>
<td>-0.85</td>
<td>0.14</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>-2.25</td>
<td>-2.85</td>
<td>-1.66</td>
</tr>
<tr>
<td>Total Qld</td>
<td>0.20</td>
<td>0.15</td>
<td>0.26</td>
</tr>
<tr>
<td><strong>Gambling Self-Efficacy Factor 3 (Value Added Entertainment)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambler group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>-0.19</td>
<td>-0.29</td>
<td>-0.09</td>
</tr>
<tr>
<td>low risk</td>
<td>0.22</td>
<td>-0.09</td>
<td>0.52</td>
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<tr>
<td>moderate</td>
<td>0.34</td>
<td>-0.21</td>
<td>0.89</td>
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<tr>
<td>problem gambling group</td>
<td>1.09</td>
<td>0.46</td>
<td>1.71</td>
</tr>
<tr>
<td>Total Qld</td>
<td>-0.12</td>
<td>-0.21</td>
<td>-0.02</td>
</tr>
<tr>
<td><strong>Gambling Self-Efficacy Factor 4 (Going beyond set limits)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gambler group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>-0.12</td>
<td>-0.17</td>
<td>-0.06</td>
</tr>
<tr>
<td>low risk</td>
<td>-0.02</td>
<td>-0.26</td>
<td>0.21</td>
</tr>
<tr>
<td>moderate</td>
<td>0.65</td>
<td>-0.51</td>
<td>1.81</td>
</tr>
<tr>
<td>problem gambling group</td>
<td>0.81</td>
<td>0.38</td>
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<tr>
<td>Total Qld</td>
<td>-0.07</td>
<td>-0.14</td>
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</table>
Gambling Self-Efficacy Factor Means by Games Played

Gambling Self-Efficacy Factor 1 (Escapism from Tension/Anxiety) by Gambling Activity

<table>
<thead>
<tr>
<th>Game</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.17</td>
<td>-0.25</td>
<td>-0.1</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.03</td>
<td>-0.18</td>
<td>0.12</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.11</td>
<td>-0.21</td>
<td>-0.02</td>
</tr>
<tr>
<td>04: Keno</td>
<td>0.06</td>
<td>-0.09</td>
<td>0.21</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.15</td>
<td>-0.27</td>
<td>-0.04</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>0.22</td>
<td>-0.16</td>
<td>0.61</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>-0.03</td>
<td>-0.19</td>
<td>0.12</td>
</tr>
<tr>
<td>08: Internet</td>
<td>0.24</td>
<td>-0.69</td>
<td>1.18</td>
</tr>
<tr>
<td>09: Cards or Mahjong</td>
<td>0.21</td>
<td>-0.38</td>
<td>0.8</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.17</td>
<td>-0.25</td>
<td>-0.08</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>-0.12</td>
<td>-0.29</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Gambling Self-Efficacy Factor 2 (Can't resist the game) by Gambling Activity

<table>
<thead>
<tr>
<th>Game</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>0.16</td>
<td>0.10</td>
<td>0.22</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>0.23</td>
<td>0.16</td>
<td>0.31</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>0.21</td>
<td>0.15</td>
<td>0.26</td>
</tr>
<tr>
<td>04: Keno</td>
<td>0.19</td>
<td>0.10</td>
<td>0.27</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>0.23</td>
<td>0.17</td>
<td>0.30</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>0.24</td>
<td>0.11</td>
<td>0.37</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>0.14</td>
<td>0.00</td>
<td>0.29</td>
</tr>
<tr>
<td>08: Internet</td>
<td>0.37</td>
<td>0.12</td>
<td>0.63</td>
</tr>
<tr>
<td>09: Cards or Mahjong</td>
<td>0.02</td>
<td>-0.37</td>
<td>0.41</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>0.16</td>
<td>0.08</td>
<td>0.24</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>-0.20</td>
<td>-0.66</td>
<td>0.25</td>
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</table>
### Gambling Self-Efficacy Factor 3 (Value Added Entertainment) by Gambling Activity

<table>
<thead>
<tr>
<th>Game</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.07</td>
<td>-0.18</td>
<td>0.04</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.1</td>
<td>-0.25</td>
<td>0.05</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.1</td>
<td>-0.2</td>
<td>0</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.05</td>
<td>-0.18</td>
<td>0.07</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.09</td>
<td>-0.32</td>
<td>0.14</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>-0.36</td>
<td>-0.64</td>
<td>-0.08</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>-0.1</td>
<td>-0.36</td>
<td>0.15</td>
</tr>
<tr>
<td>08: Internet</td>
<td>0.19</td>
<td>-0.31</td>
<td>0.69</td>
</tr>
<tr>
<td>09: Cards or Mah-jong</td>
<td>-0.14</td>
<td>-0.45</td>
<td>0.17</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.15</td>
<td>-0.28</td>
<td>-0.01</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>0.29</td>
<td>-0.21</td>
<td>0.78</td>
</tr>
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</table>

### Gambling Self-Efficacy Factor 4 (Going beyond set limits) by Gambling Activity

<table>
<thead>
<tr>
<th>Game</th>
<th>Estimate</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>01: EGM</td>
<td>-0.11</td>
<td>-0.17</td>
<td>-0.04</td>
</tr>
<tr>
<td>02: Horse or Greyhound</td>
<td>-0.01</td>
<td>-0.15</td>
<td>0.13</td>
</tr>
<tr>
<td>03: Lotto or Scratchie</td>
<td>-0.09</td>
<td>-0.17</td>
<td>-0.01</td>
</tr>
<tr>
<td>04: Keno</td>
<td>-0.07</td>
<td>-0.22</td>
<td>0.07</td>
</tr>
<tr>
<td>05: Casino Table Game</td>
<td>-0.13</td>
<td>-0.31</td>
<td>0.04</td>
</tr>
<tr>
<td>06: Bingo</td>
<td>0.16</td>
<td>-0.39</td>
<td>0.7</td>
</tr>
<tr>
<td>07: Sports Betting</td>
<td>-0.02</td>
<td>-0.15</td>
<td>0.11</td>
</tr>
<tr>
<td>08: Internet</td>
<td>-0.36</td>
<td>-0.9</td>
<td>0.18</td>
</tr>
<tr>
<td>09: Cards or Mah-jong</td>
<td>-0.27</td>
<td>-0.63</td>
<td>0.1</td>
</tr>
<tr>
<td>10: Art Union Ticket</td>
<td>-0.1</td>
<td>-0.18</td>
<td>-0.01</td>
</tr>
<tr>
<td>11: Other Gambling</td>
<td>-0.25</td>
<td>-0.83</td>
<td>0.32</td>
</tr>
</tbody>
</table>
LONGITUDINAL GAMBLING STUDY

Barry Haworth

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City East Queensland 4002
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Fax: (07) 3227 7437
barry.haworth@treasury.qld.gov.au

ABSTRACT

In April 2005, Queensland Treasury conducted a survey to measure gambling activity and attitudes to gambling among the Queensland population. This survey recontacted people who had responded to the Queensland Household Gambling Survey conducted in 2003-2004, and readministered the Canadian Problem Gambling Index (CPGI) to measure gambling activity and gambler group. In this paper, the gambling activity and status of the survey respondents in the two survey waves are compared.

This paper identifies methodological issues with administering a population survey on gambling issues, and also identifies changes in CPGI gambling group between the two surveys, with at-risk gamblers in particular being likely to change to a lower risk gambler group. Responses to CPGI questions showed a progression from recreational gambling group to low risk and higher risk groups, with the same progressions evident for persons whose risk level decreased. No clear trends were found in gambling activities.

Introduction

The Communication Strategy Information – Baseline Survey was conducted in April 2005 to evaluate beliefs about gambling in the Queensland population and perceptions of personal control of gambling (gambling self-efficacy). The survey was run prior to the launch of the Responsible Gambling Community Awareness Campaign on the 17th of April 2005, in order to gain a measure of attitudes to gambling prior to the campaign.

The survey was conducted by telephone. To ensure that a reasonable number of persons from the different Canadian Problem Gambling Index (CPGI) gambling groups were included, the survey recontacted respondents from the Queensland Household Gambling Survey 2003/2004 who had indicated willingness to be recontacted for further research.

Although it had not been the intention of the survey design this gave the opportunity for a short-period longitudinal study, examining the gambling status and behaviour of respondents in the two periods (twelve to eighteen months apart) and identifying any changes between the two periods.
This paper will examine what was learned from this short-period longitudinal study, looking at the changes in gambling status and behaviour of individuals between the two periods, at what we can learn of the factors that distinguish people who change and who do not change gambling status, and at the operational aspects of a longitudinal study of this nature.

Operational Aspects

Persons taking part in this study were first sampled in the Queensland Household Gambling Survey 2003/2004. In order to participate in the study, respondents had to first complete the Queensland Household Gambling Survey 2003/2004, consent to take part in further research, and then be contacted and complete the new survey.

Respondents to the Queensland Household Gambling Survey 2003/2004 had different completion rates depending on gambler group. Response rates by CPGI gambler group are given in Table 1 below. CPGI gambling groups are based on the scores obtained from the Canadian Problem Gambling Index. The categories used in this study are:

- Non-gambling group – no gambling reported in the last twelve months
- Recreational gambling group – CPGI score of 0
- Low risk gambling group – CPGI score of 1 or 2
- Moderate risk gambling group – CPGI score of 3 to 7
- Problem gambling group – CPGI of 8 or more.

For those respondents who were asked the full survey, the completion rate was highest (97.1%) for the low risk gambling group, and lowest (93.8%) for the problem gambling group, with an average rate of 96.3%. It is worth noting that the completion rate for the non-gambling group (95.9%) was the second lowest of the different gambling groups, possibly because people who did not gamble did not consider a survey on gambling relevant.

Table 1. Completion rate and Dropout rate by Gambler group, Queensland Household Gambling Survey 2003/2004

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Total</th>
<th>Completed</th>
<th>Completion Rate</th>
<th>Dropout Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>3,191</td>
<td>3,061</td>
<td>95.9%</td>
<td>4.1%</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>4,004</td>
<td>3,864</td>
<td>96.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>976</td>
<td>948</td>
<td>97.1%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>498</td>
<td>480</td>
<td>96.4%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>160</td>
<td>150</td>
<td>93.8%</td>
<td>6.2%</td>
</tr>
<tr>
<td>All People</td>
<td>8,829</td>
<td>8,503</td>
<td>96.3%</td>
<td>3.7%</td>
</tr>
</tbody>
</table>
At the end of the *Queensland Household Gambling Survey 2003/2004*, respondents were asked if they would be willing to take part in future gambling research (Table 2). The consent rate was highest (85.3%) among the problem gambling group and lowest (71.5%) among the non-gambling group, with an average rate of 77.1%.

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Consent</th>
<th>Did not Consent</th>
<th>Total</th>
<th>Consent Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>2,189</td>
<td>872</td>
<td>3,061</td>
<td>71.5%</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>3,046</td>
<td>818</td>
<td>3,864</td>
<td>78.8%</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>789</td>
<td>159</td>
<td>948</td>
<td>83.2%</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>402</td>
<td>78</td>
<td>480</td>
<td>83.8%</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>128</td>
<td>22</td>
<td>150</td>
<td>85.3%</td>
</tr>
<tr>
<td>All People</td>
<td>6,554</td>
<td>1,949</td>
<td>8,503</td>
<td>77.1%</td>
</tr>
</tbody>
</table>

In the *Communication Strategy Information - Baseline Survey*, all available respondents from the "at-risk" groups (that is, all people with a CPGI score of 1 or more) were sampled, along with a sample of respondents from the non-gambling group and the recreational gambling group. The number of records where contact was attempted (the attempted sample) is given in Table 3. Note that some consenting respondents in the low risk gambling group and the moderate risk gambling group were used in a pilot test, resulting in the attempted sample for these groups being slightly smaller than the available consenting sample in Table 2 above.

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>October 2003</th>
<th>April 2004</th>
<th>Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>295</td>
<td>305</td>
<td>600</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>1,112</td>
<td>1,038</td>
<td>2,150</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>424</td>
<td>336</td>
<td>760</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>216</td>
<td>165</td>
<td>381</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>65</td>
<td>63</td>
<td>128</td>
</tr>
<tr>
<td>Total</td>
<td>2,112</td>
<td>1,907</td>
<td>4,019</td>
</tr>
</tbody>
</table>

**Contacting the same respondent**

Care was taken to contact the same respondent. Age and gender were recorded in both waves of the survey along with respondent name for those respondents who consented to take part in future research. To confirm that the same respondent had been contacted, age and gender from the two waves of the survey were compared, and either corrected if an obvious error had been made (for example, respondent named "Jenny" recorded as male
in one survey and female in the other), or removed from the survey if it was apparent that a different person had been interviewed (names as well as gender or age were different). Some peculiarities remained in the sample – a number of people reported a lower age in the Communication Strategy Information - Baseline Survey than in the Queensland Household Gambling Survey 2003/2004, while others reported an increase in age of more than five years in the 12 to 18 month interval between surveys. Where the person interviewed gave the same name in both surveys, these discrepancies in age or gender were nominated as mistakes in data entry and corrected. A total of 23 people had their age altered on this basis (19 grown younger, 4 aging more than five years) and 13 people had their gender changed.

Response rates

As in any survey sample, not all those contacted responded in the survey. Of the 4,019 people approached, a total of 2,258 people completed the survey.

The survey response rate was found to vary according to the age of the sample and according to the gambler group.

Because the Communication Strategy Information - Baseline Survey recontacted people from an earlier survey all numbers contacted were potentially in scope, even if they had since moved. Only people who had died in the intervening period were deemed to be out of scope.

Response rate by age of sample

The Queensland Household Gambling Survey was conducted in two waves, in October/November 2003 and in April/May 2004. When these people were recontacted in April 2004 it was after an interval of either 12 or 18 months. Response rates to the survey were broken down by the two source periods are given in Table 4 below.

It can be seen that the response rate was higher for people recontacted after a shorter (12 month) time period. Attempting to recontact after a longer (18 month) period was less likely to result in a completed interview.

<table>
<thead>
<tr>
<th>Source Period</th>
<th>In Scope Respondents</th>
<th>In Scope Non Respondents</th>
<th>Out of Scope</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2003 (18 month interval)</td>
<td>1,149</td>
<td>954</td>
<td>9</td>
<td>54.6%</td>
</tr>
<tr>
<td>April 2004 (12 month interval)</td>
<td>1,109</td>
<td>794</td>
<td>4</td>
<td>58.2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,258</strong></td>
<td><strong>1,748</strong></td>
<td><strong>13</strong></td>
<td><strong>56.4%</strong></td>
</tr>
</tbody>
</table>

A more detailed breakdown of sample disposition is given in 0. This table shows that the chief reasons for the difference in response rate by source period are that a higher proportion of the people being contacted are no longer at the same phone number in the older sample (5.6% for the April 2004 sample, 9.0% for the October 2003 sample) and there are a higher proportion of disconnected numbers (11.6% for the April 2004 sample, 11.0% for the October 2003 sample).
14.1% for the October 2003 sample). Both causes are consistent with the person originally interviewed having moved, an event that becomes more likely as time elapses since the last contact was made.

**Response by gambler group**

Response rates also varied by gambler group, as indicated in Table 5 below. The gambler group as used in the table is the gambler group at the time of initial contact, rather than the gambler group as determined in the Communication Strategy Information - Baseline Survey.

It can be seen that the response rate was lowest for the problem gambling group (39.1%) and highest for the recreational gambling group (59.2%). Response rate for the non-gambling group (56.9%) is not much lower than the recreational gambling group. The response rate drops dramatically as the risk level of the respondent increases.

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>In Scope Respondents</th>
<th>In Scope Non Respondents</th>
<th>Out of Scope</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>341</td>
<td>258</td>
<td>1</td>
<td>56.9%</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>1,269</td>
<td>873</td>
<td>8</td>
<td>59.2%</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>414</td>
<td>344</td>
<td>2</td>
<td>54.6%</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>184</td>
<td>195</td>
<td>2</td>
<td>48.6%</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>50</td>
<td>78</td>
<td>0</td>
<td>39.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,258</strong></td>
<td><strong>1,748</strong></td>
<td><strong>13</strong></td>
<td><strong>56.4%</strong></td>
</tr>
</tbody>
</table>

The causes of the changes in response by gambler group are summarised in Table 6 (below). In this table, all survey responses are classified as complete, no answer or disconnected, refused or engaged and other codes, or out of scope. A full breakdown of sample disposition by gambler group and individual response code is given in 0.

From this table, it can be seen that the proportion of no answer or disconnected numbers increases as gambling risk increases, and that the refusal rate is also highest for the problem gambling group. Gamblers in the higher risk CPGI groups are therefore harder to recontact and more likely to refuse an interview once they are recontacted.
Table 6. Response & non-response counts and percentages (summary) by gambler group.

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Complete</th>
<th>No Answer/Disconnected</th>
<th>Refused</th>
<th>Engaged etc.</th>
<th>OOS</th>
<th>Total (excluding OOS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>341</td>
<td>63</td>
<td>47</td>
<td>148</td>
<td>1</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td>56.8%</td>
<td>10.5%</td>
<td>7.8%</td>
<td>24.7%</td>
<td>0.2%</td>
<td>100%</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>1269</td>
<td>297</td>
<td>136</td>
<td>440</td>
<td>8</td>
<td>2150</td>
</tr>
<tr>
<td></td>
<td>59.0%</td>
<td>13.8%</td>
<td>6.3%</td>
<td>20.5%</td>
<td>0.4%</td>
<td>100%</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>414</td>
<td>142</td>
<td>45</td>
<td>157</td>
<td>2</td>
<td>760</td>
</tr>
<tr>
<td></td>
<td>54.5%</td>
<td>18.7%</td>
<td>5.9%</td>
<td>20.7%</td>
<td>0.3%</td>
<td>100%</td>
</tr>
<tr>
<td>Moderate Risk</td>
<td>184</td>
<td>83</td>
<td>35</td>
<td>77</td>
<td>2</td>
<td>381</td>
</tr>
<tr>
<td></td>
<td>48.3%</td>
<td>21.8%</td>
<td>9.2%</td>
<td>20.2%</td>
<td>0.5%</td>
<td>100%</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>50</td>
<td>32</td>
<td>14</td>
<td>32</td>
<td>0</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>39.1%</td>
<td>25.0%</td>
<td>10.9%</td>
<td>25.0%</td>
<td>0.0%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>2258</td>
<td>617</td>
<td>277</td>
<td>854</td>
<td>13</td>
<td>4019</td>
</tr>
<tr>
<td></td>
<td>56.2%</td>
<td>15.4%</td>
<td>6.9%</td>
<td>21.2%</td>
<td>0.3%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Consent rates and response rates are combined in Table 7 (below), thus giving the final recontact response rate. It can be seen even the group with the highest combined recontact response rate – the recreational gambling group – gives a combined rate of 46.6% (less than half), while the combined recontact response rate for the problem gambling group is around a third. Although this survey was not set up as a longitudinal study this result illustrates the difficulties of conducting a longitudinal study of this nature. Clearly, if a longitudinal study of gamblers were to be conducted over three or more waves, care would need to be taken to ensure that the response rate remained as high as possible. It is also noteworthy that despite the fact that the problem gambling group have the highest consent rate for taking part in future research, this higher rate is more than offset by a much lower response rate (driven by higher refusal and non-contact rates) in the second wave of the survey.

Table 7. Combined Consent and Response rate by Gambler group..

<table>
<thead>
<tr>
<th>Gambler group</th>
<th>Consent Rate</th>
<th>Response Rate</th>
<th>Product of Consent &amp; Response Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>71.5%</td>
<td>56.9%</td>
<td>40.7%</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>78.8%</td>
<td>59.2%</td>
<td>46.6%</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>83.2%</td>
<td>54.6%</td>
<td>45.4%</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>83.8%</td>
<td>48.6%</td>
<td>40.7%</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>85.3%</td>
<td>39.1%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Total</td>
<td>77.1%</td>
<td>56.4%</td>
<td>43.5%</td>
</tr>
</tbody>
</table>
In the analysis that follows, the survey weighting has been adjusted to compensate for these differences in response rate so as to get the most accurate response possible. Groups such as problem gambling group which have a lower response rate have been given a higher weight to compensate, thus ensuring that all groups are properly represented in the final estimates.

**Survey Results**

The longitudinal nature of the survey results allows for a number of comparisons in the changes in gambling behaviour and attitudes in the time period covered by the survey. The report that follows takes an initial look at the data, looking at changes in games played and in CPGI gambler group. This is followed by an examination of the changes in response to questions asked in both waves of the survey, broken down by CPGI gambler group.

**Changes in Gambler group**

Gambler group, as measured using the Canadian Problem Gambling Index, was measured in both phases of the survey. Estimates by gambling status in the old and new wave are given in Table 8 (below). A more complete table, including estimates of confidence intervals, is given in 0. Estimates are weighted to represent the Queensland population 18+ and are subject to sample variation. Estimates with an asterisk (*) have a relative standard error of between 25% and 50% and should be interpreted with caution. Estimates with a double asterisk (**) have a relative standard error of 50% or more, and should be interpreted with greater caution.

There are a number of observations which can be made from Table 8. Firstly, membership in a gambler group is volatile – many people have changed their gambler group between the two surveys compared in this study. In total, an estimated 2,126,086 Queenslanders (72.6% of all Queenslanders aged 18 or over) are in the same CPGI gambling group in both surveys, 417,407 (14.3%) have increased (moved to a higher risk group) and 383,594 (13.1%) have moved to a lower risk group. In sort, more than a quarter of Queenslanders have changed their gambling group in the period of the study.

People in the recreational gambling group (81.1% the same) are most likely to remain in the same group, followed by people in the non-gambling group (55.4%). For each of the gambling groups, members are more likely to move to a lower risk gambling group than to move to a higher risk group, and for all of the at-risk groups, members are more likely to decrease their gambling status than to either remain in the same group or move to a higher risk group. Members of the problem gambling group appear most likely to have a big change in their gambling risk level, although it should be noted that the standard errors for the problem gambling group are such that these figures should be interpreted with caution.
Despite the evident volatility of the gambling population, the overall population pattern – demonstrated by the total number of people in each of the five CPGI-based categories – remains much the same. Underlying this, though, it appears that there is a high degree of change in the gambling status of individuals in the population.

It should be noted that due to the size of the standard errors in this study it is not possible to estimate whether prevalence of any gambling group is increasing or decreasing.

### Changes in Games Played

The *Communication Strategy Information - Baseline Survey* recorded gambling activity – games played – in both waves of the survey. This information is summarised in Table 9 below. For each game, the population is broken down into four groups:

- those who did not play the game in either wave,
- those who played in the first wave only
- those who played in the second wave only, and
- those who played in both waves.

Estimated number and percentage of the total Queensland adult population (a total of 2,927,087 people aged 18 and over) for the different groups is given in the table. The final column of the table, labeled "Persistence", is the ratio of those who play the game in

<table>
<thead>
<tr>
<th>Old Gambling Category</th>
<th>Non-gambling group</th>
<th>Recreational gambling group</th>
<th>Low risk gambling group</th>
<th>Moderate risk gambling group</th>
<th>Problem gambling group</th>
<th>Total Qld</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-gambling group</td>
<td>320,277 (55.4%)</td>
<td>251,451 (43.5%)</td>
<td>1,212** (0.2%)</td>
<td>4,712** (0.8%)</td>
<td>.</td>
<td>577,652</td>
</tr>
<tr>
<td>Recreational gambling group</td>
<td>260,492 (12.3%)</td>
<td>1,718,342 (81.1%)</td>
<td>128,967* (6.0%)</td>
<td>11,416** (0.5%)</td>
<td>.</td>
<td>2,119,218</td>
</tr>
<tr>
<td>Low risk gambling group</td>
<td>2,145* (1.3%)</td>
<td>75,175 (48.1%)</td>
<td>63,764* (40.8%)</td>
<td>15,089* (9.6%)</td>
<td>108** (0.0%)</td>
<td>156,282</td>
</tr>
<tr>
<td>Moderate risk gambling group</td>
<td>358** (0.6%)</td>
<td>13,641 (23.6%)</td>
<td>22,719 (39.4%)</td>
<td>16,565* (28.6%)</td>
<td>4,449* (7.7%)</td>
<td>57,734</td>
</tr>
<tr>
<td>Problem gambling group</td>
<td>.</td>
<td>6,957** (42.9%)</td>
<td>674** (4.1%)</td>
<td>1,430** (8.8%**</td>
<td>7,138** (44.0%)</td>
<td>16,201</td>
</tr>
<tr>
<td>Total Qld</td>
<td>583,272 (19.9%)</td>
<td>2,065,566 (70.6%)</td>
<td>217,339 (7.4%)</td>
<td>49,214 (1.7%)</td>
<td>11,696* (0.3%)</td>
<td>2,927,087</td>
</tr>
</tbody>
</table>
both waves as a percentage of all those who play the game at all. This table illustrates a number of interesting points:

- Firstly, there is a good deal of variation in game play. Some people will continue with a game, while others will play in one period and not the other.
- There is considerable variation in persistence across the major games, ranging from almost 72% of Lotto players and 59% of EGM players to 33% of those playing Casino table games and 20% of those who bet on sports.
- Games played by a small percentage of the population tend to have a low persistence.

<table>
<thead>
<tr>
<th>Game</th>
<th>Did Not Play</th>
<th>First Wave Only</th>
<th>Second Wave Only</th>
<th>Both Waves</th>
<th>% Did not Play</th>
<th>% First Wave Only</th>
<th>% Second Wave Only</th>
<th>% Both Waves</th>
<th>Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGM</td>
<td>1,674,445</td>
<td>205,302</td>
<td>311,970</td>
<td>735,370</td>
<td>57.2%</td>
<td>7.0%</td>
<td>10.7%</td>
<td>25.1%</td>
<td>58.7%</td>
</tr>
<tr>
<td>Horse</td>
<td>2,191,870</td>
<td>177,638</td>
<td>248,950</td>
<td>308,629</td>
<td>74.9%</td>
<td>6.1%</td>
<td>8.5%</td>
<td>10.5%</td>
<td>42.0%</td>
</tr>
<tr>
<td>Lotto</td>
<td>547,432</td>
<td>314,899</td>
<td>355,962</td>
<td>1,708,795</td>
<td>18.7%</td>
<td>10.8%</td>
<td>12.2%</td>
<td>58.4%</td>
<td>71.8%</td>
</tr>
<tr>
<td>Keno</td>
<td>2,235,510</td>
<td>164,076</td>
<td>248,551</td>
<td>278,950</td>
<td>76.4%</td>
<td>5.6%</td>
<td>8.5%</td>
<td>9.5%</td>
<td>40.3%</td>
</tr>
<tr>
<td>Casino Table Games</td>
<td>2,689,978</td>
<td>63,569</td>
<td>94,392</td>
<td>79,149</td>
<td>91.9%</td>
<td>2.2%</td>
<td>3.2%</td>
<td>2.7%</td>
<td>33.4%</td>
</tr>
<tr>
<td>Bingo</td>
<td>2,788,463</td>
<td>24,180</td>
<td>60,550</td>
<td>53,893</td>
<td>95.3%</td>
<td>0.8%</td>
<td>2.1%</td>
<td>1.8%</td>
<td>38.9%</td>
</tr>
<tr>
<td>Sports Betting</td>
<td>2,740,886</td>
<td>62,962</td>
<td>86,441</td>
<td>36,798</td>
<td>93.6%</td>
<td>2.2%</td>
<td>3.0%</td>
<td>1.3%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Internet Gambling</td>
<td>2,889,126</td>
<td>4,565</td>
<td>30,953</td>
<td>2,443</td>
<td>98.7%</td>
<td>0.2%</td>
<td>1.1%</td>
<td>0.1%</td>
<td>6.4%</td>
</tr>
<tr>
<td>Cards or Mah-jong</td>
<td>2,825,978</td>
<td>48,530</td>
<td>37,090</td>
<td>15,489</td>
<td>96.5%</td>
<td>1.7%</td>
<td>1.3%</td>
<td>0.5%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Art Union</td>
<td>1,674,828</td>
<td>258,780</td>
<td>414,151</td>
<td>579,328</td>
<td>57.2%</td>
<td>8.8%</td>
<td>14.1%</td>
<td>19.8%</td>
<td>46.3%</td>
</tr>
<tr>
<td>Other Gambling</td>
<td>2,922,604</td>
<td>814</td>
<td>3,668</td>
<td>0</td>
<td>99.8%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Due to the size of the standard errors in these results, it is not possible to say that any gaming activity has seen a growth or a decline.
Questions asked in both surveys

The two surveys reported on in this paper (the *Queensland Household Gambling Survey 2003/2004* and the *Communication Strategy Information - Baseline Survey*) had different aims and different sets on questions. Only a limited number of questions were asked in both surveys. These were:

- CPGI scoring questions;
- gambling activity (games played);
- CPGI correlate questions; and
- demographics;

In the sections that follow, changes in the responses to these questions will be examined. This will be broken down according to the respondent's gambling status as measured at the time of the *Queensland Household Gambling Survey 2003/2004*. For simplicity, the numbers reported below are the unweighted frequency counts from the survey rather than the weighted population estimates quoted above.

In the analysis that follows, changes in gambling activity and CPGI questions have been broken down by the original gambling group and by whether the gambling group has increased, stayed the same or decreased. Percentages of the number of people who participate in a gambling activity by this breakdown are given in 0, while the percentage of who agree with the different CPGI items is given in 0. The reporting is based on unweighted frequency counts rather than weighted estimates.

Examination of change by Gambler group – Non-gambling group

A total of 341 people in the non-gambling group from the *Queensland Household Gambling Survey 2003/2004* were interviewed in the *Communication Strategy Information - Baseline Survey*.

Of these, 122 people in the non-gambling group (35.8%) have taken up gambling, with most (119 or 34.9%) entering the recreational gambling group. Two have entered the low risk gambling group and one the moderate risk gambling group. However, most people in the non-gambling group (219 or 64.2%) remain in the non-gambling group.

By CPGI group, most members of the non-gambling groups either remain in the non-gambling group (219 or 64.2%) or enter the recreational gambling groups with a CPGI score of zero (119 or 34.9%). Only three people from the non-gambling group score on the CPGI questions:

- All three respondents who scored on the CPGI responded to "have you felt guilty about the way you gamble", with one responding "Rarely" and two responding "Sometimes."
- One person responded "Sometimes" to "has your gambling caused you any health problems".
One person responded "Sometimes" to "has your gambling caused any financial problems for you or your household".

Of the 122 people who have started gambling, most of them (72) report playing one game, 34 report two games, 16 report three or more games. In terms of the games reported, the main games taken up are:

- Instant Scratch-its or lotto (77.9%)
- Art Union tickets (35.2%)
- EGM playing (13.1%)

See 0 for full details.

**Examination of change by Gambler group – Recreational gambling group**

A total of 1,269 people in the recreational gambling group from the *Queensland Household Gambling Survey 2003/2004* were interviewed in the *Communication Strategy Information - Baseline Survey*.

The recreational gambling group is the most stable group, with 1,077 (84.9%) people remaining in the recreational gambling group. Of the rest, the next largest group are the 90 people (7.1%) who have become joined the non-gambling group, while 87 (6.9%) have become entered the low risk gambling group and 15 (1.2%) entered the moderate risk gambling group.

Looking at the number of games played, 502 people (39.6%) have decreased their number of games played (including the 90 people now playing zero games), 429 people (33.8%) play the same number of games, and 338 people (26.6%) play more games than before.

In terms of individual games, the table in 0 shows that people who decrease their gambling group (from recreational to non-gambling) no longer participate in any gambling activities (as they must, by definition). There is little change in the percentages of people playing different games within the other two groups – those who remain in the recreational gambling group, and those who move into one of the “at-risk” groups. Of those in the recreational gambling group who remain in the recreational gambling group, the same percentage play each gambling activity, and those in the recreational gambling group who move to one of the “at-risk” groups have a similar proportion playing different games. People who move from recreational to “at-risk” gambling groups do not take up new gambling activity – the proportion of (for example) EGM players remains much the same before and after changing from recreational to at-risk.

What is observed, however, is that those who move into the at-risk group have a higher proportion playing many of the games before they moved into the at-risk group, while those who enter the non-gambling group have much lower proportion of players. This is especially noticeable with EGM play. Of people in the recreational gambling group who became non-gambling groups, 18% played EGMs in the earlier time period, in contrast to
60% of those who remained as recreational gambling group, and 80% of those who moved to the “at-risk” groups.

In relation to responses to the CPGI questions (0), those moving into the “at-risk” groups score positively on at least one CPGI question. The most commonly scored items are:

- bet more than you could really afford to lose (48.0%);
- felt guilty about the way you gamble or what happens when you gamble (37.3%); and
- go back another day to try to win back the money you lost (19.6%).

These three statements appear to mark the start of the transition from the recreational gambling into “at risk” behaviour.

**Examination of change by Gambler group – Low risk gambling group**

A total of 414 people in the low risk gambling group from the *Queensland Household Gambling Survey 2003/2004* were interviewed in the *Communication Strategy Information - Baseline Survey*.

Low risk gambling group appear more likely to change gambler group than remain in the low risk gambling group, with more than half (225 or 54.4%) moving to the recreational gambling group. Of the rest, 146 (35.3%) remain in the low risk group, and the remaining 43 (10.4%) enter the moderate risk or problem gambling groups.

Looking at number of games played, 128 (30.1%) of people report a decrease in the number of games played, 114 (27.5%) played the same number of games, and 172 (41.6%) reported an increase in the number of games played.

In terms of individual games (0), there are no clear trends in the proportions of the low risk group playing different games. This may be due to a greater diversity within this group, or it may simply be due to greater variation arising from the smaller number of people in the groups.

Changes in CPGI (0) are clearer. Members of the low risk gambling group who remain in this group have the same most common characteristics as those who move to low risk from recreational, scoring on the following questions:

- bet more than you could really afford to lose (55.5% before/58.9% after);
- felt guilty about the way you gamble or what happens when you gamble (29.5% before /22.6% after); and
- go back another day to try to win back the money you lost (23.3% before /21.2% after)

Those who move from the low risk group to the moderate or problem gambling groups score on the same three item to a more extreme degree:
• Bet more than you could really afford to lose (39.5% before /81.4% after);
• Felt guilty about the way you gamble or what happens when you gamble (39.5% before /86.0%); and
• Go back another day to try to win back the money you lost (23.3% before /51.2% after);

In addition, this group respond to a further three items:
• have you felt that you might have a problem with gambling (14.0% before /44.2% after);
• have people criticised your betting or told you that you had a gambling problem (7.0% before /23.3% after); and
• have you needed to gamble with larger amounts of money to get the same feeling of excitement (4.7% before /23.3% after)

Examination of change by Gambler group – Moderate risk gambling group

A total of 184 people in the moderate risk gambling group from the Queensland Household Gambling Survey 2003/2004 were interviewed in the Communication Strategy Information - Baseline Survey.

Similar to the members of the low risk gambling group, people in the moderate risk gambling group are more likely to change gambler group, with 102 (55.4%) changing to a lower risk gambling group. Of the rest, 56 (30.4%) remain in the moderate risk gambling group and the remaining 26 (14.1%) move into the problem gambling group.

Looking at the number of games played, 57 (31.0%) decrease the number of games played, 61 (33.2%) play the same number of games and 66 (35.9%) increase the number of games they play.

In terms of individual games (0), as for low risk gambling group, there are no clear trends.

In terms of CPGI items (0), those who move from moderate to problem gambling group score highly on almost all CPGI items – only the item “have you borrowed money or sold anything to get money to gamble” (7.7%) is agreed to by less than 50% of the sample.

Those who move from moderate risk to a lower risk level change their scoring of items downwards. Table 10 below gives the items in descending order of percentage of those agreeing in the latest survey, for those who have changed from moderate risk to a lower group. Interestingly, the items on which these “reformed” gamblers still score are those which mark the transition from recreational to at-risk gambling, indicating that the process seems to be operating in reverse.
Table 10. Changes in CPGI items for "reformed" Moderate risk gambling group

<table>
<thead>
<tr>
<th>CPGI Item</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you bet more than you could really afford to lose</td>
<td>81.40%</td>
<td>26.50%</td>
</tr>
<tr>
<td>Have you felt guilty about the way you gamble or what happens when you gamble</td>
<td>73.50%</td>
<td>25.50%</td>
</tr>
<tr>
<td>Did you go back another day to try to win back the money you lost</td>
<td>41.20%</td>
<td>6.90%</td>
</tr>
<tr>
<td>Have you felt that you might have a problem with gambling</td>
<td>36.30%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Have you needed to gamble with larger amounts of money to get the same feeling of excitement</td>
<td>31.40%</td>
<td>2.90%</td>
</tr>
<tr>
<td>Have people criticised your betting or told you that you had a gambling problem</td>
<td>25.50%</td>
<td>8.80%</td>
</tr>
<tr>
<td>Has your gambling caused any financial problems for you or your household</td>
<td>20.60%</td>
<td>2.00%</td>
</tr>
<tr>
<td>Has gambling caused you any health problems including stress or anxiety</td>
<td>12.70%</td>
<td>1.00%</td>
</tr>
<tr>
<td>Have you borrowed money or sold anything to get money to gamble</td>
<td>2.90%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

Examination of change by Gambler group – Problem gambling group

A total of 50 members of the problem gambling group from the Queensland Household Gambling Survey 2003/2004 were interviewed in the Communication Strategy Information - Baseline Survey.

Members of the problem gambling group were roughly even in terms of the number who stay in the same group or move to a lower risk group. Of the fifty in our sample, 24 (48%) changed to a lower risk gambling group, while 26 (52%) stayed as problem gambling group.

In terms of number of games played, 14 (28%) report a decrease in games, 18 (36%) play the same number of games, and the remaining 18 (36%) report an increase in the number of games played.

Due to the relatively small number of problem gambling group in this sample, trends in individual games (0) are unclear.

In terms of CPGI items (0), Table 11 below gives the items in descending order of percentage of those agreeing in the latest survey, for those who have changed from problem gambling group to a lower risk group. Percentages agreeing to each item resemble the percentages for low risk gambling group moving into the “at risk” group, implying that reforming problem gambling group, like reforming moderate risk gambling group, may be retracing their steps.
Table 11. Changes in CPGI items for "reformed" Problem gambling group

<table>
<thead>
<tr>
<th>CPGI Item</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you bet more than you could really afford to lose</td>
<td>91.70%</td>
<td>58.30%</td>
</tr>
<tr>
<td>Have you felt guilty about the way you gamble or what happens when you gamble</td>
<td>87.50%</td>
<td>54.20%</td>
</tr>
<tr>
<td>Have you felt that you might have a problem with gambling</td>
<td>83.30%</td>
<td>50.00%</td>
</tr>
<tr>
<td>Did you go back another day to try to win back the money you lost</td>
<td>95.80%</td>
<td>33.30%</td>
</tr>
<tr>
<td>Have people criticised your betting or told you that you had a gambling problem</td>
<td>62.50%</td>
<td>25.00%</td>
</tr>
<tr>
<td>Have you needed to gamble with larger amounts of money to get the same feeling of excitement</td>
<td>70.80%</td>
<td>20.80%</td>
</tr>
<tr>
<td>Has gambling caused you any health problems including stress or anxiety</td>
<td>58.30%</td>
<td>12.50%</td>
</tr>
<tr>
<td>Has your gambling caused any financial problems for you or your household</td>
<td>83.30%</td>
<td>12.50%</td>
</tr>
<tr>
<td>Have you borrowed money or sold anything to get money to gamble</td>
<td>37.50%</td>
<td>0.00%</td>
</tr>
</tbody>
</table>

Further Research

The analysis in this paper is only a first analysis on the available questions. Most of the questions in the two surveys were not asked in common so that a full longitudinal comparison is not possible. Nevertheless the characterisation of the different gambling groups and how they change would be of value. Of particular interest would be a search for predictors – variables which can be used to identify people who are likely to change group.

Conclusions

Although it was not set up as a longitudinal study, the Communication Strategy Information -Baseline Survey provides a useful opportunity to perform a limited longitudinal baseline analysis. This study shows us that the gambling population is variable, with large numbers of people moving between the different gambling groups.

This study also helps identify the problems that would accompany a fully fledged longitudinal gambling study. Recontact rates are a particular concern, especially for those people identified as problem gambling group. The high refusal rate and high non-contact rate for problem gambling group is another serious issue that would need to be addressed in an ongoing longitudinal study.
## Appendix 1: Disposition code by Source Period

<table>
<thead>
<tr>
<th>Final disposition</th>
<th>Source Period</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>April 04</td>
<td>October 03</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>1 No Answer</td>
<td>48</td>
<td>49</td>
<td>97</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.52</td>
<td>2.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Engaged</td>
<td>7</td>
<td>9</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.37</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Answering Machine</td>
<td>41</td>
<td>49</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.15</td>
<td>2.32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 Fax Machine</td>
<td>9</td>
<td>9</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.47</td>
<td>0.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Unable Household - away</td>
<td>44</td>
<td>23</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.31</td>
<td>1.09</td>
<td></td>
<td></td>
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<tr>
<td>6 Unable Household - illness</td>
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<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.10</td>
<td>0.14</td>
<td></td>
<td></td>
</tr>
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<td>7 Unable Person - Away</td>
<td>45</td>
<td>55</td>
<td>100</td>
<td></td>
</tr>
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<td></td>
<td>2.36</td>
<td>2.60</td>
<td></td>
<td></td>
</tr>
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<td>8 Unable Person - Illness</td>
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<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.52</td>
<td>0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Unable Person - Hearing</td>
<td>5</td>
<td>4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.26</td>
<td>0.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Unable Person - Other Disability</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.05</td>
<td>0.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Unable Person - Intellectual</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.00</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Out Of Scope - Business</td>
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<td>16</td>
<td>33</td>
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<td>0.89</td>
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<td>14 Out of Scope - Household</td>
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<td>35</td>
<td>66</td>
<td></td>
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<td>1.63</td>
<td>1.66</td>
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<td>9</td>
<td>13</td>
<td></td>
</tr>
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<td></td>
<td>0.21</td>
<td>0.43</td>
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<td></td>
</tr>
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<td>17 Unable Person - No Longer at this number</td>
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<td>189</td>
<td>296</td>
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<td></td>
<td>5.61</td>
<td>8.95</td>
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<td></td>
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<td>14</td>
<td></td>
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<td>0.24</td>
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</tr>
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<td>21 Soft appointment</td>
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<td>55</td>
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<tr>
<td>Final disposition (percent)</td>
<td>Source Period</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>----------------------------</td>
<td>---------------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>April 04</td>
<td>October 03</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>25 Completed</td>
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<td>1149</td>
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<tr>
<td></td>
<td>58.15</td>
<td>54.40</td>
<td></td>
<td></td>
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<tr>
<td>30 Partial - give ups</td>
<td>32</td>
<td>25</td>
<td>57</td>
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<td></td>
<td>1.68</td>
<td>1.18</td>
<td></td>
<td></td>
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<tr>
<td>32 Language Problems - Person</td>
<td>2</td>
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<td>3</td>
<td></td>
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<td></td>
<td>0.10</td>
<td>0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 Refused - household</td>
<td>6</td>
<td>10</td>
<td>16</td>
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<td>0.31</td>
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<td>42</td>
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<td>97</td>
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<td>51 Lost in Processing</td>
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<td></td>
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<tr>
<td>Total</td>
<td>1907</td>
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## Disposition Code by Gambler group

<table>
<thead>
<tr>
<th>Final disposition (percent)</th>
<th>Non-gambling group</th>
<th>Recreational gambling group</th>
<th>low risk gambling group</th>
<th>moderate gambling group</th>
<th>problem gambling group</th>
<th>Total</th>
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<tr>
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<td>8</td>
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</tr>
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<td>0.13</td>
<td>0.52</td>
<td>1.56</td>
<td></td>
</tr>
<tr>
<td>3 Answering Machine</td>
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<td>18</td>
<td>8</td>
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<td>2.37</td>
<td>2.10</td>
<td>2.34</td>
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<td>0.26</td>
<td>0.52</td>
<td>0.78</td>
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<td>5 Unable Household - away</td>
<td>14</td>
<td>39</td>
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<td>0.00</td>
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<td>7 Unable Person - Away</td>
<td>15</td>
<td>57</td>
<td>15</td>
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<td>100</td>
</tr>
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</tr>
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<td>0.39</td>
<td>0.26</td>
<td>0.78</td>
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</tr>
<tr>
<td>9 Unable Person - Hearing</td>
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<td>0.13</td>
<td>0.00</td>
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<tr>
<td>10 Unable Person - Other Disability</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
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<td>0.17</td>
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<td>0.26</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>12 Unable Person – Intellectual</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>1</td>
</tr>
<tr>
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**Appendix 1: Old & New Gambling Category, with Confidence Limits**

| Old Gambling Category | Gambling Category | Non-gambling group | | Recreational gambling group | | low risk gambling group | | | | Number | Per cent | 95% LCL | 95% UCL | Number | Per cent | 95% LCL | 95% UCL | Number | Per cent | 95% LCL | 95% UCL |
|-----------------------|------------------|-------------------|---|-----------------|---|-----------------|---|----------------|---|----------------|---|----------------|
| Non-gambling group    |                  |                   |   |                 |   |                 |   |                 |   |                 |   |                 |   |
|                       |                  | 320277            | 55.4 | 40.9 | 70.0 | 251451          | 43.5 | 28.8 | 58.2 | 1212**          | 0.2* | * 0.0 | 0.6 |
| Recreational          |                  | 260492            | 12.3 | 8.5 | 16.1 | 171834          | 2 | 81.1 | 75.2 | 87.0 | 128967 * | 6.0* | 2.3 | 9.9 |
| gambling group        |                  |                   |   |                 |   |                 |   |                 |   |                 |   |                 |   |
| low risk              |                  | 2145*             | 1.3* | 0.1 | 2.6 | 75175           | 48.1 | 38.6 | 57.6 | 63764           | 40.8 | 31.0 | 50.6 |
| moderate              |                  | 358***            | 0.6* | 0.0 | 1.4 | 13641           | 23.6 | 12.9 | 34.3 | 22719           | 39.4 | 24.1 | 54.6 |
| problem gambling group|                  |                   |   |                 |   |                 |   |                 |   |                 |   |                 |   |
| Total Qld             |                  | 583272            | 19.9 | 16.0 | 23.9 | 206556          | 6 | 70.6 | 65.2 | 75.9 | 217339           | 7.4 | 4.6 | 10.3 |

| Old Gambling Category | Gambling Category | Non-gambling group | | Recreational gambling group | | low risk gambling group | | | | Number | Per cent | 95% LCL | 95% UCL | Number | Per cent | 95% LCL | 95% UCL | Number | Per cent | 95% LCL | 95% UCL |
|-----------------------|------------------|-------------------|---|-----------------|---|-----------------|---|----------------|---|----------------|---|----------------|---|
| Non-gambling group    |                  | 4712**            | 0.8* | 0.0 | 2.4 | . | . | . | 577652 | 100. | 100. | 100. |
| Recreational          |                  | 11416*            | 0.5* | 0.0 | 1.1 | . | . | . | 211921 | 100. | 100. | 100. |
| gambling group        |                  |                   |   |                 |   |                 |   |                 |   |                 |   |                 |   |
| low risk              |                  | 15089*            | 9.6* | 4.4 | 14.9 | 108**           | 0.0** | 0.0 | 0.2 | 156282 | 100. | 100. | 100. |
| moderate              |                  | 16565*            | 28.6 | 13.2 | 44.2 | 4449*           | 7.7* | 2.6 | 12.8 | 57734 | 100. | 100. | 100. |
| problem gambling group|                  | 1430**            | 8.8* | 0.0 | 20.6 | 7138**          | 44.0* | 0.2 | 87.9 | 16201 | 100. | 100. | 100. |
| Total Qld             |                  | 49214             | 1.7 | 0.9 | 2.4 | 11696*           | 0.3* | 0.1 | 0.7 | 292708 | 100. | 100. | 100. |

**Gambling Category**

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## Changes in Games Played

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</tr>
<tr>
<td></td>
<td>Mean Mean Mean Mean Mean Mean N</td>
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</table>
|                  | old play new play old play new play old play new play  
|                  | Mean  Mean  Mean  Mean  Mean  Mean  N |
| Non-gambling group | Play on EGMs       | 0.0% 0.0% 0.0% 13.1% 341  
|                  | Play on Horse Racing | 0.0% 0.0% 0.0% 7.4% 341  
|                  | Play on Scratchies or Lotto | 0.0% 0.0% 0.0% 77.9% 341  
|                  | Play on Keno        | 0.0% 0.0% 0.0% 8.2% 341  
|                  | Play on Casino Table Games | 0.0% 0.0% 0.0% 3.3% 341  
|                  | Play on Bingo       | 0.0% 0.0% 0.0% 1.6% 341  
|                  | Play on Sports Betting | 0.0% 0.0% 0.0% 4.9% 341  
|                  | Play on Internet Gambling | 0.0% 0.0% 0.0% 3.3% 341  
|                  | Play on Card Games  | 0.0% 0.0% 0.0% 1.6% 341  
|                  | Play on Art Union Tickets | 0.0% 0.0% 0.0% 35.2% 341  
|                  | Play on Other Gambling | 0.0% 0.0% 0.0% 2.5% 341  
| Recreational gambling group | Play on EGMs       | 17.8% 0.0% 59.9% 54.8% 80.4% 78.4% 1269  
|                  | Play on Horse Racing | 18.9% 0.0% 38.6% 31.7% 48.0% 41.2% 1269  
|                  | Play on Scratchies or Lotto | 75.6% 0.0% 94.0% 93.1% 94.1% 92.2% 1269  
|                  | Play on Keno        | 17.8% 0.0% 43.6% 39.9% 55.9% 59.8% 1269  
|                  | Play on Casino Table Games | 5.6% 0.0% 9.4% 8.8% 9.8% 15.7% 1269  
|                  | Play on Bingo       | 3.3% 0.0% 7.9% 7.1% 16.7% 17.6% 1269  
|                  | Play on Sports Betting | 2.2% 0.0% 8.2% 7.2% 9.8% 11.8% 1269  
|                  | Play on Internet Gambling | 0.0% 0.0% 0.4% 0.7% 2.0% 2.0% 1269  
|                  | Play on Card Games  | 2.2% 0.0% 3.7% 2.8% 3.9% 7.8% 1269  
|                  | Play on Art Union Tickets | 33.3% 0.0% 50.3% 52.8% 43.1% 57.8% 1269  
|                  | Play on Other Gambling | 0.0% 0.0% 0.1% 0.3% 0.0% 0.0% 1269  
| Low risk gambling group | Play on EGMs       | 71.6% 66.2% 82.9% 78.1% 79.1% 81.4% 414  
|                  | Play on Horse Racing | 39.6% 36.9% 48.6% 52.1% 55.8% 69.8% 414  
|                  | Play on Scratchies or Lotto | 89.3% 89.8% 86.3% 93.8% 90.7% 93.0% 414  
|                  | Play on Keno        | 42.7% 44.9% 52.7% 61.6% 55.8% 72.1% 414  
|                  | Play on Casino Table Games | 11.6% 11.1% 15.1% 13.0% 16.3% 18.6% 414  
|                  | Play on Bingo       | 13.8% 12.4% 7.5% 8.2% 18.6% 20.9% 414  
|                  | Play on Sports Betting | 6.7% 7.6% 15.1% 17.8% 14.0% 23.3% 414  
|                  | Play on Internet Gambling | 0.0% 1.8% 2.1% 2.1% 0.0% 0.0% 414  
|                  | Play on Card Games  | 4.4% 3.1% 6.8% 8.2% 2.3% 9.3% 414  
|                  | Play on Art Union Tickets | 46.7% 46.7% 39.0% 50.7% 27.9% 53.5% 414  
|                  | Play on Other Gambling | 0.4% 0.0% 0.7% 0.7% 0.0% 7.0% 414  

NATIONAL ASSOCIATION FOR GAMBLING STUDIES
2005 (ALICE SPRINGS) CONFERENCE PROCEEDINGS
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<td>CPGI: have you felt that you might have a problem with gambling</td>
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<td>CPGI: have you needed to gamble with larger amounts of money to get the same feeling of excitement</td>
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<td>CPGI: did you go back another day to try to win back the money you lost</td>
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<td>CPGI: have you borrowed money or sold anything to get money to gamble</td>
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<td>CPGI: have you felt that you might have a problem with gambling</td>
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<td>9</td>
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<td>CPGI: has gambling caused you any health problems including stress or anxiety</td>
<td>0.0%</td>
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<td>CPGI: have people criticised your betting or told you that you had a gambling problem</td>
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<td>CPGI: has your gambling caused any financial problems for you or your household</td>
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<td>CPGI: have you felt guilty about the way you gamble or what happens when you gamble</td>
<td>0.0%</td>
<td>0.0%</td>
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<tr>
<td>low risk gambling group</td>
<td>CPGI: have you bet more than you could really afford to lose</td>
<td>Decrease</td>
<td>Same</td>
<td>Increase</td>
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<td></td>
<td>CPGI: have you bet more than you could really afford to lose</td>
<td>49.8%</td>
<td>0.0%</td>
<td>55.5%</td>
</tr>
<tr>
<td></td>
<td>CPGI: have needed to gamble with larger amounts of money to get the same feeling of excitement</td>
<td>7.1%</td>
<td>0.0%</td>
<td>11.0%</td>
</tr>
<tr>
<td></td>
<td>CPGI: did you go back another day to try to win back the money you lost</td>
<td>15.6%</td>
<td>0.0%</td>
<td>23.3%</td>
</tr>
<tr>
<td></td>
<td>CPGI: have you borrowed money or sold anything to get money to gamble</td>
<td>1.8%</td>
<td>0.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td></td>
<td>CPGI: have you felt that you might have a problem with gambling</td>
<td>2.7%</td>
<td>0.4%</td>
<td>7.5%</td>
</tr>
<tr>
<td></td>
<td>CPGI: has gambling caused you any health problems including stress or anxiety</td>
<td>1.8%</td>
<td>0.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td></td>
<td>CPGI: have people criticised your betting or told you that you had a gambling problem</td>
<td>8.4%</td>
<td>0.0%</td>
<td>6.2%</td>
</tr>
<tr>
<td></td>
<td>CPGI: has your gambling caused any financial problems for you or your household</td>
<td>2.7%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td></td>
<td>CPGI: have you felt guilty about the way you gamble or what happens when you gamble</td>
<td>26.7%</td>
<td>0.0%</td>
<td>29.5%</td>
</tr>
<tr>
<td>CPGI: have you bet more than you could really afford to lose</td>
<td>Moderate gambling group</td>
<td>Decrease</td>
<td>Same</td>
<td>Increase</td>
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<td></td>
<td>old score</td>
<td>new score</td>
<td>old score</td>
</tr>
<tr>
<td>CPGI: have you bet more than you could really afford to lose</td>
<td></td>
<td>81.4%</td>
<td>26.5%</td>
<td>80.4%</td>
</tr>
<tr>
<td>CPGI: have you needed to gamble with larger amounts of money to get the same feeling of excitement</td>
<td></td>
<td>31.4%</td>
<td>2.9%</td>
<td>33.9%</td>
</tr>
<tr>
<td>CPGI: did you go back another day to try to win back the money you lost</td>
<td></td>
<td>41.2%</td>
<td>6.9%</td>
<td>62.5%</td>
</tr>
<tr>
<td>CPGI: have you borrowed money or sold anything to get money to gamble</td>
<td></td>
<td>2.9%</td>
<td>1.0%</td>
<td>3.6%</td>
</tr>
<tr>
<td>CPGI: have you felt that you might have a problem with gambling</td>
<td></td>
<td>36.3%</td>
<td>2.0%</td>
<td>55.4%</td>
</tr>
<tr>
<td>CPGI: has gambling caused you any health problems including stress or anxiety</td>
<td></td>
<td>12.7%</td>
<td>1.0%</td>
<td>16.1%</td>
</tr>
<tr>
<td>CPGI: have people criticised your betting or told you that you had a gambling problem</td>
<td></td>
<td>25.5%</td>
<td>8.8%</td>
<td>51.8%</td>
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<tr>
<td>CPGI: has your gambling caused any financial problems for you or your household</td>
<td></td>
<td>20.6%</td>
<td>2.0%</td>
<td>19.6%</td>
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<tr>
<td>CPGI: have you felt guilty about the way you gamble or what happens when you gamble</td>
<td></td>
<td>73.5%</td>
<td>25.5%</td>
<td>76.8%</td>
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<td>Problem Gambling Group</td>
<td>Decrease</td>
<td>Same</td>
<td>Increase</td>
<td>All</td>
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<tr>
<td>CPGL: have you bet more than you could really afford to lose</td>
<td>91.7%</td>
<td>58.3%</td>
<td>96.2%</td>
<td>65.4%</td>
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<tr>
<td>CPGL: have you needed to gamble with larger amounts of money to get the same feeling of excitement</td>
<td>70.8%</td>
<td>20.8%</td>
<td>65.4%</td>
<td>53.8%</td>
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<tr>
<td>CPGL: did you go back another day to try to win back the money you lost</td>
<td>95.8%</td>
<td>33.3%</td>
<td>88.5%</td>
<td>88.5%</td>
</tr>
<tr>
<td>CPGL: have you borrowed money or sold anything to get money to gamble</td>
<td>37.5%</td>
<td>0.0%</td>
<td>38.5%</td>
<td>26.9%</td>
</tr>
<tr>
<td>CPGL: have you felt that you might have a problem with gambling</td>
<td>83.3%</td>
<td>50.0%</td>
<td>96.2%</td>
<td>92.3%</td>
</tr>
<tr>
<td>CPGL: has gambling caused you any health problems including stress or anxiety</td>
<td>58.3%</td>
<td>12.5%</td>
<td>76.9%</td>
<td>69.2%</td>
</tr>
<tr>
<td>CPGL: have people criticised your betting or told you that you had a gambling problem</td>
<td>62.5%</td>
<td>25.0%</td>
<td>73.1%</td>
<td>65.4%</td>
</tr>
<tr>
<td>CPGL: has your gambling caused any financial problems for you or your household</td>
<td>83.3%</td>
<td>12.5%</td>
<td>88.5%</td>
<td>92.3%</td>
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<tr>
<td>CPGL: have you felt guilty about the way you gamble or what happens when you gamble</td>
<td>87.5%</td>
<td>54.2%</td>
<td>92.3%</td>
<td>88.5%</td>
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ABSTRACT

In 2005, Anglicare Tasmania conducted research to look at the experiences of people who are living on low incomes in Tasmania and who have a problem with gambling. The research focused on low income Tasmanians not because they have a higher rate of problem gambling but because people on low incomes have very limited resources to cope with financial difficulties.

The research found people reporting high levels of relationship stress and breakdown, food shortages, general ill-health, extreme levels of debt and, in a few instances, attempted suicide or criminal behaviour due to escalating problems with gambling. Gambling expenditure need not be at a high level for serious consequences to be experienced by people on low incomes.

Although participants in this research had tried many and various ways to control their gambling, it was clear that in the current environment of industry self-regulation not enough is being done to protect consumers.

Introduction

“I probably realised [I had a problem] when I would go in and I could say I can afford to lose $20 that’s fine but then I would stay and keep waiting to regain what I lost. Then leaving, feeling really bad. It’s the light, the music, the jingles, the free drinks etcetera. It was one day when I put in $100, $120, and I thought ‘oh no what am I doing?’ Why didn’t I stop myself?” (Sonia, a participant in this research, who has a problem with poker machines)

Poker machines have changed the gambling landscape in Tasmania: since they were introduced in hotels and clubs in 1997, gambling expenditure has more than doubled and poker machines now account for almost half the total gambling expenditure (Tasmanian Gaming Commission, 2004). With this has come a growing concern about the negative impacts of gambling on individuals, their families and the community. While the majority of people who gamble are able to do so within their financial means, some...
people are unable to control their gambling and find themselves on a downward spiral of financial and personal relationship troubles.

Based on recent prevalence studies in Tasmania, census data from the Australian Bureau of Statistics and the Productivity Inquiry into Australia’s Gambling Industries, the author estimates there are more than 3,000 people in Tasmania who have a gambling problem and a further 15,000 to 30,000 people who may be experiencing hardships because of someone else’s gambling problem. These people could be partners, children, friends, parents or work colleagues of people who gamble.

State Government revenue stands at more than $80 million annually and this is set to further increase with the recent licensing of the internet betting exchange Betfair. The Government spends approximately $1 million annually on gambling-related services – the Break Even Network and community education. Including a prevalence study due to be conducted in 2005, a total of $307,435 will have been spent on research into gambling over the past 10 years.

Tasmania has a large proportion of people on low incomes. Despite solid economic growth in Tasmania over the past 10 years the state has the highest rate (38%) of households relying on Centrelink payments in Australia (27% nationally). Tasmania also has the lowest average earnings nationally and the highest proportion of long term unemployed. Over 20,000 households are in housing stress, where they are on the lowest 40% of incomes and paying more than 30% of their income on rent.

This research investigated how gambling affects people who are living on low incomes and who have a gambling problem. The low level of income for participants meant that losses of relatively small amounts of money could affect them quite significantly. The project also looked at the financial, social and emotional effects that gambling has on family members and in particular explored the relationships between financial and social disadvantage and problem gambling. Participants were also invited to explore issues of consumer protection for people who gamble.

Although participants reported that they spent money on a range of types of gambling, the most common form of gambling was electronic gaming machines, also known as poker machines or ‘pokies’. This research uses the terms pokies and poker machines since this reflects the terminology used by participants.

Methodology

A reference group, consisting of representatives of government, service providers and academics, was established to help guide the research.

Over a 6 month period, the author interviewed 35 people through focus group discussions or individual interviews held in the Tasmanian regional centres of Burnie, Launceston and Hobart. Of the participants, 29 people experienced difficulties with their own gambling and 6 people had a family member whose gambling was affecting them.
All participants were over 18; eligible for a Health Care Concession Card or Pension Concession Card; and experiencing problems with gambling. Family member participants had a partner or close relative who met the above eligibility criteria. Some participants were on moderate to high incomes before experiencing difficulties with gambling.

Focus groups were used in this research. The interactive narrative approach of facilitated focus group discussions ensures that a detailed and contextualized understanding of individual experiences is produced (de Laine, 1997; Rice & Ezzy, 1999). However, in addition to focus groups, individual one-to-one interview sessions were offered to reduce the impacts of the group process on the confidence of participants especially in terms of gender and cultural background (McMillan, pers. comm., 2004). One-to-one interviews also provided the opportunity for people to participate who were afraid their gambling problem would be ‘found out’ by other members of their community.

Recruitment of participants was through agencies that provide problem gambling, financial counselling and emergency relief services as well as through local community and health centres, neighbourhood houses, Centrelink, members of the Australian Hotels Association and newspaper advertisements in Tasmania’s three regional newspapers. Some participants heard about the research through word of mouth. A flier along with detailed information about the project was provided to service providers approximately 4 weeks prior to the scheduled focus group discussions. Fliers were provided a month later in order to recruit people for one-to-one interviews. Basic information about the project and eligibility requirements was provided to Centrelink, the Australian Hotels Association and through newspaper advertisements.

The author spoke to each participant prior to the focus group or individual interview to ascertain their eligibility and to answer any questions they had about the research. All prospective participants fitted the criteria and were invited to participate, although not all people who registered ended up attending their appointment. Each person who did not attend was phoned to see if they would like to reschedule; this resulted in a small number of subsequent one-to-one interviews.

A semi-structured interview schedule was used in both focus group and individual interviews to guide, but not restrict, discussions of personal experiences of gambling and the consequences for the participants’ health, fortnightly budget, workplace, and relationships with family and friends. Focus groups for people who gamble were held separately to those for family members. Participants were provided with an information sheet and consent form as well as a $30 supermarket voucher to reimburse them for costs encountered through participation. An Anglicare counsellor was available at each session. The discussions were audio-taped and transcribed and the transcripts subjected to thematic analysis to draw out key themes.

There are a number of limitations to this research, including:

- The research does not try to be representative of all people who experience problems with gambling and instead Anglicare deliberately sought the views of people on low incomes;
• It became evident that a number of people decided against participating because they found it difficult to talk about their gambling experiences either face to face with an interviewer or because of concerns about who else was in their focus group;
• Despite attempting to recruit using a wide range of strategies, the most effective means was through service providers and this resulted in an over-representation in the sample interviewed of people who had attended counselling at some stage;
• The research did not set out to identify problems and solutions specific to particular sections of the population who gamble;
• The research cannot be used to assess prevalence as it used qualitative methods; and
• No formal screen of gambling problems was conducted and instead participants self-selected for the project.

In reporting the discussions, the names of all participants, along with any identifying information, have been changed to assure anonymity.

**Demographic profile of research participants**

A total of 35 people participated in the interviews, comprising 29 people who have a gambling problem and 6 family members. Amongst the people who gamble, 14 were men and 15 women. Of the 4 male and 2 female family members, 4 people had a partner with a gambling problem, one a son and one a nephew.

Participants, including family members, were aged between 26 and 72 years of age, with a peak in the 40 to 50 year old age bracket. There were 17 participants who received the Disability Support Pension (DSP), 7 Parenting Payment, 5 Newstart Allowance, 2 Aged Pension, 3 workers and 1 who had no income.

The majority of participants lived alone (16) or with one other person (12). Of the 35 participants, 9 were in relationships with 10 participants separated or divorced. There were 10 single parents in the research and a total of 14 participants had dependent children.

The majority of participants (31) gambled on poker machines, with 20 people playing poker machines exclusively. Racing was the next most common form of gambling.

The majority of participants and the relatives of the family member participants had been gambling for more than 10 years with just 3 people gambling for less than 2 years. The majority of participants gambled more than once a week, with 4 participants gambling daily.

**Key findings**

This research found a number of things, some of which are as follows:
• The causes of gambling problems are complex and relate to social and personal factors;
Gambling problems have huge impacts for the individual’s health and finances and personal relationships and especially on the person’s family;

Poker machines had the biggest impacts for most participants;

Participants tried many different ways, personal and professional, to control their gambling but few things had helped them in the long term; and

The current consumer protection measures in Tasmania are inadequate and inconsistent.

**Impacts of gambling problems on families**

The impacts of gambling problems on families are broad ranging, complex and overwhelmingly destructive.

A common theme for participants was the increase in stress. Participants reported that they did not spend enough time with family and they argued with family over money. This is particularly hard for families on low incomes who are already struggling to buy food and pay bills.

Gambling problems often led to the breakdown of relationship between partners, parents, children, siblings. Participants reported that they no longer were seen as a brother or a child or partner but as the gambler. A key issue they identified was the breakdown of trust.

Participants who have children described neglecting their children because of problems with gambling and they felt intense shame about this. Many participants were children of someone with a gambling problem and they also described patterns of neglect when they themselves were children.

Josephine, a single mother with 2 dependent children who gambles on poker machines explained:

“As a result of all of this, I’ve lost 2 things that are very dear to me. [The first is] my 14 year old’s trust in me because I have gone through her bank account and cleaned it out. She earns her own money and I will go into her room when she goes to school and grab every cent I can and I am off down to those pokies again. She is frightened now and when she gets her money she goes out and spends it on whatever junk she can find because she knows mum will get it if she doesn’t. She can’t hide it, she can’t take it to school, she’s not allowed. And I have lost my own self respect. I want those things back and I am finding it very hard to earn those things back and I am trying my hardest.”

**Impacts of gambling problems on health**

This research found that the stress of losing money constantly and consistently led to poor health outcomes such as insomnia, headaches, stomach aches, ulcers, heart problems, poor nutrition, anxiety and depression. Some participants had contemplated or attempted suicide because of gambling debts, because they couldn’t tell their family of the money they had lost.
The negative links between gambling problems and poor health are especially difficult for people on low incomes who may already be feeling stress because of their small incomes and who may have difficulties accessing adequate health services.

Stress and other illnesses also affected family members who experienced similar ill-health.

Some participants had a medically diagnosed mental illness and they explained that the stress of gambling problems can lead to prolonged episodes of acute illness and an increased reliance on medication and health services. Participants with a mental illness found it particularly difficult to control their gambling.

Rex, who lives alone and spends the majority of his Disability Support Pension gambling on races and poker machines, told the author:

“My anxiety increases dramatically which means I will get to the stage where I need more visits to my GP or specialist…. Now that I am only on a Disability Support Pension if I bet before I do my shopping and pay my bills, I will have a miserable fortnight. It also affects my illnesses, it exacerbates them…. I have been down so low that I haven’t been able to meet my commitments and cut my allowance for food in half and virtually lived on nothing which has only made me worse…. I have lost a lot of weight as a result of not eating the proper food, not eating enough.”

Financial impacts of gambling problems

Although participants in this research said the thing they most enjoyed about gambling was winning, they said that after their first win they could not hold onto winnings. Anything they won they put back into gambling so they said that there was “no point to a big win”. Participants were not benefiting financially from gambling. Instead, participants described devastating negative impacts on their ability to work and on their own and families’ finances.

Some participants could not concentrate at work and the quality of their work suffered. Participants skipped work to gamble, left training sessions or left their desk 3 times a day to gamble. They found that the time passed very quickly at the gambling venue and the 30 minutes they had intended to spend had in fact been 3 or 4 hours. Some participants lost their jobs because of their gambling problems.

Participants often placed priority on their gambling over other expenditure. They would give up other things for gambling such as social activities, food, clothing and things for their children. They did not always have enough food and had difficulty paying their bills. Many participants needed emergency food vouchers that are given by charities for people in crisis.

Jackie, whose partner gambles on poker machines, explained:

“I will send [my partner] to the supermarket which is 2 minutes away to get a couple of things and he will come back 45 minutes later and say there was a big queue but I will
know where he has been….. When the money has been wasted, then [our children] have to miss out on things, even food. We have had to get food vouchers at times.”

All participants went into debt because of their gambling. Participants were on low incomes so even a low level of spending - as little as $30 per week or even in one case $15 per fortnight – spent on gambling caused them problems as they had so little disposable income. Other participants spent up to 40% to 90% of their fortnightly income on gambling.

Getting into debt had a financial ripple to family and friends. Participants used up any savings, sold any assets like washing machines and borrowed money from anyone they can, which increased strains on these relationships.

Participants had large credit card debts and large personal loans. Debt often led to them experiencing a housing crisis – the loss of their rental property because of not being able to pay rent. Due to their low income, participants had no buffer to protect them from their gambling losses. They ran out of people to borrow from, they ran out of assets to sell. They often gambled to repay debts but they found this only increased their problems. Participants said they were “losing the lot”, which often meant losing their family as well.

Ben, who gambles on poker machines and keno, lost his marriage and home and has been bankrupt for three years:

“I probably had about 9 personal loans at one time and about 10 credit cards… At a peak time personal loans were probably about $80,000, credit cards probably about $30,000 to $35,000… Because the creditors were after dollars, my car has been repossessed and my credit cards.”

The lure of poker machines

All participants that gambled on poker machines said that poker machines were particularly destructive to their lives. This included people who used to gamble on other forms and changed to poker machines or currently uses a number of forms of gambling.

In describing why they were attracted to poker machines participants mentioned the music, screen, free games, and constant small wins. They were attracted to the music played by the machines, which have been designed with winning sounds, losing sounds, waiting to put money in sounds. Participants liked the bright lights, bright colours and cute characters offered on the poker machine screen. They felt that the free games have been designed to be like a gift to the player to keep them there while the constant small wins reinforce the belief that a big win is just around the corner. Participants dreamt about the wheels spinning round and woke up with the poker machine music in their heads.

“I like the little sounds of the machines, I like visual things. I feel that they are friendly. The free games are a genius to keeping you there playing because it is like Christmas,
opening a package wondering what you are going to get,” explained Kathy, who gambles exclusively on poker machines.

Control of gambling

Participants acknowledged the negative consequences of gambling and had often and in many different ways tried to control their gambling. However they still felt out of control.

Attempts at personal control had limited success. They tried to budget, they cut up credit cards, they tried to limit alcohol, they tried to find hobbies to replace gambling, they tried to reduce the amount they bet each game or race or push of a button. One man described only placing $1 each way on horse races now but still feeling that his gambling could cause problems.

Participants had better success at control with the help of family and friends but this placed greater strains on these relationships. Family and friends were often the first port of call to help with the budget or to limit expenditure, they provided moral support or a sense of responsibility and they provided external money management by limiting access perhaps by hiding money or by controlling bank accounts.

Carla, who gambles on poker machines, receives help from her son:

“[My eldest child] is 17 years old and he pays me board. He doesn’t give it to me until the end of the day and he comes shopping with me to make sure I don’t go to the pokies and spend it. I haven’t been for the last 2 weeks and I don’t think I will today.”

About half the participants had sought professional help to assist with controlling their gambling, for example, counselling and group support, and these strategies had mixed success. Some participants had tried self-exclusion, also with mixed results.

“The first few weeks after I had myself excluded, I was tempted to revoke them. This was because I felt my freedom was taken away from me…. I went to group support for 12 months but in spite of this I revoked the self-exclusion and went back to gambling…. I thought I could be a social gambler if I revoked the self-exclusions. The first couple of times I was able to, but after that I fell back into the same pattern,” explained Patricia, who gambles on poker machines. She has self-excluded herself a number of times and two months before this interview she had taken out self-exclusion again.

The role of consumer protection

As well as individual responsibility to control gambling there is an important role for government and the gambling industry to play in reducing risks for consumers. However, since people who have gambling problems account for a large percentage of total gambling expenditure, any measures to reduce the harm they experience will reduce the income received for both government and industry.
As consumers, participants thought that the level of consumer protection offered to them was inadequate in many areas including:

- There are too many poker machines;
- They felt that there was too much advertising of gambling;
- Gambling technology encouraged gambling – for example, bet limits on poker machines are set by the technology not by what is best for the people gambling; and
- Venue environments encouraged gambling – for example, chairs are provided for their comfort at every poker machine, there is ready access to cash from Eftpos machines and venues have long opening hours. Participants also wondered if staff at venues could do more to curb excessive gambling, like they are required to do with alcohol.

Participants wanted changes in these areas to reduce the enticements to gamble.

“Well I usually drink when I am playing the machines and then I can sometimes lose track of how much I am spending and the staff keep serving drinks. However if someone is at the bar and they are drunk then they will be asked to leave, it’s different….. The employees that work at the places, they can see how much money people spend but they are not allowed to go up and say to someone, ‘do you think you have spent too much money?’” explained Douglas, who gambles on poker machines.

Recommendations to the Tasmanian Government

This research found that gambling problems have devastating impacts on low income Tasmanians and their families.

The State Government can easily increase the amount of money that it spends directly on programs and activities to reduce the negative impacts of gambling. Currently, less than 3% of total government revenue from gambling is spent on gambling related programs. Anglicare suggests that the Government spend a minimum of 5% of its gambling income in the next financial year and that this allocation increases annually. This is to continue the counselling, group support and community education programs but also to introduce new initiatives.

From the many concerns raised by participants, a number of recommendations were developed to try to improve consumer protection, three of which follow.

1. **To create a Gambling Consumers’ Ombudsman**

   The Ombudsman would work with government, industry and community to enhance and encourage consumer protection across all forms of gambling. The Ombudsman would make recommendations to the regulatory body.

2. **To conduct social and economic impact assessments for all new or extended opportunities, technology, designs, or licenses for all gambling forms**

   These impact assessments would be open for public comment and would be assessed by the Ombudsman. For example, the next negotiation for the statewide poker machine license and the possibility of changes to lotteries in Tasmania should be subject to
independent impact assessments, which would include the opinion and concerns of the community.

3. To improve consumer protection
The Gambling Consumers Ombudsman should work with other state bodies to trial consumer protection measures. The Ombudsman could also look to other areas, such as alcohol and tobacco, and follow public health leads in these areas. For example, advertising of gambling outside of venues could be banned just like it is for tobacco.

Problem gambling is a public health issue just like drinking and smoking, and it requires stronger public health messages about the negative impacts and greater resources to reduce harm.

“Oh, [gambling] has wrecked everything. My marriage has gone and I have been divorced since the end of 1999. We had properties together but they have gone and been sold off. I am currently bankrupt and have been for 3 years. It is pretty awful…. [My wife] had an inkling but it all came out in the divorce proceedings. We get along fine but the reality is the whole world I had is now gone,” concludes Ben, who gambles on poker machines and keno.

References

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WARNING SIGNS ON ELECTRONIC GAMING MACHINES: RECALL AND EFFECTS ON COGNITIONS AND BELIEFS

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ABSTRACT

This study examined the effectiveness of harm-minimisation messages by investigating recall and changes to irrational cognitions commonly found in gamblers. Undergraduate students (n=187) played electronic gaming machines (EGMs) with signs displayed as either static messages on sides of machines, or dynamic messages scrolling across screens. The content of messages was either the standard government-mandated message, or an informative message specifically targeting irrational cognitions. Following play, message recall and change in gambling-related erroneous perceptions and irrational beliefs was measured.

Dynamic messages were recalled significantly better than static messages. However, while players reported that dynamic messages affected cognitions during play significantly more than static messages, there was no significant difference in the overall reduction of irrational cognitions. Additionally, informative signs did not lead to a significant reduction in irrational beliefs.

Results of the study support dynamic displays as representing a method of improving recall for the content of responsible messages on EGMs. However, while a reduction in erroneous estimates of chances of winning were noted, it remains to be demonstrated that dynamic displays combined with simplified messages designed to increase knowledge and correct irrational cognitions can be translated into an effective harm-minimisation strategy that has an impact on actual gambling behaviour.

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Recall of Legislated Electronic Gaming Machine Signs & Irrational Cognitions and Beliefs Regarding Gambling

Problem gambling is a public health issue that has prompted calls for the introduction of responsible gambling strategies and harm-minimization interventions (Korn & Shaffer, 1999; Independent Pricing and Regulatory Tribunal, 2004). A national epidemiological survey (Productivity Commission, 1999) found that 80% of Australian adults have gambled at one time in their lives, of these approximately 330,000 (2.3% of the adult population) reported significant gambling-related problems, with an estimated annual net loss of $12,000. A further 140,000 (1.3%) were experiencing severe problems requiring assistance. Superimposed on financial burdens, many problem gamblers reported emotional difficulties with one in ten admitting contemplating suicide because of gambling (Productivity Commission, 1999).

The Productivity Commission (1999) identified electronic gaming machines (EGMs) as the primary form associated with excessive problem gambling in Australia with related social costs estimated to range between $1,369 and $4,250 million per annum (Productivity Commission 1999).

In addressing the issue of problem gambling, the New South Wales (NSW) government introduced legislation to reduce gambling-related harm in the community. Accordingly, the NSW Gaming Machines Regulation Act (2002) requires all EGMs to display information detailing probabilities of winning major prizes and the risk that excessive gambling may lead to problems. The intent is to provide gamblers with sufficient accurate information on how EGMs function, probabilities, and factors influencing outcomes in games of chance to allow full-informed choice in decision-making.

However, the basis for this legislation is not founded on empirical data supporting the effectiveness of such notices in influencing choice and gambling behaviour, but extrapolated to gambling from warning/information signs effective in other public health initiatives, for example, smoking and alcohol consumption.

Informed choice measures target all community members participating in gambling and, aim to increase individual awareness of risks and possible consequences of gambling. These measures endeavour to provide accurate, comprehensive, and easily available information to assist people in deciding if they will gamble, and, if so, how and how much they will gamble. According to the Productivity Commission (1999), the information contained in such measures might also serve to effectively reduce erroneous beliefs related to problem gambling.

To be an effective harm minimization intervention, it must be empirically demonstrated that players become aware of, understand, and recall messages displayed on mandated signs placed on EGMs, that erroneous or irrational cognitions are corrected, and that the recall of information and correction of erroneous cognitions ultimately alters gambling behaviour. This study is concerned with recall of information displayed on signs and changes in gambling-related cognitions.
Gambling and Irrational Cognitions

Given the importance of irrational thinking in maintenance of gambling (Walker, 1992; Gaboury & Ladouceur, 1989), it is imperative that players are provided with correct information on which rational decisions can be made. Using the thinking-aloud method (Gaboury & Ladouceur, 1987), Delfabbro and Winfield (2000) found that irrational cognitions constituted as much as 75% of all gambling-related thoughts during EGM play in standard gaming venues, and that irrationality was unrelated to monetary wins or losses but positively related to risk taking. These findings in an ecologically valid setting suggested irrationality was predictive of risk-taking behaviour and, according to the authors, raised the possibility that irrational thinking might contribute to maintaining gambling behaviour and development of problem gambling.

Empirical studies have demonstrated the presence of irrational cognitive schemas in gamblers including: overestimating probabilities of winning, illusions of control, superstitious rituals, and misunderstanding independence of chance events (Ladouceur, Sylvain, Boutin, Lachance, Doucet, Leblond, & Jacques, 2001). As random number generators determine outcomes of EGMs, with no possibility of manipulation by skill, such outcomes are mutually independent, and beliefs players can influence outcomes or events are related would be irrational.

The presence of irrational cognitions and beliefs during gambling has led to the development of several cognitive-behavioural models of gambling, emphasising the importance of irrational and erroneous cognitions in contributing to initiation, maintenance, and prolongation of gambling sessions, and eventually, to emergence of problem gambling disorders (Blaszczynski & Nower, 2002; Sharpe, 2002). Irrational cognitions and beliefs occurring during gambling may lead to greater expectancy of winning, acting to maintain and exacerbate gambling (Coulombe, Ladouceur, Deshairnais, & Jobin, 1992). Sharpe (2002) maintains that these irrational cognitions are triggered by cues associated with gambling, as a result of learning, and contribute to initiating new gambling sessions and prolonging current sessions. Furthermore, McCusker and Gettings (1997) argue these cognitive biases become automatic, leading to a cycle of loss of control over gambling behaviour. These theoretical models demonstrate the importance of cognitive biases and distortions, which interact with other factors leading to the development of problem gambling.

The substantive role of cognitive processes in the etiology of gambling behaviour is further evidenced in successful cognitive treatment interventions reducing pathological gambling behaviour (Ladouceur, et al., 2001). Empirical investigations reveal cognitive therapy, which aims to teach individuals to challenge irrational beliefs about gambling, is the most effective treatment in management of pathological gambling (Sylvain, Ladouceur, & Boisvert, 1997). These findings provide strong support for arguments that any initiative designed to target and correct irrational cognitions should be effective in promoting responsible gambling.

By addressing gambling-related irrational beliefs, harm-minimisation strategies may produce greater impact on problem gambling across a general population, rather than be...
limited by constraints of individual-based therapy. Such strategies may also reduce the incidence of problem gambling.

**The Effect of Gambling Information on Erroneous Estimations**

Research has demonstrated the effectiveness of exposure to accurate information on individual’s estimations of winning (Dixon, 2000). Following provision of inaccurate information regarding a player’s control over a game, specifically that people who win more pick their own numbers, subjects overestimated their objective probability of winning. In contrast, after correct, informative rules exposure that indicates that it does not matter who picks the numbers, subjects were much more accurate in estimations of winning, even correcting erroneous thoughts concerning probabilities prior to playing. Additionally, subjects did not play for as long following accurate-rules delivery compared to inaccurate-rules delivery. These results highlight the role of availability of accurate information in reducing cognitive bias and modifying behaviour.

As in cognitive therapy, targeting erroneous beliefs of gamblers with informative signs should represent a strategy that is effective in modifying irrational cognitions. Information concerning probabilities of winning should address erroneous beliefs in luck and overestimation of likelihood of winning. Similarly, by informing players that games cannot be influenced, illusions of control and superstitious beliefs should be reduced. Clarifying that every game is random and not related to previous outcomes should correct misunderstandings of independence of chance events including the gambler’s fallacy. Accordingly, from a public health perspective and consistent with the theoretical framework of conceptual models, displaying signs on EGMs containing messages informing players of these facts should increasing knowledge and understanding of probabilities of winning and reduce irrational cognitions during gambling and subsequently modify gambling behaviour.

However, the little empirical research on warning signs’ effectiveness shows that this may not be a useful method of modifying cognitions and behaviours. Research on alcohol and tobacco health warning labels (Krugman, Fox, Fletcher, & Rojas, 1994; Fischer, Krugman, Fletcher, Fox, & Rojas, 1993; Stockley, 2001) suggests warnings may increase consumer awareness of labels, but not changes in perceived risks of hazards involved or consumer behaviour. In light of empirical findings that warning messages are generally ineffective in modifying cognitions and behaviours, the expectation that similar signs are effective in the domain of gambling requires empirical testing.

To date minimal research has been conducted on the impact of responsible gambling messages for EGMs on gambling behaviour. Steenbergh, Whelan, Meyers, May, and Floyd (2004) investigated the impact of warning and brief intervention messages on knowledge of gambling risk, irrational beliefs and behaviour by comparing control subjects with those who received a brief audio-visual message explaining odds of winning roulette and risks associated with gaming prior to a session of play. They found audio-visual messages increased participants’ knowledge about odds and risks associated with gambling when questioned immediately after play, but did not produce significant cognitive or behavioural changes. A study investigating erroneous thoughts concerning independence of chance events during gambling, predicted that using signs to remind
gamblers about independence of chance events would reduce erroneous perceptions and motivation to continue playing (Benhsain, Taillefer, & Ladouceur, 2004). Exposure to signs displayed on computer screens resulted in reduced frequency of erroneous verbalizations and reduced continuation of play. However, while this study (Benhsain, et al., 2004) supports notions that addressing erroneous cognitions during gambling may reduce prolonged gambling behaviour, its support for the effectiveness of informative signs, as a responsible gambling strategy, is limited as the study lacks ecological validity and does not present a procedure that is realistically possible to implement in a typical gaming setting. Hence, while there is some support for using informative messages targeting irrational cognitions to correct erroneous perceptions and reducing prolonged play, further empirical studies are necessary.

Consistent with literature on tobacco and alcohol, studies show that individuals are aware of, and recall messages displayed on EGMs (Hing, 2003). In a survey designed to assess member awareness, perceived adequacy and perceived effectiveness of responsible gambling strategies in Sydney clubs, over 67% of respondents indicated they had noticed signs relating to chances of winning major prizes on EGMs. However, despite recognition of responsible gambling measures, these were shown to be generally ineffective in that results revealed that changes were made in only 44% of players’ thinking patterns and 12% of feelings about gambling, with 18% reducing frequency, 17% reducing duration of gambling and 19% reducing amount of money spent (Hing 2003).

Findings that current responsible gambling programs were inadequate to ensure informed consent of consumers or to reduce risks of problem gambling, including particular deficiencies in information about the nature of EGMs, led the Productivity Commission (1999) to recommend that the effectiveness of responsible gambling strategies should be evaluated with an evidenced-based approach. In response to this suggestion, a national audit of all responsible gambling programs required by legislation found there was no available evidence supporting the efficacy of responsible gambling measures in place (Hing, Dickerson, & Mackellar, 2001).

The Productivity Commission (1999) concluded there are grounds for increased disclosure of the likelihood of winning maximum prizes on EGMs and providing consumer information about outcome’s random nature, as well as possible changes to design of EGMs, to reduce problem gambling without overtly affecting recreational gamblers. Following a general failure of studies in demonstrating the impact and effectiveness of warning messages, research evaluating information displays must be undertaken.

**Design of Harm-Minimisation Messages**

Harm-minimisation strategies aim to promote responsible gambling without necessarily reducing gambling behaviour in itself, for example, by influencing decisions and changing irrational cognitions through the provision of relevant information to minimize excessive levels of expenditure. In order to evaluate the effectiveness and impact of warning signs, policy makers must determine what outcomes warnings are expected to achieve. As warnings contain information designed to increase the knowledge base of
readers or to correct erroneous or irrational beliefs, therefore, informing players through signage represents a realistically achievable outcome (Krugman, et. al., 1994). Once cognitions are modified, the next step in the empirical process is to evaluate the effectiveness of signs in changing actual behavioural patterns.

Consequently, an appropriate warning message for display on EGMs should have two aims. Firstly, concerning consumer awareness, to provide education about the true nature of games, how they work, and probabilities concerning winning. The second aim is prevention and/or modification of erroneous and irrational cognitions players have during gambling. However, research suggests simply informing players about risks associated with given behaviours, thereby increasing knowledge about risks, does not necessarily result in modifications of behaviour (Engs, 1989). Consequently, empirically based research and design methods must be considered in order to implement warning messages that exert positive impacts.

Research on the best design for successful warnings has yielded some empirically based guidelines for warning design. Initially, in order to have any impact, messages must attract attention (Stewart & Martin, 1994). Attention is necessary for comprehension of informational displays, and comprehension must occur for education as well as modification of thoughts and behaviours. Empirical and theoretical work emphasizes the frequency that people have thoughts about a behaviour affects that behaviour independently of associated beliefs (Borland, 1997). For example, the transtheoretical model of change (Prochaska & Diclemente, 1983) states that anything leading to an increase in frequency of relevant thoughts should be associated with increases in appropriate behaviour change. This has been supported empirically by findings that adults in a bar prompted to notice alcohol health warnings on drinks drank less than those not prompted, implying beneficial effects of noticing warnings (Malouff, Schutte, Wiener, Brancazio, & Fish, 1993). Extrapolated from these findings, increased conspicuousness of informative gambling warnings should stimulate more rational thoughts and less irrational actions during gambling behaviour.

To be noticed, warning messages must be capable of attracting attention in the presence of competing visual stimuli (Johnston & Dark, 1990). Different methods can be utilized to effectively attract attention, ensuring an impact of information in secondary displays. Motion cues appear to outperform static representations with regard to speed and accuracy of responses to displays in a screen’s periphery (Bartram, 2001). Studies have also demonstrated that warnings placed in central locations, where they attract attention, distracted consumers from processing surrounding product information and increased recall (Clark & Brock, 1994; Laughery, Young, Vaubel, & Brelsford, 1993).

A vital element of informational displays is comprehension, which is being able to remember and understand information conveyed at a later time. Comprehension of information in a multi-line paragraph format was found to be not significantly different from rapid serial presentations of constantly changing textual displays (Juola, Ward, & McNamara, 1982). Additionally, secondary animated displays in a dual-task situation did not significantly interrupt users from a primary-task, but still effectively communicated information, which supports the use of dynamic messages on EMGs as a harm-
minimisation strategy that does not reduce recreational gambling (McCrickard, Catrambone, Chewar, & Stasko, 2003).

The aim of the current study, therefore, is to investigate the differential extent to which gamblers recall informative and dynamic signs as compared to government mandated messages on EGMs, and the effectiveness of such strategies in modifying irrational cognitions related to probabilities of winning. The specific objective is to determine the extent to which gamblers can recall information freely and in response to prompted cues, and whether modifying content and mode of delivery of information contained in signs leads to improved recall and corrected irrational cognitions.

This research is highly significant, as it will inform policy decision-makers and key stakeholders on the degree that displayed messages form an effective harm-minimization intervention by increasing knowledge and correcting irrational cognitions in a manner that fosters informed choice.

The following hypotheses will be tested;
1. That informative messages specifically targeting irrational cognitions and beliefs will result in fewer irrational thoughts than standard harm-minimisation messages
2. That dynamic messages scrolled across the screen during play will result in:
   a. Greater recall of the message
   b. Fewer irrational beliefs than messages delivered on standard static displays.

**Method**

**Participants**

Participants were 187 undergraduate psychology students at the University of Sydney. Of the sample, 71.7% were female with ages ranging from 18 to 38 (M=19.22, SD=2.79), and 17 to 33 for males (M=19.91, SD=2.82). Slightly over half (57.2%) the participants reported EGM play in the past year.

**Procedure**

Three Mk VI Series 2 EGMs provided by Aristocrat Leisure Industries were used in the study. The NSW Liquor Administration Board (LAB) approved the use of these EGMs for research purposes under section 8(2) (b) of the Gaming Machines Act (2002). The EGMs were standard configuration machines with graphic designs including the display of payout schedules. One machine displayed a static message while the remaining two machines displayed modified signs according to the experimental conditions described below. Participants were randomly allocated to one of the four following conditions:
1. **Static standard message:** (n=45) One machine displayed a standard unmodified static sign containing information on chance of winning in the text and size of wording mandated by the Gaming Machines Regulation Act of 2002, Section 21, that is, “Your chance of winning the maximum prize on a gaming machine is generally no better than one in a million”. The message was printed on a sticker placed to the left of the screen, written in bold black font on a white background with a red BetSafe stop sign in the background.
2. *Dynamic standard message*: (n=47) A translucent sign scrolling across the screen at intervals of three minutes including the same information and wording as the standard static sign. The design of the display was based on empirically established guidelines for effective warning messages. The message appeared in a white-bordered box in bold yellow letters on a translucent grey background in the middle of the screen. It took 15 seconds to scroll across the screen allowing normal play to continue throughout.

3. *Static informative message*: (n=48) An informative message attempted to target irrational cognitions that occur during gambling. The text was worded to ensure all participants would understand it. It was presented in the same static display as the standard message but read, “The outcome of every game is randomly generated by the machine. It is not linked to previous results and cannot be influenced in any way by the machine or the player”.

4. *Dynamic informative message*: (n=47) A translucent sign identical to that in the dynamic standard condition with the content modified to contain the same wording as the static informative message.

In each testing session, three participants played the standard or one of two modified machines. Upon arrival at the experimental session participants completed a pre-test questionnaire assessing erroneous estimates of chances of winning and irrational beliefs regarding gambling on EGMs. Responses were rated on a 100-point visual analogue ratings scale.

Participants entered the room housing the EGMS and were instructed to play. Participants were not informed of the length of each session but continued to play for a period of ten minutes when instructed by the experimenter to cease. Participants were informed that no money was involved in gaming sessions. The LAB imposed this condition under its agreement to approve the possession of EGMs by the University, that is, the machines were not to be used for purposes of gaming. As recall of signs rather than arousal was the variable of interest, this limitation was not considered to influence the findings of this study. However, to enhance the simulation of gaming conditions, participants were encouraged to accumulate as many credit points as possible and to imagine they were in a real gambling situation playing for money.

Participants were requested to freely recalled information they saw displayed during play, and given two minutes to record written responses on a blank piece of paper. Participants then completed a memory and awareness task designed to specifically target the harm-minimisation message displayed on the EGM to assess the degree that information presented in this sign was recalled by participants and how it affected their play. Participants completed a post-test questionnaire designed to elicit erroneous estimates of chances of winning and irrational cognitions in relation to gambling on EGMs. This questionnaire was identical to the questionnaire administered prior to the commencement of the experiment. On completion of this task subjects were debriefed and were free to leave.
Measures

A series of measures were administered prior to and on completion of EGM play.

Erroneous Estimates and Irrational Beliefs Questionnaire:

Participants completed a visual analogue rating scale, with anchor points ranging from zero to 100%. The pre- and post-test questionnaire ascertained the number of erroneous estimates about chances of winning on an EGM and the number of irrational beliefs about gambling. Erroneous estimates were defined as those indicating an incorrect knowledge of odds of winning, while irrational cognitions were those that reflected the participant's failure to comprehend that outcomes are randomly generated and not subject to player control. Four types of erroneous estimates were examined including the perception of the probability of winning, losing, and breaking even as well as the probability of winning the maximum prize. Five types of irrational cognitions were targeted based on previous research (Langer, 1975; Walker, 1992; Delfabbro & Winefield, 2000; Benhsain, et. al., 2004). These included; illusions of control, superstitious beliefs, independence of chance events, gambler’s fallacy, and misunderstanding of random outcomes. Erroneous and incorrect responses received a score of one, while correct and accurate responses received a score of zero. This resulted in a total score for each participant before and after a session of play ranging from zero to four for erroneous perceptions and from zero to five for irrational beliefs. Erroneous estimates of chance and irrational cognitions were assessed before and after play.

Free Recall:

Participants were given blank paper and asked to write down any information they recalled displayed on the machine. Responses received a score of two if participants endorsed anything relating to chances of winning or outcomes of games indicating they freely recalled the harm-minimisation message, otherwise a score of zero was given.

Cued Recall:

Participants were asked if they remembered the harm-minimisation sign and its content. They were given a score of one for each positive response resulting in a score ranging from zero to two for cued recall. Following this they indicated on scale from zero to 100 how confident they were that they remembered what the sign said. When asked recall the contents of the sign, participants were given a score of one if they partially recalled the sign, and scored two for accurate recall. They were also asked whether this sign had any affect on thoughts during play and on future play sessions. Each positive response received a score of one. This questionnaire included both qualitative and quantitative information.

Statistical Analyses

The dependent variables were erroneous estimates concerning probabilities of winning, and irrational beliefs about level of player control, impact of past spins on future spins and randomly generated outcomes with cognitions measured before playing and after playing an EGM. Free and cued recall and accuracy and confidence of recall of the harm-
minimisation sign and its affect on thoughts were measured. The two independent variables manipulated between-subjects were the content of the harm-minimisation message and mode of presentation. Independent samples t-tests were used to determine significant differences between groups.

Results

Message Content and Change in Erroneous Estimates and Irrational Cognitions

The number of erroneous estimates reduced across all groups, but there was no significant difference in change between those exposed to standard messages (M=-0.50, SD=1.33) or informative messages (M=-0.21, SD=1.23, t(185)=-1.547, p=0.12).

Over the whole sample there was no change in numbers of completely rational responses following play with 98.9% (n=187) of participants demonstrating at least one irrational belief both before and after EGM play. While all participants had a mean decrease in irrational thoughts, an independent samples t-test found no significant difference in changes in irrational cognitions following EGM play between standard (M=-0.24, SD=1.06) and informative messages (M=-0.18, SD=1.16, t(185)=-0.37, p=0.71).

Message Display and Change in Erroneous Estimates and Irrational Cognitions

Analysis of erroneous estimates following exposure to harm-minimisation messages resulted in non-significant differences between dynamic (M=-0.29, SD=1.32) and static (M=-0.42, SD=1.25) modes of display (t(185)=-0.70, p=0.48). While, the mean number of irrational thoughts decreased for participants in static (M=-0.20, SD=1.16) and dynamic conditions (M=-0.21, SD=1.07), the difference between groups was non-significant (t(185)=0.05, p=0.96).

Message Content and Recall

As displayed in Figure 1, the extent of players’ recall of harm-minimisation notices was measured in three ways; free recall, cued recall, and accuracy of cued recall. Independent samples t-tests showed no significant difference between mean numbers of participants freely recalling the content of informative (M=1.09, SD=1.00) and standard messages (M=1.00, SD=1.01, t(185)=-0.64, p=0.52). Similarly, there was no significant difference in cued recall of standard (M=1.22, SD=0.92) and informative messages (M=1.03, SD=0.87, t(185)=1.42, p=0.16). Message content also had no significant effect on accuracy of recall for standard (M=0.74, SD=0.68) or informative messages (M=.71, SD=0.77, t(185)=0.32, p=0.75). Confidence of recall was not used to assess recall extent because it was a subjective measure of player perception. However, participants were significantly more confident that they recalled what the standard harm-minimisation sign said (M=51.82, SD=39.81) than the informative sign (M=34.19, SD=33.19, t(185)=3.29, p=0.001).
Figure 1. Mean score for free recall, cued recall, and accuracy of cued recall for participants, n = 187 undergraduate psychology students, in the standard and informative message content conditions, following EGM play.

Message Display and Recall

Figure 2 displays the participants’ recall of harm-minimisation notices. The dynamic mode of delivery resulted in messages being recalled significantly more often than static message displays. More participants freely recalled dynamic messages (83%, n=94) and did so to a significantly greater extent (M=1.66, SD=0.76) than static messages (M=0.43, SD=0.83), freely recalled by only 21.5% (n=93) of participants, (t(185)=-10.62, p=0.01). Cued recall with dynamic delivery (M=1.57, SD=0.74) was also significantly greater than for static notices (M=0.67, SD=0.81, t(185)=-7.99, p=0.01). It was also found that participants recalled harm-minimisation signs significantly more accurately when presented as a dynamic display (M=1.02, SD=0.66) than as a static sign on EGMs (M=0.42, SD=0.66, t(185)=-6.24, p=0.01). Furthermore, participants demonstrated significantly greater confidence in their recollection of the message content for the dynamic display (M=60.69, SD=34.53) than the static display (M=24.84, SD=31.49, t(185)=-7.42, p=0.001).

Figure 2. Mean score for free recall, cued recall, and accuracy of cued recall for participants, n = 187 undergraduate psychology students, in the static and dynamic message display conditions, following EGM play.
Quantitative Effect of Harm-Minimisation Message on Thoughts During Play

Participants were asked if they thought the message relating to chances of winning or outcomes of the game had affected their thoughts during play. There was no significant difference in reported effectiveness of the notice between standard and informative messages. However, significantly more participants (39.4%, n=94) reported the message affected thoughts in the dynamic condition (M=0.39, SD=0.49) than the static condition (22.6%, n=93, M=0.23, SD=0.42, t(185)=-2.51, p=0.02). Additionally, only 26.7% (n=45) participants in the standard static condition reported this sign affected their thoughts.

Qualitative Effect of Harm-Minimisation Message on Thoughts During Play

Across all participants, 31.2% (n=187) indicated the harm-minimisation message affected their thoughts during play and, when asked to describe in what ways their thoughts had been affected, seven major types of responses were given. The most common response was the sign had directed thoughts towards the very low chances of winning, particularly of winning the maximum prize. This response, given by 43.9% (n=98) of subjects influenced by the sign, either confirmed a pre-existing belief or was a new realisation to players. The second most frequent response, indicated by 20.4% (n=98) of these subjects, was that, had they not been in experimental settings, they would have, at the very least, thought about ceasing play. These responses included thoughts that it was pointless playing an EGM and it was a waste of money. The notice made 15.3% (n=98) of players influenced by the sign think about the randomness of the game and how it is all determined by chance so there was no point in attempting strategic play. Player’s also indicated their strategy was affected by signs, specifically 12.2% (n=98) changed how much they were betting. Two equally likely ways in which messages affected thoughts were that players concentrated on trying to win small amounts rather than the maximum prize, and, similarly, 10.2% (n=98) of respondents claimed they did not believe the sign and thought it was understating their chance of winning. Finally, 3.1% (n=98) of players who responded to this question stated the sign had distracted them from playing.

Effect of Harm-Minimisation Message on Future Play

While 36.9% (n=187) of all participants expected the sign to affect future play, there appeared to be no significant effect of message content or mode of display on future effectiveness of messages.

Recall and Cognitions Following a Session of Play on an EGM

An analysis of all measures given to participants revealed some interesting findings in addition to those directly examined by our hypotheses. Results showed that 14 participants recalled the standard harm-minimisation message even though it had not been displayed on their machine as they viewed the informative message. Of these subjects, 12 had prior experience playing EGMs and the two inexperienced players stated they had seen the sign displayed on machines adjacent to theirs during play.
Of subjects in the standard message condition who recalled the message content with a reasonable degree of accuracy, 37.0% (n=61) still responded erroneously to chances of winning the maximum prize immediately following writing these chances were approximately one in a million. Additionally, 19.3% (n=187) of participant’s irrational cognitions and beliefs increased following a session of play, and 14.4% (n=187) had an increase in numbers of erroneous estimates. Of these participants, the majority lost money overall during the session, and represented all conditions equally well.

Diametrically opposed to these findings, 10.3% (n=187) of participants stated having no recollection of seeing the harm-minimisation sign, or what it said, yet their responses demonstrated a reduction in erroneous estimations. Similarly, 7.6% (n=187) of participants with no cued recall of the sign had a reduction in irrational cognitions. Of these groups, the ratio of standard to informative message condition was approximately 9:5 and there was no difference in EGM experience between those in the standard and informative conditions. Furthermore, over three-quarters of each group were in the static condition.

**Discussion**

Results supported our hypothesis that dynamic signs would be recalled to a greater extent than static signs, but informative and dynamic signs did not reduce irrational cognitions more than standard and static messages.

As hypothesized, participants had significantly greater free and cued recall, and accuracy of cued recall, as well as confidence in cued recall for dynamic than static messages. This implies dynamic displays attracted attention more effectively than static signs and, as well as noticing signs, players were able to accurately and confidently recall the information presented, indicating higher levels of comprehension and awareness of the information contained in the sign. Therefore, as hypothesized, the dynamic mode of display should be utilized for an effective responsible gambling strategy as it fulfils the primary goals of effective harm-minimisation signs.

The introduction of a more informative message, specifically targeting common irrational cognitions, was hypothesized to reduce irrational beliefs more effectively than the standard harm-minimisation message. However, it was not significantly more effective than standard messages in reducing irrational cognitions. Furthermore, participants were more confident they recalled messages on standard signs said. There was a tendency for erroneous estimations to be reduced more by the standard than informative sign, suggesting the standard message content may increase player’s knowledge of accurate chances of winning.

Even when the message attracted more attention and was recalled significantly better, as in the dynamic condition, this did not result in greater reduction in erroneous estimations or irrational cognitions. This was contrary to our hypothesis that a sign attracting more attention and that was better recalled would result in significantly greater reductions in irrational cognitions.
The harm-minimisation strategies used in this study were consistent with the recommendations of the Productivity Commission (1999) and the AGC (2001). They provided accurate and easily accessible information to assist all players in gambling-related decisions, without overtly affecting recreational gamblers, with the aims of increasing knowledge of correct probabilities and how outcomes are determined, and modifying irrational and erroneous cognitions. The significantly greater levels of recall of the dynamic message than the standard message, as hypothesized, implies the sign effectively captured attention in the presence of multiple sources of competing audio and visual stimuli, a critical step for informed choice measures to have any impact (Stewart & Martin, 1994). Furthermore, it allowed the primary task of EGM play to continue as only an insignificant minority of participants reported signs distracted them from play.

Mean recall scores for static messages were all less than one, indicating players failed to demonstrate any awareness of signs in this condition. This was significantly lower than mean scores for dynamic displays, which were all greater than one, demonstrating dynamic displays are significantly more effective as a harm-minimisation strategy, as signs are attended to and recalled implying increased comprehension of the information presented.

While the dynamic display did not significantly reduce irrational thoughts, players reported that this display affected their thoughts during play significantly more than the players exposed to static messages. This confirms the dynamic display was attended to more than the static display, as a sign must be noticed for it to affect thoughts. Furthermore, it demonstrates greater message comprehension as players read the sign, remembered the information, and it stayed in their minds long enough to consciously alter cognitions. Therefore, based only on player reports, the dynamic harm-minimisation sign was significantly more effective in modifying cognitions than the static sign.

Player’s qualitative responses to how the harm-minimisation sign affected their thoughts demonstrate its partial effectiveness as an informed choice measure. Firstly, both experienced and inexperienced players recalled the sign demonstrating the sign appears to targets all community members participating in gambling. The sign also made many subjects question their decision to gamble, one of the aims of informed choice approaches. The amount player’s bet was affected by the sign, again fulfilling the goals of informed choice by providing players with information to assist them in deciding how to gamble.

Although the harm-minimisation messages fulfilled some of the goals of informed choice measures, as in other public health initiatives such as smoking and alcohol consumption (Krugman, et. al., 1994; Parker, Saltz, & Hennessy, 1994), harm-minimisation signs did not effectively modify gambling-related cognitions. For all conditions, the accuracy of cued recall was lower than the participant’s claim of cued recall, suggesting they were aware of the message, but could not precisely recall its specific content. This limits the player’s comprehension of the sign and, the impact it may have.

However, results reveal that conscious recall of harm-minimisation messages is not absolutely necessary for them to have an effect. A conspicuous proportion of participants reported no recall of the sign in response to specific questions designed to cue player’s
memory, yet, still demonstrated a reduction in levels of erroneous estimations and irrational beliefs. There was a noticeable difference in the mode of display, as over three-quarters of all participants who showed this phenomenon were in the static condition. This suggests that static messages, while being recalled significantly less than the dynamic messages, were still, to some extent, effective in modifying cognitions, even if they were not consciously attended to and recalled by players. This response occurred more often in the standard than informative condition, but cannot be attributed to seeing the standard sign on EGMs during prior sessions of play as it was found in as many experienced as inexperienced players. It is possible the shorter standard message was easier for players to comprehend to some extent than the more complicated and lengthier informative message. However, as both erroneous estimations and irrational beliefs were altered, both the informative and standard messages must have affected players. These findings are significant as they demonstrate that even without specifically or consciously attending to harm-minimisation signs, the message may still affect players. However, it is also possible other aspects of EGM play reduce irrational and erroneous cognitions.

This study did not measure frequency of irrational thoughts during EGM play, nonetheless, each type of irrational belief was found in over 50% of all participants, and 98.9% had at least one irrational belief before and after play, suggesting a high level of gambling related irrational cognitions amongst players. Thus, the results of the present study were generally consistent with those of previous studies (Delfabbro & Winefield, 2000) that used the speaking-aloud method to observe gambling-related cognitions.

All groups showed a reduction in mean numbers of erroneous estimations concerning chances of winning, and levels of irrational thinking, however, players still demonstrated high levels of erroneous and irrational responses following play. The small changes in these cognitions, even when players recalled and comprehended the signs, exhibit the robust nature of irrational and erroneous thoughts in gamblers. Furthermore, they emphasise the limited effectiveness of harm-minimisation messages.

While there was no significant reduction in irrational cognitions caused by either content or mode of message display, some aspect of EGM play that incorporated exposure to harm-minimisation signs in the present study, reduced irrational cognitions. Overall, this is a positive result from a responsible gambling perspective, suggesting harm-minimisation initiatives have some affect on irrational thoughts, but additionally it demonstrates further investigation into all elements of EGM play is needed to clarify exactly how cognitions are affected.

While all participants showed a mean decrease in erroneous estimations and irrational beliefs, it was noted that despite the harm-minimisation messages, a noticeable proportion demonstrated increases in these cognitions indicating some elements of EGM play contribute to such cognitions. Illusions of control may be fostered and encouraged by messages appearing on EGMs suggesting player skill was responsible for any wins. While this increase in irrational thoughts cannot be accounted for by player wins as the majority of these participants lost money overall, as even small wins resulted in music, animated graphics, and congratulatory and encouraging messages on EGMs, they may overshadow any losses causing players to believe they were winning. This may have encouraged chances of winning being overestimated and increased irrational cognitions,
particularly illusions of control encouraged by the machine, and superstitious beliefs due to illogical associations between actions and perceived wins.

The achievements of cognitive therapy in treating pathological gambling (Sylvain et. al., 1997) supports the effectiveness of initiatives targeting irrational cognitions, nevertheless, the successful reduction of irrational cognitions was not accomplished by the harm-minimisation strategy used in this study. This may be due to the discrepancies between personalized, individual cognitive therapy sessions and strategies attempting to impact on a much wider population. Furthermore, the informative message was designed to specifically target irrational cognitions commonly found in all gamblers with the aim of increasing available accurate information to assist people in making decisions about gambling, to reduce problem gambling, without explicitly affecting recreational gamblers. It was not attempting to treat problem gamblers, so would not be expected to produce the same reduction in irrational thoughts.

However, the informative message was not significantly more effective in reducing irrational thoughts than the standard harm-minimisation message. As the standard sign showed a tendency to reduce erroneous estimations to a greater extent than the informative sign this may imply that correcting erroneous estimations by informing players of correct probabilities of winning is easier than correcting irrational beliefs that may be firmly entrenched and maintained even when exposed to contrary information provided by the informative message.

The finding, that the informative message was not more effective in decreasing irrational cognitions may also be accounted for by the greater complexity of the informative message, ambitiously attempting to target five separate irrational beliefs. In contrast, the standard message targeted only one erroneous estimates concerning chances of winning the maximum prize. Players were significantly more confident they recalled the content of the standard message than the more complicated informative message, indicating standard messages were easier to recall and comprehend than informative messages. Furthermore, as there was a tendency towards greater reduction of inaccurate estimations for standard messages, it is possible that, as well as being recalled and comprehended, the simple information contained in the standard sign affected players’ thoughts. This is confirmed as the most commonly reported effect of the harm-minimisation message was to make players realize their chances of winning, particularly the major prize, were very low, verifying the simple message of standard signs was recalled and comprehended to affect cognitions in this way.

The third most common way the sign affected players was to make them think about the random nature of outcomes. This was the first piece of information presented by the informative sign suggesting a primacy effect; that the information presented at the beginning of the informative display had the greatest effect on thoughts. These findings suggest that simplifying the harm-minimisation message to target only one erroneous estimation or irrational belief may increase recall and comprehension of the information and its impact on cognitions.

Our results provide some support for previous findings (Dixon, 2000) indicating that, as proposed by the Productivity Commission (1999), increased disclosure of likelihood of
winning prizes should increase knowledge of odds of winning allowing greater informed choice. Players had greater confidence they recalled the information in standard messages, and there may be a tendency for standard messages to reduce erroneous estimations. However, the standard harm-minimisation sign only provided information about the probabilities of winning the maximum prize, demonstrated by player reports of the sign having the effect of making them try to win smaller prizes. To result in a greater reduction of all erroneous estimations, a strategy should be devised providing greater information about odds of winning all prizes.

Comprehension and compliance is higher for salient warnings (Wogalter, Conzola, & Smith-Jackson, 2002) and participants may have thought the harm-minimisation sign was not personally relevant but meant for problem gamblers. This may be especially true for participants who had never played an EGM before and so would not consider themselves as needing help to gamble responsibly. The design of the static sign, including the Betsafe logo in the background, was similar to the sign advertising the adverse consequences of gambling and G-line, a service that may be perceived to be primarily for problem gamblers. This may increase participant’s disregard for the message content, which was not believed to be personally relevant.

Results showed some players did not believe the information contained in the harm-minimisation message. This is an important finding because it demonstrates players successfully recalled and comprehended the sign, but disregarded it as untrue, dramatically impeding its effectiveness. Responses conveying this belief primarily indicated player’s believe their personal chances were greater than as stated by the standard sign, indicating deeply held irrational and erroneous beliefs. Players also stated they did not believe events were random and one player accused the gambling industry of propaganda. These responses imply that signs are not judged as credible, however, this may be corrected by citing an official source for the information provided.

There was an additional discrepancy between players being aware of, and even accurately recalling information, and still having irrational beliefs and erroneous estimations. Similarly to research on other warning signs (Dwyer, 1978; Beltramini, 1988), results showed players could accurately recall chances of winning the maximum prize, and still overestimate this probability. This finding is highly significant in demonstrating dissociation between thoughts about gambling and reality, players can be aware of accurate information without it affecting their erroneous estimations. It suggests this may also be true for the information contained in the informative message, which may be accurately recalled without reducing irrational cognitions. Therefore, effective harm-minimisation strategies must not only be accurately recalled, but must find a way to overcome these barriers to have any effect on the robust and deeply entrenched irrational cognitions regarding gambling.

This study did not produce the same reduction in erroneous estimations of winning and irrational cognitions as previous studies on responsible gambling measures (Dixon, 2000; Steenberg, et. al., 2004; Benhsain, et. al., 2004). However, the responsible gambling strategies employed in this study are far more realistic for possible implementation in real gambling situations. Dynamic messages scrolling across EGM screens do not interfere
with gambling activity and occur constantly while the machine is switched on, ensuring anyone playing the machine for longer than three minutes will see them.

In comparison to current responsible gambling strategies in Sydney clubs (Hing, 2003), harm-minimisation signs in the current study changed a lower reported percentage of player’s thoughts about gambling in both the static and dynamic conditions. The finding that a lower percentage of participants reported that government-mandated standard static sign affected their thoughts in this study than in Hing’s (2003) study of regular gamblers indicates that the experimental settings lowered the accuracy of results. Therefore, the current study is highly significant as it demonstrates the effectiveness of dynamic signs, in experimental settings, which are practical and possible to implement as responsible gambling strategies, compared to government mandated harm-minimisation signs, in improving recall of information presented and fostering informed choice. As the accuracy of results is limited by methodological problems, the harm-minimisation measures in this study may be significantly more effective in club settings.

The conclusions that can be drawn from this study are limited by certain methodological problems. Firstly, pursuant to section 8(2)(b) of the Gambling Machines Act (2002), to be approved for use for research purposes, any devices for inserting or removing money from the EGM were disabled, meaning participants could not play with any currency. While this should not have had a major effect on play, it may have affected cognitions. As participants were not using their own money, they may not have been concerned with thinking and playing in a rational manner. This may have caused harm-minimisation messages to be ignored, or not considered relevant. Methodological limitations may also account for increases in irrational cognitions. To allow participants to play without inserting any credits, EGMs contained sufficiently high credits ensuring that even large losses would not significantly reduce the credits displayed. Consequently, players may have been unaware of the amount they lost, particularly as credits were not always presented in an easily interpretable currency format. Therefore, any irrational beliefs and erroneous estimations of winning that may have been disconfirmed by losses remained unaffected, as players were not concentrating on money lost.

The restrictions of using experimental settings may also limit the extent of harm-minimisation signs effectiveness as only immediate recall and cognitive change was measured. The novelty of dynamic signs for experienced and inexperienced players may have increased the attention the signs were given, an effect that may decrease over prolonged exposure. Furthermore, as mentioned previously, signs not specifically attended to during play sessions may still be recalled and comprehended at a later stage.

These limitations may be overcome with longitudinal empirical investigation measuring recall of the harm-minimisation sign and changes in irrational beliefs and erroneous estimations with regular gamblers in a club setting. Testing the effectiveness of dynamic messages in this way would increase validation of this method as an appropriate harm-minimisation strategy.
Conclusion

This study is significant as it provides empirical data describing an effective harm-minimisation strategy for EGMs that is realistically possible to implement in club settings. Findings that participants can recall dynamic harm-minimisation messages to a significantly greater extent than government mandated static messages on EGMs demonstrates the increased value of this approach as a responsible gambling initiative. Participant’s successes at free and cued recall tasks, increased accuracy of and confidence in recall following play with dynamic messages imply this sign made significant improvements in capturing and maintaining attention as well as efficiently communicating information, resulting in greater comprehension of the message. These highly significant findings establish that dynamic displays provide an effective mechanism for allowing informed choice in responsible gambling strategies.

While the dynamic method of delivery resulted in significantly greater perceived effectiveness in altering cognitions during gambling, these effects did not cause greater reductions in mean measured levels of erroneous estimations or irrational cognitions following play for dynamic messages. Furthermore, the informative message, specifically targeting irrational cognitions did not significantly reduce gambling-related irrational beliefs.

As the dynamic sign increased recall and comprehension, the content of the message must be designed to effectively increase knowledge and correct irrational cognitions regarding gambling. As discussed previously, simplifying the informative message to target just one irrational belief may increase its effectiveness.

This study may inform policy decision-makers and key stakeholders as it established that dynamic messages increase the extent to which EGM players can recall information freely and in response to prompted cues compared to government-mandated static signs. Therefore, a harm-minimisation strategy involving simple, dynamic messages, scrolling across EGM screens during play, each targeting either one irrational belief or erroneous estimation concerning probabilities of winning, with information provided by a cited official source, may lower the prevalence and incidence of problem gambling in the Australian population, by increasing knowledge and correcting irrational cognitions in a manner that fosters informed choice.

References


RECOGNISE, REMEMBER AND RESPOND

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ABSTRACT

Recognize, Remember and Respond are referred to as the 3 R’s in Controlling Problem Gambling Behaviour. They were developed in the Getting Even Group Program, a program for problem gamblers. A process has been developed in this program which provides a framework to help people to manage the ‘urge’ or ‘temptation’ to gamble in constructive ways, and which helps them interrupt their normal way of gambling (that is in a problematical way).

The 3 R’s were developed as a simple way of encapsulating this framework and as a simple way of reminding people of the steps to take to successfully resist the urge to gamble and to break their problematical gambling habit.

This paper describes the elements of the 3 R’s, the exercises and process involved in their development, how they can be used in counselling work with individuals to promote therapeutic change and as a structure to promote and maintain change away from the counselling rooms.

Introduction

As part of Getting Even a series of exercises have been developed which build on individual motivation for change, give participants an understanding of the process of thinking, feeling and behaving that encourages and maintains problem gambling behaviour, and which helps them develop alternative ways of thinking and behaving which discourages problem gambling behaviour and encourages constructive alternatives. These are completed in the group setting in pairs, in small groups, in the whole group and sometimes individually. In a whole group setting they involve the active participation of the group facilitator.

Increasingly I have been using these exercises in the counselling room with individuals who have a gambling problem, particularly when they want strategies ‘to deal with the urge or temptation to gamble’. They provide a way of bringing focus to the work and of working briefly with clients. They also, when linked with the 3R’s, provide an effective self-help tool away from the counselling room.

I will describe the exercises, how they are used and how they relate to the 3 R’s.
The 3 R’s and Component Exercises

The 3 R’s are RECOGNISE, REMEMBER and RESPOND. Recognize refers to the ability to recognize the signs of gambling risk. Remember refers to the ability to remember that the risk factors habitually result in a bout of gambling which will invariably result in losses, and to remember the historical losses and losses to come if they continue. Remember is to also remember what they stand to gain by not gambling. Respond refers to the ability to respond constructively to risk and to put into place constructive ways of achieving the purposes of their gambling.

The first exercise is called the Costs and Benefits of Gambling and Not Gambling Exercise. In the Group Program this is done as a whole group exercise. It involves listing all the costs of group participants gambling. That is all the ways it has contributed loss and damage to their lives. The second part involves listing all the ways in which participants would benefit from not gambling. They are asked to think of positive changes that would take place within a month, six months, a year, two years etc. The next part of the exercise involves participants listing the benefits of their gambling, what they have liked or enjoyed about it at some time. This to clarify the purpose their gambling served for them. The next part of the exercise is to find ways to achieve these purposes constructively and non-harmfully. This may mean doing without some things. The final part of the exercise is to consider what the costs of not gambling would be. For some people this seems strange. The costs of not gambling in some ways reflect the benefits of gambling. The question asks ‘What will I have to face or do differently if I don’t gamble?’ If the benefits of gambling, and the costs of not gambling are not effectively addressed they have the potential to inhibit effective change in gambling behaviour.

People are then encouraged to complete this exercise as individuals and to regularly review their lists of the costs of gambling and benefits of not gambling. In reviewing their lists they are encouraged to feel the feelings and emotions associated with their losses. This is to promote reality thinking (and feeling) in relationship to their gambling, and to help them remember this in the face of the urge to gamble. That is thoughts that reflect what actually happens in a bout of gambling, what the results of their gambling is historically and what the results will happen in the future if they don’t change now. This ‘getting real’ builds on participant’s motivation for change.

They are encouraged to start putting into place alternative ways of achieving the purpose of their gambling and constructive ways of dealing with the costs to them of not gambling.

This exercise contributes to REMEMBERING and RESPONDING.

In the group, participants are encouraged to complete this as a paper exercise individually (see appendix 1) and as a group exercise.

In an individual counselling session I’ll keep the option of doing this as a paper exercise until last. I’ll ask what the costs are, what the benefits of stopping would be, in the short, medium and long term. Then I’ll ask about what they get out of gambling. Completing the elements of the exercise becomes part of the therapeutic conversation. At some stage
I will suggest they complete the exercise in a written form and start the regular review. Feedback suggests that completing this exercise in a written form and then reading what has been written makes it harder to discount the reality of their gambling and so is more efficacious than thinking the same things.

The main idea is to be clear about the purpose of this and the other exercises to be described, and then weave them into the therapy in a way that fits the situation.

The second exercise is the *Tricky Thinking Exercise* (appendix 2). This exercise traces the thoughts that people have that encourage them to gamble. They are thoughts that make the action seem Ok and safe. They are invariably untrue, unsubstantiated by their gambling history. They can relate to hopes about their gambling outcome, ways in which they will control their gambling so it won't be harmful, thoughts that if true would make their gambling un-problematical. The exercise involves in the group writing up all the different thoughts 'that trick them into gambling'.

The second part of the exercise involves creating thoughts that reflect actual 'reality' corresponding to each 'tricky thought'.

In the group following on from completing this exercise group participants write down their individual 'tricky thinking' and corresponding 'reality thoughts'.

In counselling individuals, again in the course of conversation, people can be asked what they are thinking before they start gambling. "What was it that happened that got you thinking about or feeling like gambling?" Then, 'What did you start thinking when this happened?' and "What were the actual thoughts you had that encouraged you to gamble?" I'll encourage people to think of the most potent thoughts that encourage them to gamble and then to develop corresponding thoughts that reflect the reality of their situation. As they speak, these thoughts can be recorded and a copy made for them to take away.

It can also be suggested that they do this exercise more formally as in is done in the group program.

The purpose of this exercise is twofold. First it is to help people realize that by following a certain train of thought and by acting as if it were true, they gamble. This is to help them RECOGNISE that when they start thinking 'tricky thoughts' they are at risk of gambling unless they do something that ensures they behave differently from how they usually behave in these circumstances.

Second it is to help people develop a way of talking to themselves that helps them dispute the logic of 'tricky thinking' and which puts them in touch with their reality as far as gambling is concerned. Part of this new conversation can be reference to their losses. Having different self-talk is part of the development of the third of the 3 R's, RESPOND. This exercise is then to help people RECOGNISE and RESPOND.

Often by using the results of these two exercises can be the tools people need to substantially help them resist the urge to gamble.
The third exercise is described as the *Patterns of Gambling Exercise* (Appendix 3). The *Tricky Thinking Exercise* is part of this exercise but is more limited in exploration. This is done as a group and an individual exercise in the Getting Even Program. It involves clarifying the events that start the individual thinking about, and feeling like gambling. Then tracking the individuals responses (the thoughts they have, emotions and feelings they experience, the actions they take) that lead them in the direction of gambling and which keep them gambling through to the time when that particular bout of gambling is finished. It then involves detailing the consequences of that bout of gambling, how they manage those consequences and the events (internal and external to the person) that lead up to the next bout of gambling. The purpose of this is to help the individual see that they are making choices and engaging in activities that invariably lead to them gambling with what are inevitable and invariable consequences for them. It is also to point out that the way they manage the consequences helps maintain rather than break their pattern or cycle of gambling. In the group setting this exercise tends to be done in detail. With individuals in a counseling session it can be very effective with less detail. It can involve making the principle links between triggers, their most influential responses (influential in encouraging them to gamble and maintaining their gambling), the consequences and how they handle them leading up to the next bout.

Part of the exercise is mapping ways to break the pattern. This will probably involve finding alternative ways of dealing with the triggers (and maybe the underlying issues in their lives which give the triggers their potency), and ways to neutralize the power of their responses to the triggers that encourage them to gamble. An assumption is made that for most people with a gambling problem they have most power to alter their behaviour at the beginning of the Cycle (i.e. in dealing constructively with the triggers and their initial responses to the triggers). Changing self-talk is part of this process.

This exercise helps develop the abilities to **RECOGNISE, REMEMBER** and **RESPOND**.

The fourth exercise is called the *Safety Plan Exercise* (Appendix 4). This exercise involves creating a plan to break their gambling habit. It asks people to list the events which are the main triggers that invite responses that lead to gambling. Then to list constructive ways to deal with these events, that discourage gambling. Next to list behaviour they engage in that encourages gambling (eg, turning left when they leave work (left leads to a Venue)). Then to list behaviour that would discourage gambling (turning right when they leave work). This behaviour avoids the ‘encouraging behaviour’. Next to list the most powerful thoughts they have that encourage them to gamble and the thoughts that effectively challenge these and discourage gambling. Finally to list the beliefs they have about themselves and the world that could encourage gambling. Beliefs like ‘I’m not worthy’, ‘It doesn’t matter what happens to me’, ‘I don’t have the strength’, and ‘I deserve this suffering for…..’'. The next step is finding beliefs about themselves and the world which they may possess in a limited way that contradict these, and would discourage gambling. This might involve looking at their lives differently to recognize and own strengths that can be assumed from things they have done in their lives.

People are asked to review this *Safety Plan* and encouraged to practice it. Again with individuals in a counseling session this can be completed verbally and as a written
exercise. A strength of them reading what they have written is that they can’t erase the written form as simply as their thought form.

This exercise helps people to RESPOND.

The final set of exercises relate to the development of Mindfulness (Appendix 5). Mindfulness is the ability to be aware of events (within and outside the body) as they happen without being influenced by them and without making judgments about them. It is the ability to face experience whilst peaceful. The purpose of developing Mindfulness is twofold. First to help people be aware of the ‘urge to gamble’ without being drawn in to acting on it. Having done this to then have the opportunity to put into place whatever they need to do to avoid gambling.

Mindfulness thus aids in the development of RECOGNISING and RESPONDING.

Conclusion

These exercises can be used in a single session and provide clients with enough of a structure to help make them work for them. They will have new knowledge about what leads them to gamble and steps to put in place to help them not gamble. Of course if completed in one session the exercises will have to be used in a way that makes that possible. They can have a new conversation when confronted with the urge to gamble. It can sound something like this; ‘I’m thinking of gambling. I’m thinking I’ll limit myself to $50 and that if I win I’ll walk out. I never stick to a limit. I gamble whatever I’ve got in the account. I’ll leave myself with nothing and not be able to pay the rent. This time she’ll leave. I think I’ll win but I’m just adding to the losses. I’ll call Emily to get some support’. It contains the 3 R’s, RECOGNISE, REMEMBER, AND RESPOND.

Towards the end of the session clients are given the 3 R’s Card. (Appendix 6). This is to remind them of the steps to go through to help them avoid gambling. If they have completed in some way the sets of exercises mentioned, either in the session or away from it, and have some written material to remind them of the main points of each exercise, and take time to remind themselves of the contents of these exercises and practice them, they will have the means to help them complete the 3 R’s. This is where they put it all together. The more they can practice, the more it seems to work. Success breeds success.
APPENDIX 1.

GETTING CLEAR ABOUT THE REAL COSTS OF GAMBLING AND YOUR REASONS FOR CHANGING.

The following exercise asks you to think about, and then list the benefits and costs of gambling and not gambling. It may seem strange in your position to think that gambling has benefits and not gambling costs.

Most people start off gambling because it holds certain attractions for them (ie. A place to go when you can’t think of anywhere else, or when you feel lonely, a place to forget what’s bothering you, winning made you feel good, you like the ‘rush’ etc.) What was good in the beginning may wear off sooner or later but by then you are stuck with a habit! A habit that is hard to break.

These attractions provide a purpose to gamble and will need to be met or achieved in other ways, hopefully in ways that don’t create new problems.

Talking of costs being associated with stopping gambling or gambling in a controlled way may seem strange. The benefits of gambling may seem like the costs of stopping or gambling in a controlled way. They are the things you will have to face up to if gambling isn’t an option in the way it was before (eg. Control my anxiety in a different way, sort out my marriage, make some new friends, and find different ways to get some excitement into my life).

To help you break your habit, the benefits of gambling and costs of stopping/controlling your gambling, will need to be successfully addressed. If they aren’t they can undermine your efforts to control your gambling.

Once you have created your list you can use it to remind yourself what really happens when you gamble in an uncontrolled way. What your history of gambling has really given you rather than what you hope to ‘win’ when you think of going and whilst you are there! The idea is to help you think of the consequences of gambling for you, before you go rather than having to wait until the end of a gambling session. Like getting real now rather than when you’ve lost more than you can afford to.

Once a day spend about 10 minutes reading through your list. Read it and notice your reactions. Don’t get down on yourself. The idea is about accepting the reality rather than trying to deny it or hope that next time you will win what you need to put everything right. This may be hard. You may feel scared about really facing up to what you are doing and have done. You may feel acutely uncomfortable, ashamed, an idiot. You may despair thinking that there is no way you can repair the damage you have done, or nothing you can do to avoid the pain to come.

Accepting the damage you have done, and being clear about what you can gain from being in control of your gambling behaviour, are important in making your reasons for changing clear to yourself, and in building up your determination to make changes and to persevere in your struggle to make those changes in your gambling behaviour that you
want. Most people are ambivalent about changing habits even though they know they are not good for them. Most people struggle to get their motivation clear, and then struggle at least sometimes to remember. So you’ll swing from wanting to change to not wanting to change, or forgetting you want to change. This exercise can help in building your determination to change and to stick at it.

**GETTING EVEN**

**COSTS & BENEFITS OF GAMBLING & NOT GAMBLING**

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<th>NOT GAMBLING</th>
<th>COSTS</th>
<th>BENEFITS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
APPENDIX 2.

WHAT'S YOUR TRICKY THINKING?

List the thoughts that lead you towards gambling and keep you at it even though you may be losing (“it’s OK you’ll stick to your limit”, “I’ll just put in $20”, “I feel lucky today, the machine has got to pay out”, “I can’t go home having lost all this”, “just a big win, that’s all I need to catch up” etc.)

1
2
3
4
5
6
7

These are the thoughts that inspire hope that your gambling will pay off for you. In reality they lead to a bout of gambling that history tells you will end in trouble and add to difficulties that you are already facing due to your gambling.

When you’re thinking like this, if your habit is in control, you will end up gambling.

In recognizing the thinking that leads to gambling, you give yourself a chance to let yourself know what is really going on and what the consequences will be.

In recognizing what you are thinking, and knowing what will happen if you go along with it, you give yourself a chance to remind yourself what really happens when you gamble, and what costs you have already paid by believing in this kind of thinking. You also give yourself a chance to let yourself know what you stand to gain by not gambling. If you have stopped for a while you give yourself a chance to let yourself know what you have already gained in the last few weeks (months etc.) by not gambling.

LIST THOUGHTS TO COMBAT THESE THAT ARE BASED ON YOUR REAL EXPERIENCE.

(eg) I never stick to a limit; I never walk out with what I win; I’m down $50000; What I’ve lost is gone I’m not getting it back etc.

1
When you start the *tricky thinking* there are three things to do:

- Recognize the tricky thinking for what it is, a delusion, a trick to get you to gamble.
- Remember what happens when you go and what you have lost to date.
- Respond to ‘tricky thinking’ with ‘reality thinking’ and something different.
Patterns of Gambling

CONSEQUENCES
PERSONAL
RELATIONAL
FINANCIAL ETC.

HOW YOU DEAL
WITH THE
CONSEQUENCES

NOTING
THE STREAM OF
THOUGHTS,
EMOTIONS,
ACTIONS AND
PHYSICAL
SENSATIONS
THAT LEAD TO,
AND MAINTAIN
YOUR GAMBLING

• Triggers
  • 1.
  • 2.
  • 3.
  • 4.
  • Invitations to
    gamble

Ongoing
Unresolved
issues

GAMBLER'S HELP 1800 158 789
www.problemgambling.vic.gov.au 24 HOUR 7 DAYS
APPENDIX 4

SAFETY PLANS-AIDS TO STAYING IN CONTROL
(HELPFUL ALTERNATIVES TO WAYS OF THINKING AND BEHAVING THAT ENCOURAGE GAMBLING.)

1. Main triggers that seem to start the ball rolling in the direction of you gambling.
   a) 
   b) 
   c)
   d)

2. Helpful ways of dealing with these triggers.
   a) 
   b) 
   c)
   d)

3. Behaviour that makes it easier to gamble.
   a)
   b)
   c)
   d)

4. Behaviour that takes you away from gambling.
   a)
   b)
   c)
   d)
5. **Thinking that makes it easier to gamble.**
   a) 
   b) 
   c) 
   d) 

6. **Thinking that helps take you away from gambling.**
   a) 
   b) 
   c) 
   d) 

7. **Beliefs about yourself and life that make it easier to gamble.**
   a) 
   b) 
   c) 
   d) 

8. **Beliefs about yourself and life that take you away from gambling.**
   a) 
   b) 
   c) 
   d)
APPENDIX 5

MINDFULNESS

Mindfulness is the experience of just being aware of what we are thinking as we think it, what we feel as we feel it, and how we behave as we are carrying out actions. It is noticing what is going on with us as it happens without judging those experiences. Noticing and being aware of what is happening rather than feeling we just do things automatically, seemingly, in a way outside of our control. It is the experience of not getting *high-jacked* by our emotions, by our patterns of behaving and thinking.

It helps us realize what our reactions to events in the world around us actually are. We all have feelings, emotions, thoughts, and bodily sensations in response to what is going on in our world. It helps us be *detached* from these internal events.

To be aware of what these responses are can give us information about what we like and don't like. It can give us feedback about our behaviour to others to help us adjust to change; it can help us make choices about how to behave if we don't like how we tend to behave. It can also give us a lot of information on which we can base choices we make in our lives.

It can help us sort out problems in our lives (eg. if I know I feel uncomfortable I can ask myself 'why'? Finding out why can help me find a solution to my discomfort etc). For change in any behaviour or way of thinking and feeling we need to first be aware of what we presently think, feel etc..

Mindfulness can help us be aware of what stops us from changing, of how the old habit grabs our attention, of when we forget and, oops, there we go again! It helps us keep track of where we are, and what we need to do next. If we were driving to Canberra we'd be on the look out for road signs, directions, landmarks etc. to make sure we were going the right way. If we missed a particular turn off we might not get there. In fact if you missed a few signs you could end up in Sydney. Mindfulness is a bit like that; watching for the signs so you can alter direction if needs be and get to the right destination,

Practicing Mindfulness can also be quite relaxing.
PRACTICING MINDFULNESS

Choose times to

Practice being aware of the different feelings, thoughts and sensations in your body that you are having.

Choose times to

Practice being aware of the different things you are doing.

Notice what doing this is like.

FOCUS ON THE BREATH EXERCISE

Sit comfortably in your seat with both feet on the ground

Close your eyes and notice your breathing

Coming in and going out, coming in and going out

If any thoughts come into your mind let them be there

Keep your attention on your breathing

If you hear a noise just keep

Your attention on your breathing

Whatever happens just notice your breathing

If you get distracted by your thoughts or noise around you or anything else

When you realize what has happened

Bring your focus back to your breathing

All you have to do is keep your attention on your breathing

That will do the work for you

Try it for 10 minutes and if you like it extend the time for practice.
APPENDIX 6.

THE 3 R’S
IN CONTROLLING

STEPS TOWARDS CONTROL

1. Recognise... the signs that you are thinking of and/or
2. Remember... the reality of what happens when you are there.
3. Respond... do something different and stay out of the venue.

Think about it:

If you don’t take control now.... things will be worse in a year.

- no one wins.... you just add to your losses
- this time will be no different.... from all the other times
- when you set yourself a limit.... you never stick to it
- if you think you are in control.... you’re just kidding yourself

1800 182 548
QUEENSLAND RESPONSIBLE GAMBLING COMMUNITY AWARENESS CAMPAIGN

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ABSTRACT

Regulation, probity, harm minimisation and community benefit are the basis of a balanced strategic approach to gambling policy in Queensland. Together, they allow the government to address the potential harms of gambling, while managing the industry to provide safe recreation, entertainment and the resulting economic return to the community.

The Queensland Responsible Gambling Strategy encompasses harm minimisation strategies that focus on prevention, protection and rehabilitation of people who are at risk, who are experiencing problems related to gambling or who are adversely affected by another’s gambling.

The Responsible Gambling Community Awareness campaign forms part of these harm minimisation responses. This is the first communication campaign in Australia that has adopted an early intervention approach to the issue of gambling as opposed to only targeting problem gambling. Evaluation results show it has the capacity to positively influence behaviour.

The development of the campaign was informed by 18 months of market research to create a range of materials that target the mainstream Queensland community and International students.

Introduction

Regulation and probity, harm minimisation and community benefit are the basis of a balanced strategic approach to gambling policy in Queensland. Together, they allow the government to address the potential harms of gambling, while managing the industry to provide safe recreation, entertainment and the resulting economic return to the community.

The Queensland Responsible Gambling Strategy (2002) is based on a public health approach which encompasses a set of harm minimisation strategies focusing on prevention, protection and rehabilitation initiatives. Promotion, early intervention and prevention policies are policies which seek not only to maximise the health and well being among the wider population but also seek to prevent problems within individuals or groups that are at risk of harm.
Placing gambling as an issue within a population health framework is valuable for a number of reasons. This type of approach offers a broad viewpoint on gambling in society – not solely a focus on problem or pathological gambling. Korn, Gibbons and Azmier (2003) argue that a population health approach emphasises the prevention of gambling-related problems and harm reduction with the aim of decreasing the adverse consequences of gambling behaviour. Adopting a public health model to underpin early intervention and prevention policies and programs recognises that gambling is a complex issue which requires a continuum of approaches focusing on both the population as a whole, as well as specific groups that due to social, environmental, familial or individual factors, may be at greater risk of experiencing gambling problems.

The Responsible Gambling Communication Strategy forms part of the Queensland Government’s harm minimisation responses. It was designed to present a continuum of messages, ranging from those based on a prevention/early intervention approach targeting low to moderate risk gamblers to messages which provide information on where to get help and support for people experiencing gambling problems.

Articulation of the Communication Strategy involves the development and implementation of ‘grass-roots’ community education activities which are the responsibility of the 13 regional Gambling Help services and state-wide communication activities which are the responsibility of the Queensland Office of Gaming Regulation (QOGR).

In 2002, approval was received for the development of the Responsible Gambling Community Awareness campaign. This campaign was created to form a set of responses that:

- are designed to increase awareness and education about the potential risks of gambling and responsible gambling protective measures,
- have some capacity to affect broader spectrum education on responsible gambling habits and behaviours28, and
- are based on an prevention/early intervention approach to target gamblers in the low and moderate risk groups29.

Target Market

Determinants of health occur at a population level and comprise a range of psychosocial and environmental factors including income, employment, poverty, education and access to community resources, as well as demographic factors. These determinants translate into risk and protective factors for population groups and individuals. Risk factors

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28 This type of health promotion initiative is taken to maximise health and wellbeing among populations and individuals and involves promoting informed and balanced attitudes and behaviours towards gambling and gamblers (Korn et al 2003).

29 Within this context prevention interventions focus on preventing gambling problems in individuals and groups at risk of experiencing gambling related harm either through their own actions or as the result of another’s gambling activity. Early intervention refers to interventions targeting people displaying the early signs of a problem and therefore relate to protecting vulnerable groups from harm (Korn et al 2003).
increase the likelihood that a problem will develop, whereas protective factors reduce this likelihood (NMHS 2000: ix).

Gambling risk factors are those factors associated with a greater potential for problem gambling. Risk factors are not predictors of gambling problems, but indicators of vulnerability. The more risk factors an individual is subject to or the more influential an inherent risk factor is for a given individual, the more vulnerable an individual is to developing problem gambling behaviour. Similarly, protective factors do not shield an individual from gambling problems but will help to reduce their vulnerability to experiencing gambling problems. In terms of responsible gambling policy, strategies that are targeted at prevention, protection or early intervention draw on knowledge about risk factors and protective factors with a view to minimising the impact of the former and enhancing the effectiveness of the latter.

The Queensland Household Gambling Survey (QHGS) 2001 (2002) sought to estimate the prevalence of problem gambling and gambling risk in the Queensland community. The survey effectively segments the Queensland population into relative risk groups ranging from non-gambling and non-problem gambling through low risk, moderate risk and problem gambling. The results of the survey provided direction to the selection of the target market for the Responsible Gambling Community Awareness Campaign by providing a broad profile of groups that may be at risk of developing a gambling problem and identifying them on the basis of demographics as well as patterns of gambling activity.

The survey results identified approximately 10.88% of the adult Queensland population or 287,000 people could be categorised as low to moderate risk gamblers. It was estimated that 0.83% of the Queensland population or 22,000 people, experience problem gambling (Queensland Government 2002: 7).

The research identified that 2.7% of the adult Queensland population or 71,000 people are moderate risk gamblers. This group participates in multiple gambling activities and demonstrates increased durations and frequency of play. The group is disproportionately male, the majority are employed and more than a third are aged between 18-34 (Queensland Government 2002: 11).

Low risk gamblers are estimated as being 8.18% of the adult Queensland population or 216,000 people. More than a third of this group is aged between 18-34 and there is a relatively even split between males and females. The majority are in a relationship and
are employed. This group also engages in multiple gambling activities (Queensland Government 2002: 9-10).

As a result of the findings of the Queensland Household Gambling Survey 2001, the Responsible Gambling Community Awareness Campaign was created to target 18-34 years olds with a more intense focus towards men. It presents a series of messages based on an prevention/early intervention approach targeting low to moderate risk gamblers. These two risk groups were selected as the target market for the campaign because of the potential to effect greater behavioural change within people currently not engaged in problematic gambling.

**Research Design**

In 2002, AC Nielsen Research was engaged to undertake market research to inform the development of the Responsible Gambling Community Awareness campaign.

In Phase One of the campaign’s development AC Nielsen engaged in exploratory research, which involved interviews with representatives of the Gambling Help Service Network and other Support services, Churches of Christ Australian Care agencies, Ethnic Communities Council, Salvation Army, Gamblers Anonymous and the Multicultural Problem Gambling service.

A situational analysis was also conducted by Professor Jan MacMillan from the Australian Centre for Gambling Research. This analysis provided recommendations on research locations, potential target groups and screening criteria that would be employed in Phase Two of the market research.

Phase Two of the market research adopted a qualitative approach employed to understand people’s underlying needs and motivations in relation to gambling. It involved 30 in-depth interviews, running between 2-4 hours, in locations in South West, Western and Northern Queensland. Interviews took place from 23 June to 13 July 2003. Twenty-four interviews were undertaken with gamblers categorised as low to moderate risk and 6 were conducted with significant others (friends, family and work colleagues).

Of the 30 in-depth interviews, 8 were conducted with people from a Non-English Speaking Background (NESB), focussing on people from the Chinese, Vietnamese and Greek communities. Eight interviews were held with people from an Indigenous background and 14 were held with people drawn from the mainstream community.

The information gathered as part of Phase Two was delivered to a creative agency to inform the developmental communication stage. In 2003, Bristow Cornwell Moreland (BCM) was engaged to develop a series of communication concepts in response to results of the Phase Two market research activities. Five communication campaigns with multiple executions were developed to be utilised in Phase Three.

Phase Three of the market research utilised a qualitative approach for concept testing. This involved 4 mini focus groups, 2 in Brisbane and 2 in Cairns, which took place from...
22 to 23 September 2003. Focus group participants were determined to be a mix of low and moderate risk gamblers drawn from the mainstream community.

During Phase Three a series of 4 depth interviews were conducted with overseas students from Sweden, Germany, Singapore and Malaysia. These depth interviews were followed by 4 mini focus groups where students from both Europe and Asia were shown the communication concepts. All research with overseas students was conducted in Brisbane.

The results of the Phase Three research highlighted three strong communication campaign ideas and suggested some possible amendments.

In March and April 2004, quantitative testing with 200 low to moderate risk gamblers, aged 18 years and over, was conducted in Brisbane and Cairns. The results of this quantitative testing informed the selection of the final campaign concepts.

**Phase Two – Research Findings**

Phase Two of the research adopted a qualitative approach employed to understand people’s underlying needs and motivations. It involved 30 in-depth interviews, running between 2-4 hours, in locations in South East, Western and Northern Queensland. Interviewing took place from 23 June through to 13 July 2003.

All the people who participated in the study were screened to determine their fit to the low to moderate risk profile. They were included in the study based on their gambling activity and according to their answers to a number of questions, designed to exclude problem gamblers, relating to chasing losses, intensity of gambling activity and faulty cognitions.

Given the relatively small number of people interviewed, the findings of the study are indicative rather than representative of the population as a whole. As the findings supported research undertaken in other jurisdictions and were consistent across all people interviewed, it was felt that the interview numbers were sufficient for the purpose of developing concept messages. If this had not been the case further interviews would have been undertaken.

**Low to Moderate Risk Gamblers**

All the people who participated in the study regularly participated in more than one type of gambling activity, including Gold Lotto and Scratch-Its. Many also played Keno and Casino Games on a fairly regular basis. The main or preferred forms of gambling (which became the focus of the interviews) were poker machine gaming, sports betting and race betting. All interviewees were largely unfamiliar with internet gambling and many considered internet gambling to be dangerous, secretive or hidden and an activity associated with problem gamblers.

The frequency of their gambling activity ranged from daily to weekly. A number of factors were shown to contribute to increased frequency in gambling activity. These included:
- Operation of a phone account for race sports betters,
- More time alone or idle,
- Feeling stressed,
- More time spent at the pub or club, and
- More time with friends who gamble or with people who gamble relatively heavily.

**Motivations for Gambling**

Low to moderate risk gamblers stated that gambling fulfilled a need for “light-hearted” entertainment. For those from a Non-English Speaking Background, the motivation is two-fold. They gamble both as a form of entertainment and as a way to make money. For Indigenous people, the social role is foremost. They enjoyed the social contact of going out and the extra income made an interesting change.

**Loss of Control**

All the low to moderate risk gamblers interviewed saw themselves as responsible or controlled gamblers. They demonstrated their sense of control by:

- setting time and spend limits,
- thinking rationally,
- showing willpower, and
- demonstrating the ability to prioritise other responsibilities (e.g. family, future plans)

These perceptions hold true for the NESB group who also believe they can stop at will. All people interviewed perceived their gambling as “harmless”, “everybody does it”, “it’s just a little flutter”.

For low to moderate risk gamblers, the essence of loss of control is spending more than they can afford to lose or more than is intended or allocated.

**Role of Significant Others**

All people interviewed felt that significant others, such as friends and family have an important role to play in:

- monitoring gambling frequency and spend
- in bringing the gambler ‘back down to earth’, and
- in encouraging other/outside interests, such as sport, family outings etc.

The role of significant others is markedly less so for the NESB group, who demonstrated a significant desire to hide personal gambling activity and to not confront a loved one about gambling. For the Indigenous community, the role of friends and family would be discreet and would focus on trying to redirect interests rather than directly confronting the person concerned.
Perceptions of Problem Gamblers

Low to moderate risk gamblers’ perceptions of the problem gambler are important because they influence responsiveness to current communications. It is also important to note these perceptions because, bearing in mind that this group are identified as being at risk of developing gambling problems, they represent potential barriers to identifying and acknowledging problems and seeking help.

The audience’s perceptions of the problem gambler were revealed to be negative and highly stereotyped.

The low to moderate risk gamblers interviewed saw the problem gambler as having the following characteristics:

- Depressed, bitter and resentful of life, had a hard life
- A personality that may be loud and aggressive in males and cold and introverted in the case of females
- A limited social life
- A family situation which is unstable or non-existent
- Dissatisfied with occupation and lacking ambition – unemployed, suffering from stress in the workplace, unskilled worker or mother with several children unable to cope
- Uneducated
- Financially unstable, including substantial debt, struggling to make ends meet
- Highly likely to drink or smoke too much, and
- Motivated to gamble by the need to escape from their life, need to win money and desire for social interaction (“Being around others”).

All were adamant in declaring that they did not have these characteristics and they could see little or no relationship between their gambling and the activities undertaken by the problem gambler. As a consequence they could see little personal relevance in any of the current messages available in venues as they felt they were aimed at problem gamblers.

Current Communication Activities – Signs in Venues

Almost all gamblers interviewed spontaneously recalled messages in venues about problem gambling (including the NESB group). But these are perceived to be aimed at problem gamblers, not themselves.

Testing of Potential Messages

A range of messages were suggested as a result of consultation with service providers and gambling support services. They were:

1. Are you gambling with more than your money?
2. Be informed, think about the odds
3. Know your limits, don’t gamble beyond your means
4. Don’t wait too long – discuss things earlier rather than later
5. It can be helped – strategies exist to regain control
6. Gambling support services are free
7. You can bet your life on it, but we’d rather you didn’t
8. You can’t win in the long run
9. You can’t gamble your way out of trouble
10. Are you using someone else’s money to gamble with?
11. Problem gambling is an issue for our community.

To determine their potential efficacy, these messages were evaluated as part of the depth interviews.

- The best performing message was “**Know your limits, don’t gamble beyond your means**”
  
  **Positives of this message:** Acknowledges that people gamble; reinforces gamblers’ understanding of responsible gambling; strongly linked to responsible gambling practices

- Also somewhat effective was “**Are you gambling with more than your money?**” (the current message displayed in Queensland gambling venues)
  
  **Positives of this message:** Questioning approach provokes thought; reminder of other things players could be spending their money on
  
  **Some Negatives:** May seem a little extreme for low to moderate level gamblers; does not have as much impact for people who have limited responsibilities. (This is because the current poster shows a person with family and financial responsibilities eg house and car.)

- For the Indigenous group, the most effective message was “**You can’t gamble your way out of trouble**”
  
  **Positives of this message:** It’s a fact (“You just need to go to the hock shop and see”).

For the NESB group there was extremely limited interest in any of the messages. In fact they felt gamblers would laugh or ignore any messages developed. This group said nothing can help to reduce/stop gambling except:

- Closing the venues,
- Losing all their money, or
- Providing alternative forms of entertainment.

This group believed people would not listen to messages in newspapers, signs on venue walls, TV or radio. However, they do agree that something should be done to communicate with people at risk of developing gambling problems. One Greek participant said that scare tactics should not be used.

**Other message suggestions arising from depth interviews**

Other phrases and images suggested by interviewees focused around communicating messages aimed at control strategies, chances of winning and the shame felt when a gambler had lost control. Suggestions included:

- Setting a limit and not exceeding it,
- Not chasing losses,
- Realising the negative impact on social/ family life,
• Chances of winning (particularly for poker machines), and
• Feelings of embarrassment/shame as a result of having been irresponsible.

For the Indigenous group it was felt the gambler needed to be told to stop before a problem develops. Suggested messages were:
• Don’t be greedy, it will take away your dignity
• People care
• It costs you a thousand dollars to win a hundred, and
• Messages focused on remembering family values.

The Indigenous group stated that any messages needed to be culturally appropriate, use Indigenous images, tell true stories (personal testimonials) with a personal approach. Messages should only be delivered by a sports star or advocate who has experienced this problem. Further, there is a preference in this group for a ‘grass-roots’, this is my story, conversational approach.

For NESB, the problems appear to be deeper than a message can solve. This is because they perceive that gambling venues offer them something that nowhere else does. For example if they don’t feel that they are integrated into the community, don’t speak English well, some venues may provide transport, offer food and make them feel welcome/comfortable/at home, something that they feel society, on the whole, does not. It would seem that society needs to give them options of other things to do (outside of work), which meet the same needs that at present they feel are only fulfilled by gambling.

Key learnings from Phase Two

The market research revealed that any communication campaign needs to present a balanced perspective by acknowledging the positive aspects of gambling i.e. as a form of entertainment. Messages need to avoid depictions of the stereotyped problem gambler which are highly alienating to the target market of low to moderate risk gamblers. If messages are developed that convey the consequences of irresponsible gambling they must use realistic scenarios (not “drastic”).

A firm but non-authoritative tone of voice is suggested because this is more likely to encourage acceptance rather than defensiveness with this target group. Key messages that need to be conveyed should:

• include the idea of setting spending and time limits – as this is central to the meaning of being a responsible gambler, and
• recognise the influence of ‘significant others’ in preventing some gamblers, particularly race and sports betting gamblers, from developing problem behaviour.

The research has revealed that most communications used to date are ignored and considered irrelevant because low to moderate risk gamblers don’t see them as applicable to their gambling activities. However, warnings about the early signs of problem gambling can be thought provoking for this group.
Images

Communications will need to appeal to both the gamblers’ rational side (e.g. sticking to limits, having willpower etc.) and to the gamblers’ emotional side (e.g. how they feel when overspending, spending more time gambling so they don’t see their family). Imagery should illustrate their idea of control, and show the results of exercising control or losing control. It is important to show real people/the average person and not what could be interpreted as a problem gambler (i.e. stereotyping).

Placement

Sufficient feedback was received to suggest that placement away from the venue/point of sale is preferable. While aware of current messages in venues, respondent’s comments show they are not attuned, as they are distracted by their gambling activities, and that there is a need to digest messages away from the gaming room/track. There is also the added difficulty in positioning messages alongside those targeting problem gambling.

Placing messages away from venues has the added benefit of reaching significant others, raising the profile of responsible gambling and general awareness within the community as a whole. If messages are used on site, it is important that the ‘reminder’ message are located at the point of sale (or what is effectively, decision making time) – this is when they are handing money over at the TAB, when checking their form guide, when going to the ATM to withdraw funds.

Targeted campaigns – Indigenous and NESB

The market research discovered some major issues that would affect any campaign targeted at the Non-English speaking background (NESB) communities. These findings were supported by the University of Queensland report, “Problem Gambling in non-English speaking background communities in Queensland: a pilot study” (2003).

While more information was gathered to support the development of an Indigenous communication campaign, activities centring on the development of appropriate services and community-based responses necessitate a delay in the development of this facet of the communication strategy.

Overseas Students

It was agreed that specific messages would not be developed for the NESB audience during this period. The exception to this was the development/testing of concepts with overseas students.

Reasons for this exception include:

1. The Queensland Household Gambling Survey 2001 which clearly identifies the demographic characteristics, in terms of age and education, for problem gamblers. These characteristics place university students firmly within the risk group.
2. The results of the AC Nielsen depth interviews revealed that gambling offers the NESB group a sense of belonging that is often unavailable elsewhere. If they don’t integrate into the community, don’t speak English well, gambling venues make them feel welcome, by offering food and transport. All respondents indicated that this is something that they feel the rest of society does not do. This finding indicates increased risk for those University students who may arrive with limited English skills.

3. The 2003 University of Queensland study into problem gambling in NESB communities in Queensland supported this finding and identified that lack of social support and limited social networks was a significant risk factor for the NESB population. Students were specifically identified within the study as being more likely to experience gambling problems because of their dislocation from friends and family.

4. The University of Queensland study also identified, that in conjunction with these factors, International students may experience increased vulnerability because some students may have significant disposable income provided to them by their parents. Some students were identified as spending their tuition fees and were therefore unable to enrol at university. Thus affecting their education and possibly leading to involvement in illegal activities.

As a consequence of this decision AC Nielsen conducted four depth interviews, with International students, in September 2003 to explore background issues to responsible gambling. The interviews were conducted with students from both Europe (Sweden and Germany) and Asia (Singapore and Malaysia).

The depth interviews with the students determined that their level of education and general English language ability tended to make them more open minded and enabled them to understand more complex issues. All interviewees were willing to voice their own opinions.

The results of the interviews determined that gambling offered overseas students a practical form of distraction and entertainment. All participants were aware of the risks associated with gambling and felt that they were capable of making informed decisions in relation to gambling. Their view of a responsible gambler and responsible gambling strategies aligned with the viewpoints expressed by the mainstream audience.

Due to the positive results of this set of interviews with overseas students it was decided to included this group in the concept testing phase of campaign development.

**Phase Three - Concept testing**

As a result of the Phase 2 market research report, BCM advertising developed a range of campaign concepts targeted at the low to moderate risk gambler. Each campaign contains a number of messages that revolved around an integrating idea or theme. These concepts focused on the idea of control, presenting a range of responsible gambling strategies and included messages targeted at friends and family, thus providing both the intellectual and emotional appeal which was highlighted as being of critical importance in the depth
interviews. All the concepts include a call to action to get more information from either the Gambling Help line or the Responsible Gambling website. By developing a range of messages within a single campaign it was anticipated that there would be reduced message wear out and the campaign would have a more sustained life within the minds of consumers.

All the concepts developed were suitable for print, radio, metro lights (e.g. bus stops) or transport advertising with some concepts having the potential to be translated into a cinema advertising concept because this was felt to be an effective channel for the target audience with these age demographics. No television advertising was considered due to the costs associated with this medium.

The campaign was also designed to be supported by a suite of information resources that could be made available electronically or in print form. These were aimed at encouraging people to engage in responsible gambling, providing more information on the warning signs of problem gambling and providing strategies to protect themselves and others from the adverse consequences of problem gambling.

**Focus Groups**

Concept testing of the campaign messages was conducted throughout September 2003. Focus groups were held in Brisbane and Cairns. Target groups involved in the testing were overseas students from Europe and Asia, and groups drawn from the mainstream community within the target demographics of age and gender. Four focus groups were held with overseas students and four with the mainstream community. Two of the mainstream focus groups were conducted with an older demographic to determine how the concepts translated across age groups.

**View of Responsible Gambling**

All focus group participants were asked to present their understanding of what the term “responsible gambling” meant for them and the type of behaviours a responsible gambler might demonstrate. This was done to ensure that focus group participants had a similar understanding to those people who participated in the depth interviews.

Respondents confirmed and in many instances replicated the ideas expressed in Phase Two. They spoke about the need to set spending limits, walking away when limits were reached and gambling for enjoyment not because you needed the money. Behaviourally, respondents reported that a responsible gambler did not take gambling too seriously, they treated it as a fun activity, did not appear stressed, angry or unhappy when they were gambling and they were happy to interact with people not just concentrate on gambling.

**Campaign concepts**

Participants were exposed to five advertising campaigns, each with a number of executions. All focus groups found two of the five campaign treatments and a set of responsible gambling strategies appealing.

Preferences were influenced by:
• Eye-catching layouts - Layouts that were colourful and utilised a single word were seen as both eye catching and different, inviting the audience to continue reading to ascertain the meaning.

• Synergy between words and images – concepts where the responsible gambling message is reinforced by the words and images enabled easy comprehension of the message.

• Use of humour/play on words – use of humour was found to present the messages in a memorable and non-threatening manner.

• Relevance of specific messages – concepts which tapped into highly relevant aspects of responsible gambling and which used familiar words and phrases were found to be relevant and appealing.

• “Gamble responsibly” tagline – allowed all participants to recognise that the key concept being promoted is responsible gambling behaviour and the concepts which used the “Gamble responsibly” tagline overtly linked the creative and its specific message with the desired call to action.

In one campaign treatment participants were presented with a list of nine responsible gambling behaviours that were developed from the depth interviews. The nine behaviours were:
1. Gamble for the fun of it, not for the money
2. Set yourself a limit and don’t exceed it.
3. Only gamble what you can afford to lose.
5. Think before you spend your hard earned dollars.
6. Think of the people who need your support.
7. Don’t take it personally. It’s only a game.
8. Don’t be weak. Be strong.
9. Stay in control.

All respondents reacted positively to the list and felt that it was an important reminder to the responsible gambler. They felt the list would form an important part of any campaign which utilised media where audiences had time to read all the key strategies. However, they felt the list should be reduced to 5 key points because the original list was quite lengthy and appeared slightly repetitious.

Placement of the Gambling Help line number on concepts

There was some concern that placing the Gambling Helpline number and graphical image on the concepts may cause low to moderate risk gamblers to tune out from the messages because they could perceive that it was targeted only at problem gamblers.

Results of the focus groups suggested that respondents felt that it should appear on the concepts and that while they did not feel that they needed the number they felt that
someone who was experiencing problems should be informed of where to get help. There were no negative reactions to its placement in the focus groups.

However, placement of the Gambling Helpline image was felt to clutter some of the campaign concepts and therefore would be better replaced with a text line reading “For information contact the Gambling Helpline on 1800 222 050”. The line was felt to be more subtle which was seen to be appropriate in a campaign targeting gamblers who were not experiencing problems. The word information was also seen as less threatening and a more appropriate term for the target audience of responsible gamblers.

**Phase Four – Quantitative testing**

To determine the most viable treatment from the two preferred campaign concepts, quantitative testing was conducted with 200 low/moderate risk gamblers, aged 18 years and over, in Brisbane and Cairns. The four sessions were conducted in March and April 2004.

**Research participants**

There was an even mix of males and females aged 25-54 years in the main. One in ten was aged 18-24. Participants gambled more frequently on gaming machines and lottery, followed by keno. Most saw gambling as a form of light entertainment but half tended to gamble alone and use gambling as a way to forget stressful things and block out the world thus placing them in the identified risk groups.

**Research approach**

The approach utilised by AC Nielsen was based on the premise that advertising is designed to do one or more of the following four things:

- Build empathy – Do consumers like the ad and is it personally relevant to them? Does it generate feelings of warmth towards the product or service?
- Generate impact – Is the ad being noticed? Is it unique or different to other advertising for similar products or services?
- Communicate a message – Has the ad conveyed the key communication objectives?
- Persuade to do something – Has the ad been successful in shifting consumer’s behaviour?

**Research findings**

The campaign selected for implementation was reported to be more personally engaging and approachable by the target audience. Scores relating to empathy, impact and communication were very strong. The selected campaign was seen to be approachable, engaging, interesting, contemporary, informative and original.

The refined responsible gambling strategies list showed consistently high scores across all categories. Overall it was rated highly by over 70% of participants in terms of
empathy and communication. Over 54% of participants felt the treatment was persuasive and 59% saw it as highly memorable.

Participants reported that they believed the campaign targeted gamblers in the general community and had relevant messages for gamblers who sometimes spent more time or money than planned (equivalent to low/moderate risk gamblers).

The campaign scored very strongly in terms of communication, impact and on perceptions of being fun, imaginative and original and outperformed other concepts in terms of likeability and personal relevance for the target audience.

Scores relating to persuasion were relatively lower when compared to the other scores. However, persuasion scores will always tend to be lower in this framework of advertising evaluation and particularly when the advertising is dealing with topics relating to sensitive social behaviour. This is especially the case where people tend to ‘defend’ their behaviour and are less likely to think they should/could change anything. As such the best measure of persuasion is future behaviour change, which can be measured in other ways. Despite these factors 42% of participants felt that the concepts would encourage consideration of gambling behaviour.

**Campaign implementation**

The Responsible Gambling Community Awareness Campaign is designed to help prevent the occurrence of problem gambling. It aims to increase awareness and education about responsible gambling protective measures and seeks to develop the ability of regular gamblers to engage in responsible gambling habits and behaviours. The campaign seeks to prevent people becoming problem gamblers by reaffirming and reminding regular gamblers about existing control strategies that they already use. This campaign is part of the early intervention strategy to address gambling issues before they become a problem and aims to raise awareness of responsible gambling. It does not target problem gamblers.

The key message of the Campaign is “Don’t let gambling control you”. Secondary messages are aimed at reminding people of potential consequences and other responsibilities. The tertiary message, “Gamble responsibly”, is captured in the tagline presented on each concept. All messages centre on the concept of control and include a call to action for people to gather more information from either the Gambling Helpline or the Responsible Gambling website.

The media schedule concentrated on cinema, radio, out of home/transit advertising and press. This was supported by materials placed in all gambling venues across the State.

Media selection was based on an analysis of the media types with most reach for the target market. The target group has been shown to frequent the cinema on average 30% more than the average population. The quantitative market research showed 51% of participants had attended the cinema at least 6 times in the past month. Cinema has also been demonstrated to have greater impact and cut through and is particularly effective in reaching younger members of the target group. The proposed media schedule allowed
for periods of cinema advertising, in the peak viewing periods from April-May, October-January, in selected titles rated M and MA on both metropolitan and regional screens.

Radio activity concentrated in drive time evening sessions. Radio advertising allowed for coverage in both metropolitan and regional areas across the entire State. Activity was scheduled on selected stations with high appeal to target segments as well as on 4TAB.

Out of home/transit advertising ensured messages could be targeted geographically and there was scope for frequent exposure to messages. The use of print collateral such as avant cards has been demonstrated to be appealing to younger audience members and brochures placed in venues, libraries, student centres allow for more detailed information to be provided to the target market.

Press advertising allows for targeted placement of messages in appropriate editorial environments such as entertainment, sport and racing sections in both metropolitan and regional publications and also allowed for more detailed presentation of information.

Initial campaign placement commenced in April 2004 and ran to June 2004.

Campaign evaluation

The post campaign evaluation was undertaken in July 2005 with a sample of 505 Queensland residents aged between 18-34 and who engaged in 2 or more forms of gambling a week. Fifty-percent of the sample was from Metropolitan areas and 50% were from regional Queensland. The sample was skewed towards men, with 55% of the sample group male and 45% female.

The evaluation of the 2004-2005 Campaign involved tracking research and behavioural change measures.

Tracking research was undertaken through a number of sources:

- market research with a sample of the target audience to determine audience recall, message take-out and determination of any behavioural shifts;
- hits on the responsible gambling website;
- enquiries to the gambling helpline; and
- redelivery of responsible gambling cards and brochures to venues.

Baseline behavioural change measures were collected prior to the commencement of the 2004-2005 Campaign. This was undertaken to determine pre-campaign measures of cognitive distortion and perceived self-efficacy to control gambling behaviour amongst low to moderate risk gamblers. The benchmark data was gathered from participants in the 2003-2004 Queensland Household Gambling Survey who had agreed to be recontacted. A subsequent screen was conducted in July 2005, with the post campaign evaluation sample group, to determine if there was any change in the behaviour of low to moderate risk gamblers after 10 weeks of campaign activity.
Audience recall

The evaluation revealed the Campaign achieved strong levels of spontaneous and prompted advertising awareness. Forty-five percent (45%) of the target audience were spontaneously aware of the Campaign and this awareness rose to 71% when prompts were introduced to the sample.

There were roughly equal levels of spontaneous awareness between the male and female respondent groups (45%) and between the rural and metro sample (43-46%). However, there was a slightly higher degree of awareness amongst the 18-24 age group (47%) compared to the 25-30 and 31-35 year old groups (43%).

The print (12%), radio (13%), outdoor (22%) and collateral materials in gaming sites (30%) made strong contributions to spontaneous audience awareness. When prompt materials were introduced the print (35%), outdoor (33%) and cinema (16%) contributed to the strong awareness result.

The venue materials were not included in the prompt materials which would indicate why prompted awareness of venue materials stood at only 8% because patrons would not have seen the prompt materials in venues. In addition, the radio advertising was not included in the prompted awareness due to a technical problem in delivering the material.

All outdoor formats contributed strongly to the high degree of prompted awareness. With slightly lower levels for the bus and taxi backs which maybe the result of the limited amount regional placements for these concepts.

The main spontaneous message takeout for the cinema, print and outdoor materials were threefold:

- Gamble responsibly. Don’t gamble more than you can afford (20% print and outdoor; 27% cinema);
- Don’t let gambling control you and your life. Stay in control of your gambling (36% print and outdoor; 42% cinema); and
- Gambling affects other. Think of your family (16% print and outdoor)

The prompted message takeout for cinema, print and outdoor was almost identical to the spontaneous scores:

- Gamble responsibly. Don’t gamble more than you can afford (25% print and outdoor; 22% cinema);
- Don’t let gambling control you and your life. Stay in control of your gambling (35% print and outdoor; 49% cinema); and
- Gambling affects other. Think of your family (14% print and outdoor)

Seventy percent of the target audience could identify and relate to the campaign and felt that the message was relevant to them. The audience reported the cinema, print and outdoor advertising was attention grabbing (55% - cinema; 46% - print and outdoor),
likeable (48% - cinema; 38% - print and outdoor) and easily understood (41% - cinema and 54% - print and outdoor).

**Behavioural change**

There was little if any significant shift between the behavioural measures recorded in the baseline survey and the levels measured in the post campaign evaluation. Given this is a social marketing exercise it would be unrealistic to expect marked behavioural changes after 10 weeks of campaign activity.

However, there was one significant self-reported behavioural shift between the baseline measures and the post-campaign results. In the pre-campaign survey 38% of males and 20% of all females aged 18-34 reported setting time limits on their gambling. In the post campaign survey this figure rose to 47% for males and 52% for females. Though these figures should be used with a degree of caution, as the relative standard error exceeds 25%, the results do indicate the potential for positive behavioural consequences that could be attributed to this Campaign.

**Website traffic**

The Campaign materials contained a secondary call to action encouraging people to visit the Responsible Gambling website for information. The number of hits on the website showed a 22% increase in April 2005 following the launch of the campaign. From April to May there was a 40% increase in website traffic and this level was sustained throughout June. From June to July there was a 12% decline in hits which corresponded to the removal of campaign imagery from the market.

**Gambling Helpline contacts**

Calls to the Gambling Helpline were only slightly higher than pre-Campaign levels. During the period of the campaign, 1070 calls were received by the Helpline compared to 1025 in the previous quarter. This is not a surprising result as the Gambling Helpline is strongly associated as a service for people experiencing problems with their gambling and the Responsible Gambling Community Awareness campaign is targeted at regular gamblers and aims to sustain responsible gambling practices. Consequently, it is unlikely that the target market would view the Gambling Helpline as a service that they require.

Despite the limited increase in calls one significant change occurred in the gender breakdown of callers. The long term average of Gambling Helpline callers is 59% female and 41% male. The data gathered during the Campaign indicates 54% were female and 46% were male. This is the highest proportion of male callers to the Helpline since it became operational in 2002. Given that the primary target group of the Campaign were males this increase in calls from men may indicate a heightened awareness of gambling issues stimulated by the media activity.
Redistribution of venue materials

There was no redistribution of venue materials required. This was due to the considerable quantities of coasters, brochures and tent cards supplied during the Campaign period. In total 6.25 million coasters, 1.4 million brochures and 34,000 tent cards were delivered to all licensed hotels, clubs and casinos in Queensland. Brochures were also made available in newsagencies across the State.

The small amount of anecdotal feedback received from venues regarding the materials was extremely positive and congratulated the government on the approach being taken by this Campaign.

Conclusion

The evaluation showed that the Responsible Gambling Community Awareness campaign was successful in creating awareness of the responsible gambling practices amongst the target audience and in creating a response amongst the target group ranging from gaining their attention to provoking reflection and action in relation to their gambling.

Seventy-percent of responses in the post-campaign evaluation indicated the target audience could identify with and relate to the campaign messages. In addition, the key themes of responsibility and control were well understood by the target audience. The campaign was seen as attention grabbing, likeable and had a clear message with very low rates of misunderstanding.

The strong evaluation results indicate that it is important for social marketing campaigns to engage in rigorous target market selection and market research with the chosen audience to determine the most effective messages. In addition the development of an integrated communications campaign, utilising a variety of media, has also been shown to be an effective strategy which has delivered a positive return. Most importantly the Responsible Gambling Community Awareness campaign has demonstrated that focusing on trying to prevent people becoming problem gamblers as well as intervening before gambling becomes a problem is a strategy that has the potential to have far reaching benefits, by trying to improve health across populations and attempting to reduce the prevalence and burden of gambling problems on individuals, their families and the wider community.

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Queensland Government, Brisbane.

University of Queensland (2003) *Problem gambling in non-English speaking background communities in Queensland: A pilot study* Community Service & Research Centre, the University of Queensland, Ipswich.
ABSTRACT

The Productivity Commission, in its report, Australia’s Gambling Industries (1999), looked at the benefits of making greater and more comprehensive information available to players, with regards to harm minimisation.

Korn, Gibbons & Azmier (2003) identifies that a public health approach focused on prevention and early intervention should differentiate between concepts of healthy and unhealthy gambling behaviour. Healthy gambling entails informed choice on the probability of winning, a pleasurable gambling experience in low risk situations and wagering in sensible amounts. Healthy gambling enhances a gambler’s state of well being. Conversely, unhealthy gambling refers to various levels of gambling problems.

The Queensland Responsible Gambling Strategy identifies that a priority for responsible gambling is ensuring that gambling environments are safer and more supportive for consumers through consumer protection measures. The Responsible Gambling Code of Practice focuses on the environment in which gambling takes place and an emerging area of importance includes ensuring that the gambling consumer:

- is provided with adequate and meaningful player information on their gambling product; and
- is presented with responsible gambling messages which support players in maintaining control.

This project focused on how best to provide information to regular gamblers in a way that enhances healthy gambling and seeks to minimise unhealthy gambling activity. It intended to identify how best to provide meaningful player information (eg. odds of winning) and responsible gambling messages to Electronic Gaming Machine players. The research provided recommendations on channels of communication, communication messages and the information that best sustains responsible gambling activity.

Introduction

The Productivity Commission, in its report, Australia’s Gambling Industries (1999), looked at the benefits of making greater and more comprehensive information available to players, with regards to harm minimisation. In summary, the Productivity Commission recommended that the following measures would be beneficial:
A. The availability of better information, about the price of playing gaming machines, which include:
   - a simple system of informing consumers about the loss rates on machines; and
   - an indication of the likelihood of key payouts on the payout tables on the machines. (16.3 Basic Consumer Information – page 16.21); and

B. Information about how gaming machine games work, with the most frequent misunderstandings about games and the nature of random play featuring in an easy to read message format.

The Queensland Office of Gaming Regulation (QOGR) examined a number of technology based options for the incorporation of consumer protection measures aimed at reducing the risks to gamblers in a cost effective manner while ensuring the vast majority of the community can continue to enjoy gambling as a recreational activity. QOGR canvassed a number of technology based enabling mechanisms designed to provide information and assist gamblers in maintaining control in an effort to prevent or minimise gambling problems. As part of this process a range of formats for the presentation of information on odds of winning have been reviewed as has the possibility of utilising the second screen function on electronic gaming machines which could deliver the information.

In 2004, the Independent Pricing and Regulatory Tribunal of New South Wales (IPART) released its report on the effectiveness of various existing and proposed measures designed to minimise gambling related harm. IPART recommended that the display of odds of winning should be continued. In addition the IPART review stated that legislated responsible gambling messages on gambling products should be presented in a visible and consistent fashion. The NSW government (2005) has stated that information related to odds of winning and responsible gambling messages will be considered as part of an overall communications review.

The Queensland Responsible Gambling Strategy (2002) identifies that a priority action area for responsible gambling is ensuring that gambling environments are safer and more supportive for consumers through consumer protection measures. In 2002, Queensland launched a critical element of its consumer protection initiative, the Responsible Gambling Code of Practice, which focuses on the environment in which gambling takes place. An emerging area of importance in gambling consumer protection includes:

- ensuring that the gambling consumer is provided with adequate and meaningful player information on their gambling product; and
- ensuring that the gambling consumer is presented with responsible gambling messages targeted at low and moderate risk gamblers (in accordance with the Responsible Gambling Communication Strategy).

The Strategy also identifies that intervening prior to the display of problem gambling behaviours and preventing problem gambling in the first instance are key risk reduction strategies. A focus on prevention and early intervention should differentiate between concepts of healthy and unhealthy gambling behaviour. Healthy gambling entails informed choice on the probability of winning, a pleasurable gambling experience in low
risk situations and wagering in sensible amounts. Healthy gambling enhances a gambler’s state of well being. Conversely, unhealthy gambling refers to various levels of gambling problems. This project focused on how best to provide information to regular frequent gamblers in a way that enhances healthy gambling and seeks to minimise unhealthy gambling activity (Korn, Gibbons & Azmier 2003).

**Research Objectives**

To ensure alignment with the direction adopted by the Responsible Gambling Communication Strategy the research objective was to evaluate how best to provide low and moderate risk electronic gaming machine (EGM) players with:

1. meaningful and effective player information (eg. odds of winning), enabling them to make informed gambling decisions; and

2. effective responsible gambling messages.

The outcome of the project will provide information on preferred channels of communication, styles of communication and the information that has the potential to best sustain responsible gambling activity.

**Target Audience**

The Queensland Household Gambling Survey (QHGS) 2001 sought to estimate the prevalence of problem gambling and gambling risk in the Queensland community. The survey effectively segments the Queensland population into relative risk groups ranging from non-gambling and non-problem gambling through low risk, moderate risk and problem gambling. The QHGS identified approximately 10.88% of the adult Queensland population or 287,000 people could be categorised as low to moderate risk gamblers. It was estimated that 0.83% of the Queensland population or 22,000 people, experience problem gambling (Queensland Government 2002).

As a result of the QHGS, the Responsible Gambling Communication Strategy was developed to present a continuum of messages, ranging from those based on an early intervention approach (targeting low to moderate risk gamblers) - to messages which provide information on where to get help and support for people experiencing gambling problems.
This research project also targeted low to moderate risk gamblers as its key audience sector. This group was selected because of their levels of prevalence amongst the gambling population, their regular engagement with gambling activities and the potential for responsible gambling messages to effect behaviour changes.

**Research Methodology**

In undertaking this research QOGR formed a partnership with International Gaming Technologies (IGT). IGT undertook all the programming requests for screen imagery, message displays, session tracking mock ups and player information displays that were used in Phase One of the research. They also provided the researchers with access to their showroom facility where the Phase Two research was undertaken on real gaming machines in a simulated venue environment an improvement over the lab environment which would have had to be utilised without their assistance.

Phase One of the research involved qualitative depth interviews with 20 people from the target group, utilising computer mock-ups of EGM screens. Depth interviews took place in Brisbane, Toowoomba and Cairns from August 24 to September 8, 2004.

The interviews sought feedback on:
- perceptions of communication channels – on screen and in-venue, areas of placement and timing of placement – for both messages and player information;
- appeal of message tone – positive vs negative;
- types of messages – test messages derived in communication strategy research;
- awareness of any current messages displayed in venues and on machines;
- feedback on understanding of proposed messages/player information;
- appeal of proposed messages and player information (eg. relating to odds); and
- knowledge and use of second screens.

From the information provided in the depth interviews, quantitative testing was undertaken with 200 people from the target group. This testing took place between 15 and 23 January 2005, in the International Gaming Technologies showroom in Murrarie, and utilised real gaming machines that had been programmed for the research.

Focus group participants were questioned in regard to:
- appeal and awareness of messages displayed on screen using current EGM functionality;
- appeal of various message placements on machines;
- appeal of alternative functionality e.g. full screen messaging;
- the use of second screen technology – knowledge of availability, potential for use;
- timing of message display; and
- different formats of displaying information (eg. related to odds of winning, return to player and player activity).
Key Findings

Message content and tone

Twenty messages were shown to participants in the depth interviews. These were grouped into messages that focused on control, setting limits, remembering family and friends and gambling as entertainment.

Messages focusing on control were shown to be more relevant to males, whilst messages focusing on family and friends appealed more to women. Limit messages appealed to both genders.

Ten messages were short listed from the qualitative phase for quantitative testing.

1. Responsible gamblers don’t chase a win.
2. Are you gambling with more than your money?
3. Responsible gamblers stick with limits
4. Don’t let the game play you. Gamble Responsibly
5. Know your limits. Don’t gamble beyond your means.
7. Responsible gamblers are in control
8. Think of the people who need your support. Gamble responsibly.
9. Gamble for the fun of it, not for the money. Gamble responsibly.

The ‘Empathy, Persuasion, Impact, Communication’ (EPIC) framework, a proven research approach for advertising and campaign evaluation was utilised to determine audience responses to the 10 shortlisted messages. This framework determines the effectiveness of messages based on one or more of the following four things:

- **Empathy**: I got involved in this advertising; it appeals to me personally; and I like the way the advertising puts the message across.
- **Persuasion**: This advertising will influence people to behave differently when gambling; and This advertising will encourage people to consider their approach to gambling.
- **Impact**: It stands out; it’s different to other advertising for this sort of thing.
- **Communication**: It’s easy to follow or understand; and This advertising has some useful or important information for people.

Applied to on-screen messaging, EPIC evaluated the effectiveness of each message across the framework’s criteria, which were carefully adapted to suit the specific nature and requirements of this type of advertising.

Results of the surveys indicated that at least seven of the messages were effective in some capacity in terms of impact, empathy and persuasion. All these messages scored extremely well in terms of communication with little difference between any of the messages consequently these figures are not recorded in Table One.
Table One – Audience assessment of messages

<table>
<thead>
<tr>
<th>Message</th>
<th>Impact</th>
<th>Empathy</th>
<th>Persuasion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsible gamblers don’t chase a win.</td>
<td>53%</td>
<td>77%</td>
<td>42%</td>
</tr>
<tr>
<td>Responsible gamblers stick with limits</td>
<td>38%</td>
<td>67%</td>
<td>66%</td>
</tr>
<tr>
<td>Don’t let the game play you. Gamble Responsibly</td>
<td>40%</td>
<td>69%</td>
<td>69%</td>
</tr>
<tr>
<td>Set yourself a limit. Don’t go over it. Gamble responsibly.</td>
<td>50%</td>
<td>60%</td>
<td>75%</td>
</tr>
<tr>
<td>Responsible gamblers are in control</td>
<td>28%</td>
<td>54%</td>
<td>54%</td>
</tr>
<tr>
<td>Think of the people who need your support. Gamble responsibly.</td>
<td>30%</td>
<td>83%</td>
<td>58%</td>
</tr>
<tr>
<td>Gamble for the fun of it, not for the money. Gamble responsibly.</td>
<td>48%</td>
<td>74%</td>
<td>79%</td>
</tr>
</tbody>
</table>

The key criteria for message success were:

- Messages that took a positive approach tended to perform more strongly, in particular reminders relating to the ‘fun’ of the game.
- Messages that are short, sharp and to the point achieve better in terms of communication, impact and persuasion.
- Messages that are less outwardly positive or which refer to gambling beyond a person’s means are perceived as targeting problem gamblers.
- Messages that have some personal focus, using the term you or your had greater appeal.
- The phrases “Gamble responsibly” or “Responsible Gambling” has a measure of impact on its own. Forty-nine percent (49%) of all respondents who recalled a message recalled a generic responsible gambling message.

Message position, size and timing

Placing the message at the top of the screen had higher recall, but middle of the screen had higher impact. Depth interview results indicated a higher preference for messages in the centre of the screen.

Messages displayed on Gaming Machine screens were equivalent to a twenty-eight point font size. Messages need to stand out on the screen in order to compete with busy nature of the game graphics.
Messages displayed at random time intervals (averaging appearance every 5 minutes) had higher recall and higher impact. With 59% of respondents indicating that messages appeared the right amount of times. The speed of message display needs to be consistent with average reading speeds.

Communication channel

Low to moderate risk gamblers are open to and even welcoming of on-screen messages on gaming machines.

The target audience was questioned regarding the use of plasma screens for message display. There was no negative response to this suggestion but audience members believed that there would be minimal impact due to the peripheral nature of this medium.

The awareness of second screen facilities on EGMs was virtually zero amongst both depth interview and quantitative testing participants. Audience members were not aware of its existence and had never used the facility to access game rules.

Player information & Session Tracking

There was positive audience reaction to player information displays (PIDs) and session tracking facilities.

Session tracking was seen as a facility that would help people maintain their responsible gambler status. Interview participants were most interested in having an on screen clock to keep them aware of the concept of time and the majority indicated that they would like some facility to enter a dollar spend limit at the beginning of a session and then having an on screen reminder appear when this limit was reached.

Sixty percent (60%) of respondents expressed that they would use the tracking option with the majority indicating they wanted information such as time and money spent and amount won and lost. More than half of the respondents (56%) wanted session tracking to be automatically linked to their player loyalty cards. However, retirees were less likely to indicate that they would utilise the session tracking facility.

Study participants were shown five different player information displays as part of the depth interviews (see Attachment A). Based on audience reaction in the depth interviews only Examples A and B were utilised in the quantitative testing.

Player Information Displays were seen as being potentially effective in providing EGM players with information to aid in their playing decisions. Seventy-five per cent (75%) of respondents indicated that this was how they would make use of the information.

The most powerful reaction from audience members in the depth interviews was gained for the narrative presentation (Example B) of game information as it was easier to understand and was more engaging. Forty-four percent (44%) of focus group participants selected this format as the most effective. Probing of depth interview participants
revealed that players were more likely to interpret the statistical information (Example A) in ways that were incorrect e.g. misunderstanding return to player information and the meaning of the odds. Therefore the statistical display of information was more likely to be misleading and lead to poorer decision making than the anecdotal format.

Seventy-seven per cent (77%) of focus group respondents stated that player information should be displayed on the poker machine itself using an information button facility. There were also sufficient positive responses to indicate that other communication mediums such as posters and brochures should be developed to raise awareness of PIDs and the information button facility on EGMs as a communication channel.

**Other Issues**

Focus group participants were questioned about other information they would like included as part of the session tracking. Respondents indicated that they were interested in information related to when the machine last paid out, total payouts, information on free spins and past machine performance. All of these issues confirm some level of cognitive distortion amongst the study participants.

**Conclusion**

The Player Information and Messaging project has produced high quality research findings, which represent a considerable improvement over previous research endeavours into this area of research. It also indicates that it is possible and desirable to undertake industry partnerships to deliver good research which can lead to evidence based policy and programs.

The research findings indicate that on-screen messaging and player information displays and the development of technologies for the provision of session tracking facilities would be received positively by the target audience. They also provide evidence for the development of other communication resources separate to gaming machines to raise awareness of EGMs as a communication channel and to attempt to manage some of the cognitive distortions that appear to be persistent with poker machine players.

**Bibliography**


Attachment A – Player Information Displays

Example A (used in depth interviews & quantitative testing)

<table>
<thead>
<tr>
<th>Name of Game</th>
<th>POLAR BEAR</th>
</tr>
</thead>
</table>

**Chances of Winning:**

**Top Five Winning Combinations**

<table>
<thead>
<tr>
<th>Winning Combination</th>
<th>Chances of Winning on a 1 line / 1 credit bet</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Polar Bears</td>
<td>1 in 9,765,625</td>
</tr>
<tr>
<td>4 Polar Bears</td>
<td>1 in 424,784</td>
</tr>
<tr>
<td>3 Polar Bears</td>
<td>1 in 315,490</td>
</tr>
<tr>
<td>3 Penguins</td>
<td>1 in 120,345</td>
</tr>
<tr>
<td>3 Seals</td>
<td>1 in 85,416</td>
</tr>
</tbody>
</table>

**Bottom Five Winning Combinations**

<table>
<thead>
<tr>
<th>Winning Combination</th>
<th>Chances of Winning on a 1 line / 1 credit bet</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Polar Bears</td>
<td>1 in 1,453</td>
</tr>
<tr>
<td>2 Penguins</td>
<td>1 in 247</td>
</tr>
<tr>
<td>2 Seals</td>
<td>1 in 107</td>
</tr>
<tr>
<td>3 Nines</td>
<td>1 in 56</td>
</tr>
<tr>
<td>2 Nines</td>
<td>1 in 10</td>
</tr>
</tbody>
</table>

**Long-term average return to player**

87.02%

**What you will spend**\(^30\):

Minimum (if playing 1 line at minimal bet) 17.4 cents per minute

Maximum (if playing all lines at maximum bet per line) $85.71 per minute

\(^{30}\) The figures quoted in the example assume no winnings on the part of the player – they represent the total amount bet over that particular period of time.
Example B (used in depth interviews & quantitative testing)

Maximum Prize

5 Polar Bears The most you can win is $10,000.

You will need to play all lines and make maximum bets on each line, ie. play all 20 lines at 25 credits a line.

You will need to spend $5 with each press of the button.

If you do this, you will spend on average $85.71 a minute or $5,142.60 per hour.

Even if you do this, your chance of winning the top prize is no better than 1 in 9,765,625.

Each spin is totally random so your chances of getting 5 Polar Bears on each spin is no better than 1 in 9,765,625. Your chances do not improve the longer you play.

Games are designed to make money for the venue and provide entertainment to you. You may get some small wins but you are unlikely to come out ahead or win the top prize of $10,000.

Even if you play this machine for 24 hours a day on 365 days of the year for 4 years, you are unlikely to come out ahead.
Example C (used in depth interviews only)

<table>
<thead>
<tr>
<th>Name of Game</th>
<th>POLAR BEAR</th>
</tr>
</thead>
</table>

**Average Bets per Win:**

<table>
<thead>
<tr>
<th>Top Five Winning Combinations</th>
<th>Average number of bets made per win, for a 1 line / 1 credit bet</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Polar Bears</td>
<td>9,765,624</td>
</tr>
<tr>
<td>4 Polar Bears</td>
<td>424,783</td>
</tr>
<tr>
<td>3 Polar Bears</td>
<td>315,489</td>
</tr>
<tr>
<td>3 Penguins</td>
<td>120,344</td>
</tr>
<tr>
<td>3 Seals</td>
<td>85,415</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom Five Winning combinations</th>
<th>Average number of bets made per win</th>
<th>Number of credits for line/1credit bet won</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Polar Bears</td>
<td>1,452</td>
<td>1000</td>
</tr>
<tr>
<td>2 Penguins</td>
<td>246</td>
<td>200</td>
</tr>
<tr>
<td>2 Seals</td>
<td>106</td>
<td>100</td>
</tr>
<tr>
<td>3 Nines</td>
<td>55</td>
<td>50</td>
</tr>
<tr>
<td>2 Nines</td>
<td>9</td>
<td>5</td>
</tr>
</tbody>
</table>

Long-term average loss 12.98%

What you will lose (ignoring any wins):

Minimum (if playing 1 line at minimal bet) 17.4 cents per minute

Maximum (if playing all lines at maximum bet per line) $85.71 per minute
### Example D (used in depth interviews only)

<table>
<thead>
<tr>
<th>Prize type by Symbol combination</th>
<th>Chances of the Symbol combination happening on a single play line</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Polar Bears</td>
<td>1 chance in:</td>
</tr>
<tr>
<td>4 Polar Bears</td>
<td>9,765,625</td>
</tr>
<tr>
<td>3 Polar Bears</td>
<td>424,784</td>
</tr>
<tr>
<td>2 Polar Bears</td>
<td>315,490</td>
</tr>
<tr>
<td></td>
<td>1,453</td>
</tr>
</tbody>
</table>

**Long-term average return to player**  
87.02%

**What you will spend:**

- **Minimum (if playing 1 line at minimal bet of 1 cent)**  
  17.4 cents per minute  
  **OR $10.44 per hour**

- **Maximum (if playing all lines at maximum bet per line)**  
  $85.71 per minute  
  **OR $5,142.60 per hour**

**Average**  
$34.11 per minute  
**Or $2,046.60 per hour**

---

**Name of Game**  
POLAR BEAR

**Chances of Winning:**

- **Prize value**  
<table>
<thead>
<tr>
<th>$</th>
<th>Chance of a prize happening on a single play line (including scatters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>1 chance in</td>
</tr>
<tr>
<td>More than 500</td>
<td>10,199</td>
</tr>
<tr>
<td>200 – 499</td>
<td>2,668</td>
</tr>
<tr>
<td>100-199</td>
<td>1,459</td>
</tr>
<tr>
<td>50 – 99</td>
<td>450</td>
</tr>
<tr>
<td>20-49</td>
<td>247</td>
</tr>
<tr>
<td>10-19</td>
<td>107</td>
</tr>
<tr>
<td>5-9</td>
<td>56</td>
</tr>
<tr>
<td>1-4</td>
<td>10</td>
</tr>
</tbody>
</table>
Example E (used in depth interviews only)

<table>
<thead>
<tr>
<th>Name of Game</th>
<th>POLAR BEAR</th>
</tr>
</thead>
</table>

**Chances of Winning:**

<table>
<thead>
<tr>
<th>Symbols</th>
<th>Chances</th>
<th>Prize</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Polar Bears</td>
<td>1 chance in: 9,765,625</td>
<td>$10,000</td>
</tr>
<tr>
<td>4 Polar Bears</td>
<td>424,784</td>
<td>$1,000</td>
</tr>
<tr>
<td>3 Polar Bears</td>
<td>315,490</td>
<td>$100</td>
</tr>
<tr>
<td>2 Polar Bears</td>
<td>1,453</td>
<td>$5</td>
</tr>
</tbody>
</table>

**What you will spend:**

*If you play 1 cent on 1 line, this will cost you 17.4 cents per minute or $10.44 per hour*

*If you play maximum of 25 cents on all 20 lines, this will cost you $85.71 per minute or $5,142.60 per hour*

Long-term average Return to Player 87.02%
EVALUATION OF PROBLEM GAMBLING SIGNS AND TAKEAWAY CARDS IN QUEENSLAND GAMING VENUES

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ABSTRACT

The Queensland Household Gambling Survey (QHGS) 2001 sought to estimate the prevalence of problem gambling and gambling risk in the Queensland community. The survey effectively segments the Queensland population into relative risk groups ranging from non-gambling and non-problem gambling through low risk, moderate risk and problem gambling.

As a result of the QHGS, the Responsible Gambling Communication Strategy was designed to present a continuum of messages, ranging from those based on an early intervention approach targeting low to moderate risk gamblers to messages which provide information on where to get help and support for people experiencing gambling problems.

Signs and takeaway cards in venues are an important component of this Strategy. Venues provide a vital communication channel and allow messages to be delivered to those people actively participating in gambling activities and who may be experiencing gambling problems. The current versions of the signs and cards were installed in Queensland venues in 2002.

In 2004, the Queensland Government commenced an evaluation of these in venue messages. Feedback was sought from people experiencing gambling problems in regard to message effectiveness and to inform new design concepts. Venues and Help services were also included regarding channels of communication and message placement. A summary of the key learnings from this research is provided herein.

Biography

Jane Reid is a Principal Policy and Research Officer in the Research and Community Engagement Division of the Queensland Office of Gaming Regulation. She currently manages the development and implementation of communication campaigns targeting at risk and problem gamblers as well as the Responsible Gambling education program.

Introduction

Regulation and probity, harm minimisation and community benefit are the basis of a balanced strategic approach to gambling policy in Queensland. Together, they allow the
governments to address the potential harms of gambling, while managing the industry to provide safe recreation, entertainment and the resulting economic return to the community.

The Queensland Responsible Gambling Strategy (2002) is based on a public health approach which encompasses a set of harm minimisation strategies focusing on prevention, protection and rehabilitation initiatives. The Responsible Gambling Communication Strategy forms part of these harm minimisation responses. It was designed to present a continuum of messages, ranging from those based on a prevention/early intervention approach targeting low to moderate risk gamblers to messages which provide information on where to get help and support for people experiencing gambling problems.

**Target Market**

Determinants of health occur at a population level and comprise a range of psychosocial and environmental factors including income, employment, poverty, education and access to community resources, as well as demographic factors. These determinants translate into risk and protective factors for population groups and individuals. Risk factors increase the likelihood that a problem will develop, whereas protective factors reduce this likelihood (NMHS 2000: ix).

Gambling risk factors are those factors associated with a greater potential for problem gambling. Risk factors are not predictors of gambling problems, but indicators of vulnerability. The more risk factors an individual is subject to or the more influential an inherent risk factor is for a given individual, the more vulnerable an individual is to developing problem gambling behaviour. Similarly, protective factors do not shield an individual from gambling problems but will help to reduce their vulnerability to experiencing gambling problems. In terms of gambling policy, strategies that are targeted at prevention, protection or early intervention draw on knowledge about risk factors and protective factors with a view to minimising the impact of the former and enhancing the effectiveness of the latter. In addition they inform efforts about how best to develop interventions which have the potential to lead to more effective patterns of help seeking as well as care and treatment programmes.

The Queensland Household Gambling Survey (QHGS) 2001 (2002) sought to estimate the prevalence of problem gambling and gambling risk in the Queensland community. The survey effectively segments the Queensland population into relative risk groups ranging from non-gambling and non-problem gambling through low risk, moderate risk and problem gambling. The results of the survey provided direction to the selection of the various target markets for the Responsible Gambling Communication Strategy by providing a broad profile of groups that may be at risk of developing a gambling problem or experiencing gambling problems and identifying them on the basis of demographics as well as patterns of gambling activity.

The survey results identified approximately 10.88% of the adult Queensland population or 287,000 people could be categorised as low to moderate risk gamblers. It was
estimated that 0.83% of the Queensland population or 22,000 people, experience gambling problems (Queensland Government 2002: 7). The most recent prevalence study conducted in 2003-2004 showed that the prevalence rates for these groups have not changed significantly.

In the 2003-04 Queensland Household Gambling Survey (as yet unpublished), the problem gambling group reflected the wider Queensland adult population but there is an over representation of persons completing their education at Year 10 and an under representation of retirees. There is a bias towards males and to people who have never married or are in a live-in/de facto relationship but there is not a statistically significant overrepresentation of these people in the problem gambling group. This is a slight change from the 2001 QHGS which showed a disproportionate representation of men (70%) and a predominance of problem gambling prevalence in the 18-34 age bracket (55%). The change in this profile will be used to inform the imagery used in any new concepts.

Most importantly, the 2003-04 QHGS showed that the problem gambling group gamble on many activities and they gamble heavily. Their participation rates are more than double and close to triple that of the adult Queensland population for gaming machines, horse and greyhound racing and casino table games. Their participation rate for keno is more than 4 times that of the general population.

**Signs in Venues**

Section 28 of the *Gaming Machine Regulation 2002* requires gaming machine licensees to have signage displaying services available to problem gamblers. In addition, Practice 1 of the *Responsible Gambling Code of Practice (2002)* states that information about the potential risks associated with gambling and where to get help for problem gambling should be prominently displayed in gambling areas and near ATM/EFTPOS facilities.

Coinciding with the launch of the *Code of Practice* in 2002, “where to get help” signs and takeaway cards (Figure 1) were installed in gambling venues in Queensland. The signs and cards are displayed via convenience advertising in male and female bathroom facilities as well as near cashiers and ATMs.
The Code of Practice also requires venues to place an information display board (Figure 2) in their gaming rooms. This display board details the venue’s financial transaction policy and indicates the availability of information relating to responsible gambling policies, exclusion provisions and complaint’s resolution. They were also installed in gambling areas in 2002.

Since 2002, access to Gambling Help services in Queensland has been improved through a wider distribution of services. The Queensland Government committed more than $11 million over three years which:

- introduced a 24 hour 7 day state-wide Gambling Helpline;
• expanded Gambling Help services from 6 to 13 full time services in metropolitan, regional and remote locations; and
• established a Gambling Help network to coordinate community education, develop resources and provide training to Gambling Help staff.

An important referral point for the Gambling Help services is the signs and cards displayed in venues.

In December 2003, the former Department of Families (now Department of Communities), raised concerns that the current signs and cards may have become ineffective as gambling patrons have become so used to seeing them, they no longer read the messages. The Department of Communities was concerned that message fatigue would potentially translate to fewer people with gambling problems or who are affected by another’s gambling problem, seeking help from the Gambling Helpline and local Gambling Help services.

The September 2003 quarterly figures provided by the Gambling Helpline show that 1200 people contacted the helpline as opposed to 1655 in the same period in 2002. The high contact numbers in the 2002 September quarter correspond to the launch of a communication campaign which promoted the Helpline. In the overall period 2002-2005 there has been a 19% decline in service contact overall. Referrals to the Helpline, received as a result of the takeaway cards, declined to 15% in 2005 from 23% in 2002. Signs contributed 13% of Helpline referrals in 2005 a decline of 5% from 2002 referral levels.

In addition to this decline in call numbers, anecdotal evidence gathered from market research participants indicated that the current version of signs and cards was no longer effective in delivering the messages they were designed for. The reduction in calls accompanied by this qualitative data appeared to support the Department of Communities’ assertion about message fatigue.

Consequently, an evaluation of the current signs and cards commenced in 2004 and there was a decision made to develop a range of new concepts to be tested in the marketplace. This evaluation project built upon the knowledge already gathered in market research and concept testing undertaken as part of the Responsible Gambling Community Awareness Campaign’s development. The results of this evaluation and the other research will then be used to develop recommendations for any program to refresh venue signs.

Research objectives

The objectives of this research project were threefold:
1. Measure audience recall of the existing signs and cards;
2. Determine the effectiveness of existing signs and cards in raising awareness of problem gambling and translating awareness into action; and
3. Gather information which could be used to develop refreshed communications messages.
Methodology

Prior to the launch of the Responsible Gambling Community Awareness Campaign in April 2005 research was conducted to collect baseline data for comparison purposes for the post-campaign evaluation. This baseline study surveyed 2258 people, all of whom had agreed to be recontacted after the 2003-2004 Household Gambling Survey. One component of the research asked people about their level of recall regarding current messages promoting services to gamblers.

Parallel to this quantitative research component, qualitative research was also being conducted. Stage 1 of this research involved 12 depth interviews with problem gamblers, who had sought help, in Brisbane and Toowoomba. The depth interviews covered:

- Background and gambling behaviour;
- Recall of current communications;
- Perceptions of current signs; and
- Ideas for new messages.

Stage 2 of the qualitative research involved testing new concepts and 11 depth interviews were conducted with people who had screened as potentially experiencing problems with their gambling. The interviews were conducted in Brisbane, Townsville and Toowoomba and focused on:

- Background and behaviour;
- Perceptions of new concept ideas; and
- Ideas for refinement.

Due to the small numbers of people participating in the qualitative study the results are indicative rather than representative of all people experiencing problems with their gambling. However, as the information provided was relatively consistent across all participants the researchers believe that their findings probably have validity with a wider group of people.

Audience recall

Half of the respondents in the baseline Awareness Campaign survey (50.6%) reported that they were aware of current messages. This awareness was more likely amongst male respondents and amongst people who lived in the Brisbane metropolitan region. The lowest level of recall was amongst the under 25 year old age group and the over 65’s. Sixty five percent (65%) of males and 53% of females in the 35-54 age group were aware of current messages.

When analysed by gambling group it was revealed that there was an increasing level of awareness of signage amongst the higher risk groups. Just over 63 percent (63.6%) of the low risk group were aware of current messages. This increased to 71.9% for the moderate risk group and rose to 85.2% for the problem gambling category.

When asked what medium they recalled for messages, venue signs achieved the highest level of recall (34.4%). Only 5.9% recalled the takeaway cards and 6.6% recalled
brochures in venues. Men were more likely to notice signs in venues (14.4%) than women (7.7%). But women were more likely to take a card in a venue (8.2%) than men (4.2%).

In the qualitative research the “where to get help” sign (Figure One) had a high degree of spontaneous recall but the takeaway cards were virtually unknown amongst this group. The information display board (Figure 2) had virtually no recall amongst the interviewees even when prompted.

**Problem Gambling Behaviours**

From the qualitative research the people interviewed were asked about their gambling:

- Why they gambled?
- How often they gambled?
- How long was a gambling session?
- Where they gambled?
- What were some of the effects of their gambling?
- What were the triggers for acknowledging they had a problem? and
- How had they sought help?

For the people within this group gambling was an escape from reality and there was always the “chance” of winning. Some people volunteered that they had an addictive personality. They gambled whenever money was available and the length of their gambling session was determined by how long the money lasted. Most reported that they gambled alone and tried to find a place where they wouldn’t be recognised.

All the participants reported that their gambling had affected the lives of their family and friends and many reported that they had lost family and friends as a result of their gambling. They all reported that they had lost financially. Some people had lost their house, their physical possessions and/or their employment. Additionally they reported that had lost their self-respect, integrity and felt a lack of self worth as a result of their gambling.

Participants reported that it was “hitting rock bottom” which was the trigger for acknowledging that they had a problem with gambling. “Hitting rock bottom” ranged from acknowledging the effect on their family, losing their home, self-realisation that they did not like the life they were living and in the most extreme case when they were sent to prison. All of the interviewees stated that until they had reached this point though they were in denial about their problem with gambling.

Interviewees reported that they were aware of Gambler’s Anonymous and Lifeline and sought contact information from the telephone book as the first stage of help seeking. Some people reported that a friend or family member had provided them with the number of the Gambling Helpline or local Gambling Help service. Many of the people interviewed reported that they currently have self-exclusions in place but they also stated that they did not exclude from all venues just in case they needed to gamble.
Audience perceptions of existing signage

While the “where to get help” sign had high levels of spontaneous recall amongst depth interview participants there was limited comprehension of the meaning and connection between the words and images. People reported that they interpreted the sign to mean that they could win the house and car shown on the poster and other people stated that they felt the message was relevant only to those gamblers with dependents. Regardless of their comprehension most cite that the poster doesn’t prompt any action even if the question format gains their attention and the Helpline number was also deemed to be too small.

In addition, respondents indicated that it was often too dark in venues to notice posters of this type and that the design struggled to compete with the entertaining and busy atmosphere of a gambling venue. It was also reported that they had seen the poster so many times that it no longer gained their attention.

Despite this negative feedback, interviewees felt the poster had raised their awareness of the existence of the Gambling Helpline and they used that information to find the number in the telephone book rather than writing it down or taking a card when they were in a venue. Some suggested that friends and family also noticed the sign and brought them to the attention of the gambler.

Fewer people recognised the takeaway card when provided with an example. Feedback from the interviews stated that gamblers were unlikely to take a card willingly because they are unlikely to admit they have a problem. Additionally they would only take a card if they were available in an inconspicuous place and they were not likely to be seen. Many felt the card was more likely to prompt action than the sign and they noted that the card could be given to the gambler by a friend or family member.

While recall of the information display board (Figure 2) was virtually zero, interviewees stated that the message was more to the point but the statement did not provide any details of what might be constituted as a problem. They felt that the sign had no influence on them identifying that they had a gambling problem rather it just gave information. They felt that giving the Helpline number more prominence was positive but the sign felt cold and had less impact because there were no pictures. All participants stated that they would not ask for any of the additional information listed on the sign.

Moving forward

Regardless of audience perceptions of the impact of the current venue based communications all participants saw signage as a positive thing. Respondents affirmed that effective messaging needed to be specific and represent real situations that a person with a gambling problem could relate to. As a caveat to the need for specific messages they also needed not to be too specific otherwise it was easy for people to rationalise that this particular message did not relate to them. As well as potentially reducing message wear out, developing a variety of messages within an overarching theme has the ability to display a range of stories which potentially work with a wider group of people.
Messaging

Interview participants stated that there needed to be a range of messages presented making it easier to appeal to people experiencing different things. Messages also needed to be simple and easy to understand. Taglines needed to grab their attention in the busy environment of the venue and provide a strong call to action. Messages were believed to have no relevance if they lectured or presented ideas that problem gamblers felt were not true, e.g. that you can’t win and that you shouldn’t chase losses.

Narratives, i.e. presenting the story of a problem gambler, had some appeal but most people stated they wouldn’t stop to read the whole story when they were in the gaming area. Showing images and stories of people affected by a person’s gambling received a mixed reaction. In both instances, if the story was too specific people tuned out because they were able to claim it wasn’t relevant to their circumstances. If the story focused on the past it seemed to indicate there was no hope. Interviewees stated that messages of this type would be more effective for significant others and might prompt them to suggest getting help to the gambler.

To determine if the early intervention campaign would have any relevance to this target market the problem gambling group were asked about their impressions of the phrase ‘responsible gambling’. They saw no relevance or meaning in this phrase and felt it did not apply to them. This is in strong contrast to the market research conducted with low to moderate risk gamblers, for the Responsible Gambling Community Awareness campaign, where the phrase ‘responsible gambling’ resonated very strongly in their minds and provided a strong impetus towards controlled gambling activity. Interestingly, the low to moderate risk gamblers researched in the campaign’s development saw no relevance in the “where to get help” signs and cards. They stated categorically that these messages were targeted at people experiencing gambling problems and had no meaning for them.

This clear demarcation would seem to highlight that it is not possible to have a campaign that talks to all gamblers because the different groups have very different perceptions of their gambling activity and the relevance of messages for their personal circumstances. Consequently, it would not be possible to utilise one campaign to prevent people becoming problems gamblers and hope that it will be effective with the a group of people already experiencing gambling problems. Conversely, a campaign targeted at problem gamblers and urging them to seek help will not be effective with people in the low to moderate risk categories. Therefore, government’s and community groups seeking to develop social marketing campaigns centred on gambling should clearly determine their target audience and speak to them according to their specific needs.

Imagery

Respondents stated that imagery needed to be more provocative, as well as showing ‘real’ people and images relevant to the problem gamblers. In particular, imagery needed to portray negative effects on the family and the breakdown of family relationships, effects on lifestyle/employment and the financial consequences associated with problem gambling.
From an artistic perspective images should be able to stand out from the busy environment of the gambling venue which are not often brightly lit but also have a very bright, busy decor. Black and white images give the impression of a dead end with no way out of the problem.

Any fonts used need to provoke attention and interest and not appear too corporate. The font added to the impact of the image if they had an ‘edge’ to them and created a dynamic feel to a static representation.

**Helpline number**

All people involved in the qualitative research stated that the Gambling helpline should be prominently displayed on any posters and the call to action should strongly link to the calling the Helpline. People stated that they would like more information on the type of assistance they would receive if they contacted the Helpline and they wanted clear information that the help was provided free of charge and was available 24 hours a day, 7 days a week. The majority of respondents indicated reservations about contacting a number that they perceived was run by the government thus highlighting the need to show that the government funded but did not run the Gambling Helpline.

**Takeaway cards**

While people recognised that the takeaway cards could be useful there was minimal interest in actually taking a card. There was interest if the card contained a simple test of warning signs. Most participants felt that a significant other would be more likely to take the card and present it to the gambler away from the venue as a prompt to seek help.

A number of other ideas were presented by interviewees as possible ways of conveying this information in a less obvious way. For example, providing information and contact details for the Helpline on ATM receipts and TAB betting slips, Lotto and instant scratch tickets, coasters, bottle shop bags, beer glasses, bar mats as well as on keno screens, as a screen saver on poker machines and near the poker machines note acceptor.

**Conclusion**

Overall, existing venue posters were shown to create some awareness but in their current form have little ability to change both gambling behaviours and help seeking patterns. The takeaway cards have also been shown to have a restricted usefulness. The audience has very poor understanding of the meaning of the “Are you gambling with more than your money?” message and the imagery used lacks relevance. The information display board, while clearer, does not connect emotionally with the group and is seen to merely provide information which the audience is largely disinterested in.

Research participants have all stated that they need to hit ‘rock bottom’ before they will take action to get help for their gambling problem. As such they acknowledge the need for signs showing where they can go for help but there is a clear need for more provocative signage which gains attention and which talks directly to the problem.
gambler in terms of their experiences and circumstances. Signage needs to be attention grabbing and it needs to present its message quickly and effectively.

Prior to any selection of new concepts for venue signage quantitative testing will be undertaken with the target audience to ensure that the campaign with the most resonance has been chosen.

**Bibliography**


THE FOUR E'S 1-YEAR LATER: FORECASTING THE DEVELOPMENT OF GAMBLING PROBLEMS

Dr Matthew J Rockloff & Ms Victoria Dyer

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ABSTRACT

The Four E's instrument is a 40 item Likert-scale measuring 4 psychological traits contributing to risk for problem gambling, including: Escape, Esteem, Excess and Excitement. A phone survey (N = 2,577) and select 1-year follow-up assessments (N = 402) tested the ability of the Four E's instrument (Rockloff & Dyer, 2006) to prospectively identify persons who would later develop gambling problems. Two groups of participants were selected for the 1-year follow-up interviews, including 1) persons who had gambling problems, high-risk alcohol abuse problems, and/or substance abuse problems (abuse group); and 2) a random selection of other persons from the original survey (random group). The results indicated that the "Excess" trait, which measures impulsive behaviour, was predictive of increases in gambling problems for both groups over the 1-year period.

Introduction

There is a critical need for new research that addresses in a systematic and quantitative approach the psychological determinants of problem gambling behaviour. Although several theoretical approaches have been offered to explain problem gambling, including for instance Jacobs' General Theory of Addiction (1988), there is little work that directly links theory with a rigorous quantitative measures or methodologies that make these theories falsifiable.

The Four E's of problem gambling (Rockloff & Dyer, 2006) is a new theoretical orientation linked to a Likert measurement scale. The Four E's constructs of Escape, Esteem, Excitement and Excess were discovered and developed in consultation with focus groups of Reno area members of Gamblers Anonymous. In short, Escape is the desire to avoid demanding/aversive social interaction; Esteem is a motivation to avoid negative self-appraisal; Excess is the failure to inhibit impulses that are self-destructive; and lastly, Excitement is seeking action to relieve boredom. Each of these 4 factors facilitates problem gambling behaviour. These 4 constructs have been operationalized in a scale developed to distinguish between problem gamblers and non-problem gamblers without any explicit reference to gambling activity. Rockloff and Dyer (2006) outline supportive evidence for the validity of the Four E's scale. The 4Es have already demonstrated key properties, including: 1) high internal consistency (reliability of α = .90), 2) the ability to predict concurrent gambling problems (people who score in the top 5% on the scale are 9 times more likely to also have gambling problems), 3) specificity: the Four Es scale distinguishes people with gambling problems from people with alcohol...
abuse problems. This present work adds to this body of evidence by reporting on a follow-up survey linking the Four E's to increases in problem gambling behaviour over time.

The current project involved re-interviewing a selection of subjects from the original survey to help further validate the Four E's scale. These re-interviews served two primary purposes: 1) the follow-up survey was important for demonstrating the test-retest reliability of the scale, and 2) the re-interview allowed for a test of whether the Four E's constructs are able to predict increases in gambling problems over time. This second property is important, because it helps to demonstrate that the Four Es are not epiphenomenal, but are at least supportable as possible causative factors in producing problem gambling behaviour.

Method

Participants

As previously reported by Rockloff and Dyer (2006), a Queensland, Australia phone survey of 2,577 persons, 940 males and 1,637 females, with ages ranging from 18 to 100 years ($M = 46.1$, $SD = 16.2$) was conducted during October and November 2003. The cultural identities of the respondents included: Australian (2,161 or 83.9%); English (149 or 5.8%); Indigenous (46 or 1.8%); and others identities (221 or 8.6%) which each represented 1% or less of the sample.

This report compares the results of this first survey (Rockloff & Dyer, 2006) to a select 1-year follow-up survey of 402 persons, including 242 female and 153 male participants aged 19 to 87 ($M = 46.8$, $SD = 15.6$).

Materials

Both the original and follow-up surveys included the Four E's scale (Rockloff & Dyer, 2006), the Alcohol Use Disorders Identification Test (AUDIT, Saunders, Aasland, Babor, De La Fuente, & Grant, 1993), the Severity of Dependence scale (Gossop et al., 1995), and the Canadian Problem Gambling Index (CPGI, Ferris & Wynne, 2001).

Design and Procedure

Households for the first survey were selected in a stratified random sample from phone book records across the 11 regions in Queensland, Australia. Participants were selected at random from an enumeration of adults aged 18 and over living within each household. Interviews of 2,577 persons in the original survey took place between July and October 2003 representing a 53.2% completion rate.

The second survey selected two groups of persons from the original survey for 1-year follow-up interviews conducted between July and August 2004. The first group selected for reinterview, the so-called "abuse group," included all persons scoring at high-risk on the Alcohol Use Disorder Identification Test (AUDIT, 16 or greater, Saunders et al., 1993), and/or the Severity of Dependence Scale (5 or greater, Gossop et al., 1995), and/or
those who had at least some gambling problems on the Problem Gambling Severity Index (CPGI, 1 or greater, Ferris & Wynne, 2001). The second set of interviewees, the so-called "random group," was a 500 person random selection of the remaining participants from the original survey. The re-interviews included 82 persons in the abuse group (52.6% completion rate, 44 male and 31 female), and 320 in the random group (64.0% completion rate, 109 male and 211 female).

Results

Psychometric Properties

The Cronbach Alpha reliability of the 40 item Four E's scale was high at $\alpha = .90$ in the original survey and $\alpha = .92$ in the follow-up interviews. Moreover, the 1-year test-retest reliability for the 40 item scale was high at $r(390) = .70, p < .001$.

The Cronbach Alpha reliability of the 9 item scoreable CPGI was $\alpha = .89$ in the original survey and $\alpha = .87$ in the follow-up. Test-retest reliability for the scoreable CPGI was high at $r(389) = .75, p < .001$. The Cronbach Alpha reliability of the 10 item AUDIT was $\alpha = .81$ in the original survey and $\alpha = .79$ in the follow-up. Test-retest reliability was very high at $r(385) = .84, p < .001$. Lastly, the 5 item Severity of Dependence scale had a Cronbach Alfa reliability of $\alpha = .80$ in the original survey and $\alpha = .93$ in the follow-up, while test-retest reliability was low at $r(388) = .19, p < .001$.

Table 1 shows a sample items from the Four E's scale. By design, none of the items on the scale make specific reference to gambling activities, but instead measure psychological predisposition to risk for developing a problem gambling disorder. The full 40 items are reported by Rockloff and Dyer (2006), and the scale is free for public use with appropriate citation.
### Table 1

*Sample items from Four E's instrument*

<table>
<thead>
<tr>
<th>Traits</th>
<th>Sample Items</th>
</tr>
</thead>
</table>
| Escape   | I would like to just “disappear”  
I sometimes wish that I would not feel anything. |
| Esteem   | The things I say and do are foolish.  
I am miserable to be around. |
| Excitement | I often cannot think of things to keep my mind occupied.  
There are times when I get bored with day-to-day life. |
| Excess   | I usually get into trouble because I don’t stop to think.  
I am careful in my decision making. |

*a Each item was answered on a scale of 1 to 5: 1 = Strongly disagree, 2 = Slightly disagree, 3 = Neither agree nor disagree 4 = Slightly agree, 5 = Strongly agree.

*b Note: This item is reverse-scored. Rockloff and Dyer (2006) provide a complete list of items.*

### Using the Four E's to Predict Increases in Gambling Problems (Abuse Sample)

Table 2 focuses on the "abuse" group (n = 82). It shows the results of a regression analysis using the 1-year change in gambling symptoms (the difference in CPGI scores from year 0 to year 1) as the dependent variable and each of the four 10 item sub-scales of the Four E's instrument as the independent variables. Results showed that the Excess trait was a significant predictor of increases in gambling problems over the 1-year period. Similarly, the Escape and Excitement traits were positively related to increases in gambling problems, although the beta-weights were non-significant. The Esteem trait was negatively related to increases in gambling symptoms, although the results were likewise non-significant.
Table 2

*Regression Analysis Summary for 4E’s variables Predicting Change in Gambling Symptoms (CPGI) over 1-Year*

*(Abuse Sample)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escape</td>
<td>.10</td>
<td>.54</td>
<td>.03</td>
</tr>
<tr>
<td>Esteem (low)</td>
<td>-.65</td>
<td>.69</td>
<td>-.13</td>
</tr>
<tr>
<td>Excess</td>
<td>.84</td>
<td>.51</td>
<td>.23  *</td>
</tr>
<tr>
<td>Excitement</td>
<td>.24</td>
<td>.52</td>
<td>.07</td>
</tr>
</tbody>
</table>

Note: *n = 82

* *p < .05 (one-tailed).

Using the Four E’s to Predict Increases in Gambling Problems (Random Sample)

Table 3 shows results for the "random" group of re-interviews (n = 320). The results were very similar to those obtained for the Abuse group. The Excess trait significantly predicted increases in gambling problems over the 1-year period. The Escape and Excitement traits were positively related to increases in gambling symptoms, but the results were not reliable. The Esteem trait was negatively associated with increases in gambling problems, but again the relationship was not significant.
Table 3

Regression Analysis Summary for 4E’s variables Predicting Change in Gambling Symptoms (CPGI) over 1-Year

(Random Sample)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SEB</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Escape</td>
<td>.03</td>
<td>.05</td>
<td>.04</td>
</tr>
<tr>
<td>Esteem (low)</td>
<td>-.08</td>
<td>.06</td>
<td>-.10</td>
</tr>
<tr>
<td>Excess</td>
<td>.07</td>
<td>.04</td>
<td>.11 *</td>
</tr>
<tr>
<td>Excitement</td>
<td>.02</td>
<td>.04</td>
<td>.04</td>
</tr>
</tbody>
</table>

Note: n = 320

*p < .05 (one-tailed).

Changes in CPGI Gambling Problem Classification over 1-Year Period (Abuse Sample)

Reporting again on the abuse sample (n = 82), Table 4 shows a cross-tabulation of gambling problem categorizations (CPGI) across both the original survey and the 1-year follow-up. Table 4 shows that despite the high test-retest reliability of the CPGI (r(389) = .75), there are changes in CPGI categorization for many individuals over the 1 year period. In fact, 46.7% (35) of these participants changed in their problem-gambling related classification. In total, 38% (29) had an increase in gambling problem categorization, while only 5.3% (4) decreased in symptom classification.
Table 4

Cross-Tabulation of Original CPGI and Scores 1-Year Later for the Abuse Sample

<table>
<thead>
<tr>
<th>Original CPGI:</th>
<th>CPGI category (1 Year Later)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No problem</td>
<td>Low risk</td>
</tr>
<tr>
<td>No problem</td>
<td>20</td>
<td>3</td>
</tr>
<tr>
<td>Low risk</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>Moderate risk</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Problem</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>43</td>
<td>14</td>
</tr>
</tbody>
</table>

* Missing values resulted in the exclusion of 7 participants.

Discussion

The Four E's scale demonstrated high internal consistency in both the original and follow-up survey, and had good test-retest reliability over the 1-year timeframe. As such, the current results lend support to the scale as a psychometrically sound measurement instrument. A scale must be reliable to be valid, but reliability is no guarantee that the constructs being measured have relevance for understanding problem gambling behaviour. Instead, these theoretical constructs should be meaningfully related to both the occurrence and development of disordered gambling. While past work (Rockloff & Dyer, 2006) has shown that the Four E's are predictive of concurrent gambling problems, this study showed that the Excess trait additionally was a reliable predictor of increases in problem gambling symptoms over the 1-year period for both the "abuse" and "random" group of interviewees. Further, this result suggests that the Four E's are not simply the psychological consequence of problem gambling behaviour, but supportable as the antecedent conditions leading to the development of disordered gambling.

The other 3 constructs (Escape, Esteem and Excitement) did not reliably predict increases in gambling symptoms for either group of respondents (abuse or random). However, the samples used were relatively small (abuse group, n = 82; random group, n =320), and measurement error in Likert instruments for these constructs is likely high. As such, it would be a mistake to assume that these other factors are not important for the development of gambling problems. More likely, the current results simply reflect the...
relative importance of the Excess factor in the development of problem gambling, and/or possibly the superior manner in which it is measured.

While gambling symptoms as measured by the CPGI (Ferris & Wynne, 2001) are reasonably stable by the standards of personality tests (test-retest, \( r(389) = .75 \)), the current surveys showed movement in problem gambling classification for almost half of the abuse-group respondents over a 1-year timeframe (46.7% or 35). In addition, most of these respondents increased in the severity of their symptoms rather than decreased. Since there is considerable variability in gambling problems over time, the Four E's may serve as a tool to identify people most at risk for more severe gambling-related troubles.

**Conclusion**

The Four E's scale is a highly reliable and stable measurement instrument. The constructs of the Four E's comprise a prototype psychological theory explaining the development of problem gambling behaviour. People develop gambling problems because Escape, Esteem, Excess and Excitement are motivating and/or facilitating factors within the individual. In the presence of an accommodating gambling environment, these traits lead to greater gambling involvement and the prospect of gambling-related harm.

The present results show that the Excess trait is predictive of increases in gambling problems over time. As such, the Excess trait may be an important target for treatment and harm minimization efforts. Encouraging gamblers to think clearly about the consequences of their choices, particularly in how they handle their money, could be an effective means of reducing the development of more severe gambling-related problems.

**References**


SHORTCUTS TO EFFECTIVE COUNSELLING: THE USE OF TIMELINES

Pallas Sarney, Lauren Hancock & Glenys Addy

Counsellors: Gambling Help WA
Centrecare Inc Perth.

ABSTRACT

The following article will discuss the experience of the Gambling Help WA counselling service in using timelines as an effective counselling tool to work with clients who have gambling problems. The development of the tool and its applicability to a range of theoretical models and perspectives on problem gambling will be presented, followed by instructions on how to construct timelines with clients during counselling sessions. Included is Gambling Help WA’s experience of how this tool can be viable and useful across a range of client presentations and types of gambling problems.

Introduction

Clients often present to the Gambling Help WA service with a sense of despair and confusion at not being able to understand why they have engaged compulsively in gambling behaviour that they view as both destructive and irrational. While much of the work focuses on helping clients develop practical strategies to overcome their gambling habit, or to work at practical solutions to solve problems that precipitate or eventuate from the gambling behaviour, this problem solving approach does not meet all the needs or presentations of all clients. Client and counsellor alike are often working towards deeper change through understanding what factors beyond conditioning and habit may be driving the gambling behaviour. For many clients, understanding and addressing these issues has been helpful in making and maintaining the changes they are seeking with gambling.

In working with clients, the counsellor may use a range of models and approaches to help them understand and gain control of their gambling behaviour:

From a behavioural perspective, the counsellor may explore the antecedents to the gambling, what elements of the gambling are positively or negatively reinforcing to the client, or consider the establishing operations that may motivate the gambling behaviour (i.e. factors which influence the reinforcing quality of a stimulus, such as hunger, tiredness or loneliness).

From an addictions perspective, the counsellor may explore whether chronic over or under arousal is an issue for the client, and whether there are other psychological problems or schemas that make escape or dissociation into gambling a rewarding and desirable experience.
From a **cognitive** perspective, the counsellor may explore whether distorted or irrational cognitive schemas around issues such as randomness, skill and luck, have developed to maintain the gambling behaviour.

From a **social learning** perspective, the counsellor may explore how the gambling was learnt as a functional behaviour in a client’s life, and may have been purposeful as a strategy to achieve certain financial, emotional or psychological outcomes.

From a **psychodynamic** perspective, the counsellor may explore whether the gambling has been a reactive response or unconscious solution to emotional or psychological problems associated with issues such as grief and loss, abuse, trauma, attachment issues or low self esteem.

From a **narrative** perspective, the counsellor may explore how gambling fits into the wider socio-political context of the client’s life, and how within it we may find stories of resistance and empowerment as well as suffering or struggle.

From a **physiological** perspective, the counsellor may explore the experience and impact of gambling on the client’s physiology, and whether neurological or medical conditions may be connected to the gambling behaviour.

Gambling Help WA counsellors operate from a diverse range of models and approaches such as these. The approach adopted in client work is determined by the needs of the client, their goals for counselling, the type of gambling problem presented and, ultimately, our intention to be useful to the client in helping them understand and change their gambling behaviour.

**Development Of Timelines**

A first step in developing this understanding is often the gathering of information about the current and the past gambling history of a client, and discussing what issues or situations they think may have been related to their past or current pattern of gambling. Prior to using timelines, this history was gathered verbally and recorded in written notes; a process that was quite counsellor-focussed. Recording information in this way also made it difficult for both counsellor and client to get a sense of what factors or issues might be related to the pattern of gambling over a client’s life.

Timelines developed out of the need for a more useful way for both client and counsellor to explore and relate to the stories and information in a client’s history. Timelines appealed to Gambling Help WA counsellors because they are a visual, interactive tool that enables clients to make their own discoveries about the causes, motivations, functions or risk factors associated with their personal gambling story. They have allowed Gambling Help WA counsellors to work more collaboratively with clients to develop “maps” of their own gambling history, and to match this against other events, experiences or periods in their overall life history.

Timelines have become a way to visually represent gambling history as well as general life history and other co-occurring conditions such as mental health, or substance use issues. This is constructed and recorded in a succinct form of inter-related information that is easy for both client and counsellor to refer to, add to, or make changes to in
subsequent sessions. The sense of ownership and self-discovery clients often experience as their timelines are developed and explored through many sessions, often leads to substantial, self-initiated changes in behaviour.

**Constructing Timelines**

Counsellors usually begin by drawing the timeline on the whiteboard as a simple graph, with the client’s age progressing along the horizontal axis, and the level of gambling progressing up the vertical axis.

The upper limit of the vertical axis is named as “your gambling at its worst” (GAW) and is thus relative to each particular client. This upper level of problematic gambling is then drawn as a broken line across the top of the horizontal axis as a reference point from which to map the relative increasing or decreasing levels of gambling over their lifetime.
The client’s age is noted at the times when the gambling fluctuates, as well as any other specific features of their gambling history (e.g. year the casino opened; when I had a big win; the period where I stole to gamble; stopped gambling socially and began going on my own, etc).

When the client’s gambling history has been mapped, other features of their life story are added to the timeline: early family history; significant relationships; marriages, separations or divorces; birth of children; deaths; immigration or relocation; job changes or unemployment; loss and grief experiences; trauma; particular problems and stressful periods.
After this information is added, the counsellor may explore the emotional experiences associated with these life events, and it is usually somewhere in this process of seeing which events or emotional experiences coincide with changes in gambling behaviour that clients begin to have a deeper understanding of what may have been influencing or motivating their gambling. They often begin to have more understanding of some of the functional, but often unconscious, reasons why they began or continue to gamble.

The following case study is presented in order to demonstrate the application of timelines in the Gambling Help WA counselling service. The case presented shows how timelines may be used to map co-occurring conditions such as problematic gambling and drug use against life events and experiences. Identifying details of this case have been changed in order to protect the privacy of the client.

**Case Study: Co-Occurring Problem Gambling And Amphetamine Use**

Jack accessed Gambling Help WA as a 29 year old male client who had gambled on horses at the TAB and at PubTAB for the past 14 years. He began working and earning an income at age 15 and his gambling accelerated quickly from this time. When he accessed counselling he was still gambling, although he had decreased the level of gambling significantly. He did not have any awareness about what may be motivating his gambling or how it may be serving any function in his life. At intake he was unemployed, living at his family’s house and talked about feeling quite depressed. He was experiencing a number of difficulties in his relationships with family members, which was a significant concern for him during counselling sessions.

The counsellor began by constructing a timeline and graphing the history of Jack’s gambling behaviour (see Timeline 1a. below). Jack reported that his gambling accelerated steeply from the time he began gambling at age 15, and was never at
manageable or recreational levels for any length of time. He recalled that the gambling increased significantly when he was about 20, and then from 22 to 25 he began to gain more control and his gambling decreased. His gambling then increased steeply from age 25 until it reached its worst level at age 28. A few weeks before Jack began counselling at Gambling Help WA he significantly decreased his level of gambling, but was not confident about maintaining these changes without gaining more understanding of why he gambled in this way and what he could do to prevent gambling becoming as problematic in the future as it had been in the past.

Timeline 1a.

![Timeline 1a](image)

After drawing the basic gambling history, the counsellor added the life events that Jack recalled as being particularly significant (see Timeline 1b. below). Prior to Jack beginning to gamble at age 15, he recalled a fairly stable childhood with his family, but a disruptive time during his teenage years following his parents’ divorce when he was 12. He lived with his mother, with whom he had a close relationship. His mother remarried when he was 13 and Jack had a conflictual relationship with his stepfather which eventuated in a physical fight between them when he was 14. After this incident his mother and stepfather demanded that he leave the house and live with his father, with whom he was less close. From the age of 14, until he was 16, Jack lived with his father who he described as providing a place to live but little else. His father was absent much of the time, and Jack effectively looked after himself during these years, receiving little care or direction from either parent. It was during this period that Jack began to gamble, and this increased at age 15 when he began to work and earn money.

At age 17 Jack began a relationship which lasted approximately four years. His gambling continued throughout this relationship but did not increase during this time. Jack expressed a lot of regret about the ending of this relationship, which he said was one of the most significant and difficult things he had experienced, and was still experiencing
some grief over the loss of this person in his life. He had not become involved in any relationships longer than a ‘one night stand’ since this break-up seven years earlier. His gambling increased following the break-up, until he began to reduce it two years later at age 23. This reduction continued until the death of two of Jack’s close friends when he was 26, after which his gambling increased to its worst level prior to seeking help.

**Timeline 1b.**

![Timeline 1b](image)

After looking at how these life events may have coincided with Jack’s gambling history, the counsellor began to see a pattern of increased gambling following experiences of loss and grief. Both the loss of his girlfriend and the loss of his close friends were followed by increases in his gambling, and were events he was still having difficulty coming to terms with when he accessed counselling. After observing how these events coincided with changes in his gambling behaviour, Jack began to talk about how gambling had helped him get through these painful times by being “somewhere he could go to forget about things, take his mind of everything, and somewhere to be around people”. While he was able to be clear about the impact these events had on him, he initially felt that the earlier incidents involving his family (being “thrown out” of his mother’s home; living with his father who was quite uninvolved and unavailable) had not been “a big deal”. Mapping these on the timeline, and discussing the emotional experience of these events, Jack realised that these events had been more painful and difficult than he had previously thought, and that the difficulty he experienced in relation to the later losses might also be connected to these earlier experiences of loss and rejection.
During counselling Jack also began to discuss his equally long-term problem with amphetamine use. He had been decreasing his amphetamine use for the past two years, and had ceased using amphetamines completely a few months prior to seeking counselling. He stated that his amphetamine use had been problematic for about as long as the gambling, but that he was currently finding his gambling more difficult to control. The history of his amphetamine use was added to the timeline to see how it related to gambling behaviour and to other life events (see Timeline 1c. below).

Timeline 1c.

Jack was surprised to see how his amphetamine use and gambling behaviour had interacted over the years; when one was increasing, the other was decreasing, so that in effect he used them alternatively to help increase his level of nervous system arousal. Jack was able to relate this to the chronic, low-grade depression he felt he had experienced since he was a teenager, and discussed how the gambling and amphetamine use had been related to socialising, motivation and energy levels, and improving his mood temporarily.

Jack addressed many issues over approximately 12 months of counselling at Gambling Help WA. He continued to abstain from amphetamine use, and managed to reduce his gambling to much lower levels, but was still struggling to stop completely during this time. He addressed loss and grief issues in relation to the death of his friends and the end of his previous relationship, and these issues were largely resolved at the end of counselling. He also addressed many family relationship issues, and developed more communicative, supportive relationships with family members as well as improving...
boundaries with family members in some areas. He became employed and moved out of his family’s home and into his own rental accommodation, and developed goals towards saving for a house deposit. Perhaps most significantly, he began (and at our last counselling session, was sustaining and enjoying) an intimate relationship with a young woman for the first time in seven years, and was no longer struggling with the depressive symptoms that he had experienced for most of his teenage and adult life.

Discussion

A common theme which runs through many of the theoretical models of problem gambling, as well as through current research, is the idea of gambling as a way to manage emotion or arousal levels. While not all problem gambling is motivated by this need, Gambling Help WA counsellors have found that the majority of clients use gambling as an emotional or psychological management strategy to some degree.

Blaszczynski & Nower (2002) recently developed a pathways model of problem and pathological gambling which identified three subgroups of problem gamblers:

1) **Behaviourally conditioned problem gamblers**: These clients may gamble excessively due to conditioning, distorted cognitions about winning and chance, bad judgement or poor decision making. Underlying psychological problems or impaired control is not driving gambling behaviour.

2) **Emotionally vulnerable problem gamblers**: As well as being subject to the same conditioning and cognitive distortions as the first group, these clients may have premorbid anxiety or depression, poor coping or problem solving skills, developmental or attachment issues, negative family backgrounds or difficult life events. Cumulatively these factors may produce an “emotionally vulnerable gambler” whose “participation in gambling is motivated by a desire to modulate affective states and/or meet specific psychological needs” (Blaszczynski & Nower, 2002).

3) **Antisocial impulsivist problem gamblers**: This final subgroup is described as being more disturbed and gambling in more severe, impulsive and antisocial ways. They may show signs of neurological or neurochemical imbalance, and have co-occurring behavioural problems such as substance use, suicidality, irritability and criminal behaviour.

Timelines can be helpful in identifying which issues are predominantly driving the gambling behaviour, and thus which category is most relevant to a client. The benefit in this sense is not in labelling a client, but in developing an appropriate therapeutic approach and helping a client develop strategies that will be most helpful given the particular nature of their gambling problem.

As the case studies have demonstrated, timelines can be particularly helpful in working with emotionally vulnerable gamblers by helping identify significant events or experiences associated with gambling, and then helping these clients explore the emotions, meanings or schemas attached to these experiences that may be motivating the gambling as a strategy to manage stress, distress or arousal.
However, if a client’s gambling problem fits more with the behaviourally conditioned model or the impulsive/antisocial model, this can also be identified within the timeline. In the first case, there may be an absence of other psychological or emotional problems, and no significant life events that precipitated the gambling as an emotion management strategy. The gambling will be likely to show up as being linked to opportunity, cognitive distortions, reinforcement and conditioning, subsequent habitual behaviour and secondary motivations such as social contact and poor problem solving skills.

In the second case there may be direct neurological or medical conditions linked to the development and maintenance of the gambling problem, or evidence of multiple behaviour problems and a general pattern of impulsivity in a range of situations.

Identifying more clearly what is associated with the development and maintenance of each individual’s gambling behaviour allows for therapeutic approaches to be tailored more appropriately to the specific needs of the client, rather than applying a blanket model and hoping it fits the client. Gambling Help WA counsellors have found that many clients make significant and long-lasting changes to their gambling behaviour when they understand, through their own observation and awareness, what factors are linked to or motivate the gambling.

Timelines also have the potential to be used creatively and narratively to map past problematic gambling cycles, and then explore what has changed since that time in respect to a client’s skills, needs and resources. From this perspective a client may develop a more broad sense of themselves as able to cope without gambling or as able to deal with personal or life situations from a place of more choice and resourcefulness.

Reference

HOST RESPONSIBILITY COORDINATOR PROGRAMME AT SKYCITY ADELAIDE

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ABSTRACT

In December 2004 SKYCITY Entertainment Group introduced ‘Host Responsibility Coordinators’ (HeRCs) at its Adelaide gaming and entertainment business, as a trial measure. The team of five is specially trained to look out for early warning signs and help identify gambling and alcohol-related problems in customer behaviour.

SKYCITY has found that the initiative has facilitated earlier interventions with potential problem gamblers. It has also successfully raised awareness of SKYCITY’s host responsibility commitments with general staff and external stakeholders.

This paper discusses the rationale behind the trial, outlines the role performed by the HeRCs; their training, skills and competencies; and reports on early indications of the trial’s success and possible future directions.

Introduction

Since opening its first gaming and entertainment property in Auckland, New Zealand in 1996, SKYCITY Entertainment Group (SKYCITY) has established a reputation as one of the gaming industry’s leaders in host responsibility and problem gambling management. The company, which now has two properties in Australia as well as operations throughout New Zealand, has a Group-wide Host Responsibility Policy, features of which include a commitment to early intervention with problem gamblers and drinkers, and to comprehensive training for all staff. Underpinning this policy are property-specific host responsibility programmes, tailored to each property’s scale, physical layout, and customer base.

This paper focuses on the appointment of five Host Responsibility Coordinators (HeRCs) as part of a wider host responsibility programme at SKYCITY Adelaide, a 70-table, 950-machine gaming and entertainment complex in South Australia. The HeRCs, who were appointed in December 2004, assist in addressing problem gambling and alcohol management issues with at-risk customers. Specially trained to help identify gambling and alcohol-related problems in customer behaviour, they are on site at the complex at all times and work in collaboration with counseling agencies and treatment providers.
Overall Approach

SKYCITY sees both a social and a business rationale for taking an active role in host responsibility and problem gambling support, understanding that addressing concerns about the harmful effects of gambling is vital to gaining acceptance and credibility in the communities it operates in. SKYCITY’s position is that operating a gaming business is a privilege, not a right, and with that privilege comes certain responsibilities. In the long term the investment SKYCITY makes in host responsibility contributes to its sustainability as a business and as a sector. A comprehensive approach to host responsibility also supports SKYCITY’s vision of creating fun and entertainment for customers – safe, positive experiences will ensure customers return and recommend SKYCITY to others.

SKYCITY’s approach to host responsibility has also been influenced by the concept of the ‘Gambling Continuum’, which was introduced to the company by treatment service providers Abacus in New Zealand.

The ‘Gambling Continuum’ model describes how customers with gambling problems are seen to move backwards and forwards along a continuum from social gambling to early problem gambling, and, at the opposite extreme, severe problem gambling. For some people, the risk of attempting to continue to gamble at a lower rate, and move back down the continuum model, is not a safe option. However, for others, particularly those experiencing very early signs of problem gambling, early intervention can mean that they are able to return to socially acceptable levels of gambling. Because of this, the ‘Gambling Continuum’ model provides a business rationale for early intervention with customers experiencing the early signs of problem gambling.

SKYCITY therefore places a high emphasis on giving staff members the tools and confidence they need to identify customers who may have a gambling problem, and to intervene when appropriate. A three-tiered training programme includes all staff members, with more extensive skills and knowledge provided for people in key roles. The objectives are for all staff to recognise the value of their role in early intervention, to acquire the skills to intervene, and to integrate these skills into their daily work.
Three-tiered training structure

Within the framework provided by SKYCITY Entertainment Group’s overall Host Responsibility Policy, each SKYCITY business (the company has gaming and entertainment properties in Auckland, Hamilton, Queenstown and Darwin as well as Adelaide) is required to develop a host responsibility programme to suit its specific needs and requirements.

At SKYCITY Adelaide, this programme takes the form of a Host Responsibility Charter: a combination of blueprint, instruction manual and Host Responsibility ‘bible’ for staff. It acknowledges the legislative and regulatory framework in which the property operates, and establishes objectives and specific actions in a wide range of areas (e.g. responsible marketing and advertising policy, referrals to treatment providers, compulsory staff training).

Case Study:

SKYCITY Adelaide’s Host Responsibility Coordinators (HeRCs)

Rationale

The rationale behind the appointment of the five HeRCs was to provide resource that was completely focused on and dedicated to host responsibility, in a way that would support targeted, early intervention with customers showing early signs of problems with drinking and/or gambling.
Because the ‘Gambling Continuum’ model allows for variance and interpretation, it requires human knowledge and skill to apply it in a very real, and potentially volatile or sensitive situation. While all staff operating at SKYCITY receive training in and remain accountable for host responsibility, the HeRCs are focused on host responsibility at all times. They have specialist skills, knowledge, and personal qualities that have been particularly selected or developed for the purpose.

Collaboration

The design of the HeRC programme was a collaborative effort, involving SKYCITY Adelaide and problem gambling treatment providers. These included the Churches Gambling Taskforce and Break Even Counselling Network. Over a twelve-month period, formal meetings were held to develop targeted and meaningful initiatives, based on the principle of early intervention. The collaborative approach allowed normally disparate groups to share knowledge and resources, as well as build lasting relationships. These relationships played an intangible and vital role in the ongoing success of the programme during its early stages.

Specific HeRC Responsibilities

Within the context of the SKYCITY Adelaide Host Responsibility Charter, HeRCs have a series of specific responsibilities, including:

- Monitoring of customers and their behaviours to identify customers showing signs of actual or potential gambling problems
- Approaching customers showing signs of gambling problems (that they or other staff members may have identified), offering assistance and information, and pointing them to various counselling services that are available to them;
- Acting as the facilitators between problem gambling treatment providers and the customer;
- Acting as the liaison between SKYCITY and problem gambling treatment providers;
- Facilitating the process of self-barring requests from individuals or their families; and
- Monitoring customers for signs of intoxication.
Organisational Structure

HeRC Skill Set

Key criteria for the HeRC roles include knowledge and experience associated with gaming operations and customer service initiatives. The personnel were specially trained to look out for early warning signs and help identify gambling and alcohol related problems in customer behaviour.

All five HeRCs currently working at SKYCITY Adelaide have come from previous roles within the organisation, holding positions from security, food and beverage services, and the gaming machine area.

HeRCs require a high degree of self-confidence and the ability to communicate successfully with a wide range of people – both customers and staff.
Internal Relationships

The interaction between general staff and the HeRCs creates a kaleidoscopic view of the complex and multiplies the number of people on the lookout for early warning signs.

The HeRCs maintain active cross-departmental relationships, particularly with departmental shift supervisors and security shift managers. This helps the HeRCs identify potential trouble spots and prioritise issues that require immediate attention. This process also requires that other staff, particularly those in operational areas of the business, understand the HeRCs’ roles and responsibilities, and when to contact them.

One of SKYCITY’s initial concerns about appointing the HeRCs was that other staff would lose focus on host responsibility, assuming the responsibility was no longer theirs. However, the programme has actually had the opposite effect, significantly raising the profile of host responsibility with other staff. Communications about the appointments were careful to emphasise the message that all staff play a crucial role in the host responsibility programme, and the HeRCs themselves have maintained strong internal relationships and connections.

Eyes and Ears of the Casino

On a practical level, a HeRC’s day-to-day job is diverse. At least one HeRC is required to be on duty during all opening hours. The HeRCs can roam at will throughout the premises, staying attuned to any signs of unusual behaviour or difficulty (this may be gambling-related, drug or alcohol-related, or for any other reason).

The range of issues a HeRC deals with in their working day is varied, and may range from giving advice on how and where to find help for problem gambling, assisting customers in implementing the self-exclusion procedures in place at SKYCITY, or dealing with concerned family members or friends. The HeRCs have been trained to deal with customers proactively, rather than simply responding to incidents as they occur.

Success Factor 1 - Collaboration and relationship-building

The collaborative approach to the project was identified as a major success factor in both the planning and implementation phases. On an ongoing basis, the appointment of the HeRCs has improved the quality of transactional daily communications between SKYCITY Adelaide and the treatment providers. It has also been of benefit to the ongoing, wider relationships between the parties.

Success Factor 2 - Communications

Two-way communication and idea-sharing has been recognised as a major success factor in the programme.

Communication between managers in Adelaide and the HeRC team is constant and ongoing. Across the SKYCITY Group, the Host Responsibility managers talked
regularly, sharing insights and advice. The unique and exploratory nature of the programme meant that there was a large amount of material to share and discuss.

Communication between Adelaide and Auckland occurred several times a month, on a case-by-case basis. Issues identified through this process included a need to more vigorously enforce the Responsible Service of Alcohol policy, which resulted in the programme being adjusted accordingly. This assessment-evaluation-adjustment cycle was typical of the learning process during the first ten months of the HeRC programme’s operation, and highlights the central importance of communication throughout.

Two-way communication between floor staff and the HeRCs increased significantly during the first ten months, and the strength of the relationships between the personnel has been key to the success of the initiative.

**Success Factor 3 – Integration into wider programme**

Another success factor was the integration of the HeRC programme with SKYCITY’s overall host responsibility programme. The HeRC programme would have made little sense without this much broader commitment to and practice of host responsibility. The HeRC appointments fitted in neatly with the suite of other initiatives, and in practice function to bind them together.

**Success Factor 4 – Recruiting the right people**

At the heart of the HeRC programme is a continuous series of human interactions, and the human aspect of the programme is vital to its success. It requires the right people for the role, as they need to forge superior relationships between a number of discordant groups. SKYCITY made it a priority to appoint people who had a high degree of familiarity with the business as well as possessing the right mix of personal qualities and aptitudes.

**Success Factor 5 - Flexibility**

A degree of flexibility has been something that has proved crucial over the initial implementation period, and will continue to do so as the programme evolves. The HeRC programme had to be flexible enough to be altered in the light of experience and the occasional unforeseen difficulty. This has required a well-developed understanding internally of the programme and the challenges of early intervention in practice, as well as good communication between the HeRCs and staff members in operational areas.

**Endorsements**

The HeRC programme has received a number of endorsements from independent treatment providers, both for the philosophy behind the programme and for the implementation of it. Of the programme, Mark Henley, chairperson of the South Australia Gambling Taskforce and manager with UnitingCare (Wesley) stated:
The employment of dedicated staff is a sensible measure to reduce problem gambling. The focus on preventing harmful behaviours before problems arise is an initiative to be applauded. The agreement with SKYCITY regarding harm minimisation reflects an important step in addressing problem gambling. It demonstrates the value of the industry, led by SKYCITY, and Break Even Services working together to provide targeted and meaningful initiatives.

The Independent Gambling Authority also acknowledged SKYCITY’s commitment to harm minimisation in its 2003/2004 Annual Report. Presiding Member Mr. Stephen Howells commented that:

I should also mention the proactive stance of SKYCITY in indicating a willingness to put on a payroll [five] dedicated and responsible gambling officers, whose role would include matters such as identifying and offering assistance to problem gambling in the casino.

**Opportunities for Further Development**

SKYCITY’s overall host responsibility policy continues to evolve in response to new research, changing regulatory measures and ongoing evaluation and assessment.

The HeRC programme is currently undergoing a definitive assessment that will include consideration of whether to introduce HeRCs to other SKYCITY properties. However, given the diversity of properties within the group, in terms of scale, different entertainment offerings and customer bases, it may be that ‘one method does not fit all’. Further, any implementation would be within the context of a broader programme developed specifically for that property.

Specific operational opportunities within the Adelaide HeRC programme include ensuring the HeRCs have access to the latest international research and expertise in host responsibility, and receive up-to-the-minute information relating to emerging (international or local) harm minimisation issues and trends.

**Conclusion**

Key success factors in the introduction of HeRCs to SKYCITY Adelaide include collaboration; communication; integration into a wider programme; recruiting staff with strong interpersonal and relationship-building skills; and a flexible approach. SKYCITY’s initial concerns that other staff would lose focus on Host Responsibility proved to be unfounded; in effect the programme significantly raised the profile of host responsibility with other staff.

Given the complexity and range of factors involved, and the breadth of its overall host responsibility programme, SKYCITY is unable to determine whether the appointment of HeRCs as a discrete programme has had a measurable impact on the prevalence of problem gambling at SKYCITY Adelaide. However, the appointment of the HeRCs has created a range of benefits, including the facilitation of earlier interventions with
potential problem gamblers, a higher profile for host responsibility internally and enhanced relationships and communications with external stakeholders.
BUILDING QUALITY THROUGH CLIENTS’ EYES

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ABSTRACT

A review of the consumer satisfaction research purchased by the Problem Gambling Foundation over several years cleared indicated that inadequate methodology accounted for poor results. After discussing the Foundation’s previous consumer satisfaction research and the nature and context of consumer satisfaction evaluation, this paper outlines a significantly modified design and methodology adopted in 2004. The results of a consumer satisfaction evaluation undertaken between November 2004 and February 2005 are reported. Surveys were returned from 33.7% (n=181) of clients seen during this period and report very high levels of satisfaction with accessibility to services, the helpfulness and competence of staff, and both the relevance and effectiveness of counselling services provided. Lower levels of satisfaction were reported with regard the quality and utility of written resources provided. The means for integrating the results of this evaluation into quality management are outlined.

Overview of the Problem Gambling Foundation NZ

The Problem Gambling Foundation (PGF) was established in 2001 to replace the former Compulsive Gambling Society previously formed in 1988 to address the harms of problem gambling in New Zealand. PGF is a New Zealand wide service, currently employing more than 60 staff. With its national office in Auckland, 3 regional offices, a specialist Asian service and a partnership with the Centre for Gambling Studies and Auckland University’s Department of Medical and Health Sciences, PGF shapes its work in four ways:-

**Changing Environments**
Working with Central Government (in particular the NZ Ministry of Health and Department of Internal Affairs) and Local Government (the many City and County Councils) to influence the development and maintenance of effective public health policy and gambling regulation.

**Informing Change**
PGF participates in and funds a range of research, workforce development and training initiatives. We are committed to disseminating accurate and opinion shaping information via the print and public media, and web-based resources.

**Changing Lives**
Still our largest service PGF provides face to face and group counselling for individuals and couples effected by problem gambling, from almost 50 centres
throughout NZ. We have moved from a diseased oriented model, to support strengths based counselling approaches – understanding the cause of problem gambling to be the gambling environment rather than individual pathology or functioning. We currently see approximately 2,500 new clients each year.

**Changing Communities**
PGF was the first organisation in the world to establish public health initiatives to address the harms of problem gambling. Currently we employ staff nationally involved in the delivery of community and youth education programmes, and community action campaigns.

We have, this past year, changed our mission statement – PGF is focussed on “eliminating the harms of problem gambling”.

**Review PGF Consumer Satisfaction 1999-2002**

From 1999 through 2002 PGF contracted an independent research service to evaluate and report client satisfaction. They did this via a postal survey mailed to a selection of clients who had accessed counselling services in the period 3 to 14 months prior to the research. The term “selection of clients” is used because the method of selecting these former clients appears to have been left to the receptionists in the 3 largest offices to choose clients to mail the survey to and inform the researchers how many surveys had been posted. The results were no less unsatisfactory.

Although the satisfaction levels reported in any year – refer Table 1 - ranged from 80% of clients satisfied with PGF’s services in 2000 to 96% of clients satisfied in 2001, the sampling method and number of surveys returned provides no confidence in the validity or reliability of these results. In fact the 2000 result is based on the 34 returned questionnaires (2.9% of the possible 1170 clients seen during the “sample” period) and the 2001 result reports 54 returned questionnaires (4.3% of the possible 1256 clients seen during the “sample” period), refer Table 2.

It would appear the reports were used to persuade stakeholders of client satisfaction, but there is no evidence the reports were used to inform improvements in service delivery. It is doubtful the results could have usefully informed the latter intent.

**Table 1:** Summary of client satisfaction reported in 1999 – 2002 surveys

<table>
<thead>
<tr>
<th>Year</th>
<th>Nº surveys returned</th>
<th>Clients satisfied with PGF quality</th>
<th>PGF contributed to improved well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>46 (27%)</td>
<td>42 (91%)</td>
<td>30 (65%)</td>
</tr>
<tr>
<td>2000</td>
<td>34 (14%)</td>
<td>27 (80%)</td>
<td>30 (88%)</td>
</tr>
<tr>
<td>2001</td>
<td>54 (17%)</td>
<td>52 (96%)</td>
<td>50 (93%)</td>
</tr>
<tr>
<td>2002</td>
<td>35 (20%)</td>
<td>30 (85%)</td>
<td>31 (89%)</td>
</tr>
</tbody>
</table>
Table 2: Presentation of client surveys as proportion of total clients 1999 - 2002

<table>
<thead>
<tr>
<th>Year</th>
<th>N° surveys posted</th>
<th>N° surveys returned</th>
<th>N° clients in period clients</th>
<th>Surveys returned as % of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>170</td>
<td>46 (27%)</td>
<td>1,122</td>
<td>4.1%</td>
</tr>
<tr>
<td>2000</td>
<td>239</td>
<td>34 (14%)</td>
<td>1,170</td>
<td>2.9%</td>
</tr>
<tr>
<td>2001</td>
<td>314</td>
<td>54 (17%)</td>
<td>1,256</td>
<td>4.3%</td>
</tr>
<tr>
<td>2002</td>
<td>176</td>
<td>35 (20%)</td>
<td>1,522</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Overview consumer satisfaction

Consumer, or client, satisfaction evaluations are a means to “consult” with service users about their experiences of the organisation and its services. They provide an opportunity for consumers to influence service review and quality. With reference to the various forms of programme evaluation they lie somewhere between process and outcome measures, and often embrace elements of both.

For example, if the focus is on the consumers’ satisfaction with the context in which services are provided, accessibility, or responsiveness then the measures are clearly aspects of what would usually be included in process evaluation. Similarly where there is interest in the extent to which consumers experience a service as helpful in addressing their problems, then a consumer satisfaction measure has moved into elements of outcome evaluation.

Typically satisfaction evaluations have gathered information from consumers about

- physical setting
- helpfulness of support staff
- information resources
- perceived competence of counselling staff
- “humaness” of the service
- waiting times
- accessibility
- responsiveness and relevance
- effectiveness
- cost of service
- reliability and dependability
A self-administered questionnaire is the most common measure used for consumer satisfaction evaluations. Alternatively face to face or telephone interviews have been used, or focus groups. These are all more time intensive and expensive than a written survey, although they generally provide richer qualitative data.

There has been a succession of validated self-administered questionnaires employed in mental health and counselling settings. The Client Satisfaction Questionnaire CSQ-8 (Greenfield and Attkisson, 1989), the Service Satisfaction Survey SSS-30 (Attkisson and Greenfield, 1994) and the Client Satisfaction Inventory (McMurtry and Hudson, 2000) being the best known and reported.

The CSQ-8 is attractive as it provides a short (8 questions scored on a 4 point Likert scale) and easily completed questionnaire. While it provides information about levels of satisfaction (e.g. How would you rate the quality of services you received?, To what extent has our programme met your needs?) it is too short and non-specific to provide information about specific elements of satisfaction, or dissatisfaction (e.g. waiting times, reception services, etc). As such its use does not inform attempts to improve specific aspects of services.

The SSS-30 is a significantly larger instrument and therefore both more detailed and comprehensive. However, it was designed for use in health settings and includes questions about users’ satisfaction with prescribed medications and perceived effects on the relief of symptoms. We decided this questionnaire was too long and contained inappropriate questions for our consumer population.

The CSI is a simple 25-item instrument, suitable for use in a wide range of counselling services. Its focus is on the competence of service delivery staff, the “humaneness”, relevance and general effectiveness of services. However, this instrument also ignores the assessment of physical setting, information resources, support staff, wait times, accessibility, or indeed the aspects of counselling (improved confidence, improved self-esteem, reduced anxiety) associated with satisfaction with effectiveness of services. These are important aspects of consumer satisfaction.

None of the survey’s commonly reported in the professional literature allowed for qualitative data (written text) from consumers.

As such we decided to design our own survey, addressing both generic and specific aspects of consumer satisfaction, and using both quantitative and qualitative responses.

**The 2004 Consumer Satisfaction Survey**

**Design**

It was decided to ask new clients to complete a self-administered written questionnaire. Amongst the survey method options a self-administered questionnaire reduces the risk of evaluator bias, and significantly reduces both time and dollar costs. All new clients during the survey period (1st November 2004 to the end of February 2005) were given the survey instrument on their second or third appointment and asked to complete it. They
were given the option of handing the survey back to PGF staff in a sealed envelope or to post it direct to me (at PGF’s cost).

We designed our own questionnaire with 22 items as follows:-

3 demographic questions  
gender, age, ethnicity
14 process oriented questions
2 (8) effectiveness questions
3 qualitative questions

What have you found most helpful about PGF?
Have you any criticisms of PGF?
How could PGF improve its service?

Amongst the process focussed questions we were interested to assess clients’ experiences of 8 commonly assessed factors associated with service quality:

Accessibility  
Helpfulness of support staff  
Physical setting  
Competence of counselling staff  
Information resources  
Relevance of service to client need  
Generalised satisfaction

Each question was answered by means of a Likert type scale, with opportunity for additional written comment.

Two questions examined client estimate of service effectiveness

Are our services helping you cope with the problem you 1st contacted PGF about?

Tick any or all of the ways that PGF has helped you:
Better understanding of gambling
Increased control over gambling
Improved relations with family or friends
Increased coping skills
Increased confidence
Less anxious
Less depressed

Questionnaires were assigned one of 6 regional identifiers and were translated into Chinese and Korean script prior to distribution to PGF staff nationally.

Results

Completed surveys were forwarded to my office and administrative staff entered the data into an Excel spreadsheet. The quantitative data from the non-English language surveys was provided in a form easily entered onto the spreadsheet by English speaking staff and the qualitative data has been forwarded to the manager of the Asian service for his attention. The data was then forwarded to an independent survey and statistics consultant
for analysis and report. My thanks to Dr Kevin Voges of the University of Canterbury for his advice and report. Data was analysed using SPSS software.

186 completed questionnaires were received. This represents 33.7% of the 552 new clients seen by PGF during the survey period.

The demographic information was unsurprising (refer Table 4). Approximately equal numbers of men and women participated in the survey and there was a wide age range represented. A slightly higher percentage of Maori participants completed the survey compared with the number of Maori who access services annually.

Table 3: The gender, age and ethnicity of survey participants

<table>
<thead>
<tr>
<th>Demographic category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>male</td>
<td>47.0%</td>
</tr>
<tr>
<td>female</td>
<td>53.0%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>less than 30</td>
<td>17.5%</td>
</tr>
<tr>
<td>30 – 39</td>
<td>31.7%</td>
</tr>
<tr>
<td>40 – 49</td>
<td>24.6%</td>
</tr>
<tr>
<td>50 – 59</td>
<td>19.1%</td>
</tr>
<tr>
<td>60 or older</td>
<td>7.1%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>European / Pakeha</td>
<td>65.4%</td>
</tr>
<tr>
<td>Maori</td>
<td>15.9%</td>
</tr>
<tr>
<td>Pacific Island</td>
<td>2.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>11.9%</td>
</tr>
<tr>
<td>Other</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Analysis of the process focussed questions shows a very high level of consumer satisfaction for most of the factors assessed.

1. Accessibility

*Is it easy to contact PGF to make an enquiry or change an appointment?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>Not always</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.2%</td>
<td>6.1%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

*Has the counselling been offered at a convenient time?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>Not always</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>93.9%</td>
<td>5.0%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

*Has the counselling been offered at a convenient place?*

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>
95.6%    4.4%

**Have you been kept waiting more than 10 minutes past your appt time?**

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>91.7%</td>
<td>7.7%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

2 **Helpfulness of support staff**

*Did the receptionist make you feel welcome and comfortable?*

<table>
<thead>
<tr>
<th></th>
<th>Always</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>93.4%</td>
<td>6.6%</td>
<td></td>
</tr>
</tbody>
</table>

3 **Physical setting**

*Were you satisfied with the appearance of the reception area / offices?*

<table>
<thead>
<tr>
<th></th>
<th>Pleasant</th>
<th>Adequate</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>79.6%</td>
<td>17.1%</td>
<td>3.3%</td>
</tr>
</tbody>
</table>

4 **Competence of counselling staff**

*Did the counsellor put you at ease?*

<table>
<thead>
<tr>
<th></th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>98.3%</td>
<td>1.7%</td>
<td></td>
</tr>
</tbody>
</table>

*How well does the counsellor understand your difficulties?*

<table>
<thead>
<tr>
<th></th>
<th>Very good</th>
<th>Adequate</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90.6%</td>
<td>9.4%</td>
<td></td>
</tr>
</tbody>
</table>

*Does the counsellor involve you in decision making about your difficulties?*

<table>
<thead>
<tr>
<th></th>
<th>Most of the time</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95.0</td>
<td>3.9%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

5 **Information resources**

*Please comment on the quality of PGF written material you have seen?*

<table>
<thead>
<tr>
<th></th>
<th>Good quality</th>
<th>Average quality</th>
<th>Poor quality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>83.4%</td>
<td>16.6%</td>
<td></td>
</tr>
</tbody>
</table>

*Has PGF written information been helpful to you?*

<table>
<thead>
<tr>
<th></th>
<th>Very helpful</th>
<th>Quite helpful</th>
<th>Not helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>54.1%</td>
<td>44.8%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

6 **Relevance of service to client need**

*Have you received the service and help you wanted from PGF?*

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>96.1%</td>
<td>3.9%</td>
<td></td>
</tr>
</tbody>
</table>

7 **Generalised satisfaction**

*If a friend had a gambling problem would you recommend PGF?*

<table>
<thead>
<tr>
<th></th>
<th>Definitely yes</th>
<th>Probably yes</th>
<th>Definitely no</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>90.1%</td>
<td>9.4%</td>
<td>0.5%</td>
</tr>
</tbody>
</table>
How do you feel overall about the service you received from PGF?

<table>
<thead>
<tr>
<th></th>
<th>Very positive</th>
<th>Positive</th>
<th>Okay</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>75.7%</td>
<td>19.9%</td>
<td>3.9%</td>
<td>0.5%</td>
<td></td>
</tr>
</tbody>
</table>

8 Effectiveness

Are our services helping you cope with the problem you 1st contacted PGF about?

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Sometimes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.1%</td>
<td>8.2%</td>
<td>1.7%</td>
<td></td>
</tr>
</tbody>
</table>

In a separate question we selected 7 areas of possible benefit from counselling with PGF and asked participants to indicate if PGF has helped with any or all of them.

- Better understanding of gambling: 82%
- Increased control over gambling: 67%
- Improved relations with family or friends: 69%
- Increased coping skills: 62%
- Increased confidence: 53%
- Less anxious: 55%
- Less depressed: 57%

Clearly a large number of participants indicated more than one area of benefit.

The results indicate that 82% of participants reported achieving a better understanding of gambling and 67% report increased control over gambling. Similarly, 55% of participants felt less anxious and 53% were more confident. It should be noted that these results were reported after a maximum of only two prior counselling sessions.

Care is needed interpreting the results of this question. It cannot be inferred, for example that 18% of respondents have a worse understanding of gambling or that 47% felt less confident (although this may be the case). Consideration also needs to be given to the fact that if a person did not feel, for example, “under-confident” prior to coming to PGF then they would be unlikely to report a benefit of increased confidence attributable to PGF’s help. Thus some of the identified “markers of improvement” (increased confidence, diminished anxiety) may simply be irrelevant for consumers and therefore not register as an item of benefit.

The regional identifiers allowed results to be compared across regions. Similarly responses were crosstabulated with the demographic data and satisfaction compared for gender, age and ethnicity.

There are some interesting results.

Was the counselling offered at convenient times?

There is an age factor in the level of satisfaction with times counselling is available – the age group “younger than 30 years” reported a significantly higher number of “not always” responses (Chi-sq = 15.4, df = 6, p< 0.05)
Did the counsellor put you at ease?
Again there is an age factor in the level of satisfaction - the age group “younger than 30 years” reported a significantly higher number of “sometimes” responses (Chi-sq = 14.3, df = 3, p < 0.05)

Does the counsellor involve you in decisions about your difficulties?
Significantly more men reported “sometimes” (Chi-sq = 6.6, df = 2, p > 0.05)

Improved relations with family of friends

Significantly more women than men reported improved relationships as a result of the first session or two of counselling (Chi-sq = 8.3, df = 1, p < 0.05)

The qualitative comments were also presented in full in the final report. These have been analysed for trends and suggestions for improvements. In general the narrative comments support the quantitative data – in particular there are a large number of positive comments identifying individual counsellors, comments about PGF’s written material and ideas for improving the appearance of reception areas. From written comments there appears to have been difficulties with telephone messaging and response rates – an item not assessed in the quantitative data.

Discussion and Outcomes

This consumer satisfaction survey evidences a surprisingly high level of consumer satisfaction across most categories. In particular levels of satisfaction with regards accessibility to services, helpfulness of support staff, and effectiveness are very high (more than 90% of consumers assigned the highest satisfaction measure to each factor) and greater than would be expected from reports of consumer satisfaction in mental health and counselling settings. The greatest level of satisfaction was recorded with reference to qualities of the counselling staff and the relevance of the service to consumer needs.

The two areas of satisfaction receiving the lowest measure of consumer satisfaction were the appearance of reception areas and information resources.

Given that the surveys were provided with geographic identifiers prior to distribution we have been able to identify regions within PGF where clients are more or less satisfied with services. Similarly we have assessed the indicators of effectiveness (counselling benefits) against geographic region and these results have been discussed with the relevant Regional Manager.

The results and report have been presented to PGF’s National Management Team and a summary sent to all staff nationally. An action plan has been submitted to the Chief Executive, and work will be undertaken over the next few months to review the content and presentation of our printed resources review the functioning of after-hours telephone answering and messaging assess reception areas in the regions where this was reported as an issue of diminished consumer satisfaction
We will undertake another consumer satisfaction survey using the same method, in March and April 2006. It is noted that data collection slowed significantly from the end of December 2004. This is probably attributable to the very noticeable and sudden drop in the numbers of new referrals from the middle of December (coinciding with the implementation of the NZ Government’s ban on smoking in all public buildings), together with the impacts of the Christmas and January holiday period. A shorter data gathering period will probably reduce “experimenter fatigue” – I think our counselling staff probably got tired of the exercise and gave it less priority in the latter months.

We will review the content of the survey document and look to include areas commented on in the qualitative data. Despite very high levels of satisfaction in most sections of the survey – not withstanding the reception appearance and written resources – consumers only answered the question “How do you feel overall about the service you received from PGF” with a very positive response in 76% of cases and positive in 20% of cases, compared with okay in 3.8%. This variance from the other indicators may be due to an increase in discriminative options – a 4 point Likert type scale for this item compared to only 3 for other questions, thus allowing a greater spread of opinion. However it may also be due to dissatisfaction with areas of service we failed to include within the survey questions. Consumers may indeed by very satisfied with the items we asked them to comment on, but dissatisfied with “unknown” items, thus registering a reduced level in a generalised question such as this one. We should for example, assess telephone and messaging in the next survey.

This consumer satisfaction survey has confirmed a number of critical factors. Consumer satisfaction is a vital component of the management of quality and it does not need to be complicated or expensive. This instrument has not been normed against other problem gambling populations, and in fact is extremely limited in its psychometric sophistication. None-the-less it has provided a statistically significant result with practical outcomes. Furthermore, any assessment of consumer satisfaction needs to include aspects of process and outcome evaluation. In our situation a process-focussed analysis would certainly have pointed to the need to improve the content and appearance of our written resources. However we would have had no reason to be confident about whether counsellors who put consumers at ease, understand their problems and involved them in decisions were contributing to any experience of benefit for consumers. If we had only assessed general levels of satisfaction and enquired about effectiveness of counselling we would have had no indication of specific factors we could improve that would add to consumers’ levels of satisfaction with our organisation.

In conclusion, it is important to recognise the place of such a survey in the overall operations of an organisation. In the field of quality management generally there are those who would argue the only measure of quality is the value consumers put on a product or service. Such a definition tends to obscure the factors that might contribute to a highly (consumer) valued service. Consumer feedback is vital, but it needs to sit alongside and form part of an organisation’s overall strategy and methods. This interim report identifies the utility of consumer surveys, and is one of the components of an integrated approach to building quality.
References


A STRUCTURED CLINICAL INTERVIEW FOR PATHOLOGICAL GAMBLING

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ABSTRACT

Pathological gambling is diagnosed widely by the ten criteria of the Diagnostic and Statistical Manual (Fourth Edition) of the American Psychiatric Association (DSM-IV). Unfortunately, each criterion is open to a range of interpretations that undermines the use of the criteria in research. Importantly, reliable diagnostic tests are necessary to determine whether or not treatment interventions have been successful. In this paper, a structured clinical interview (SCIP) is presented in which a series of questions are provided for each DSM-IV criterion. The answers to these questions are matched against explicit sub-criteria and rules provided for inferring the status of the individual with respect to the DSM-IV criteria. Reliability and validity estimates are provided based on the assessment of clients seeking help from a gambling treatment clinic. The SCIP offers high diagnostic reliability between clinicians and may provide a basis for better understanding the mismatch in diagnosis between the DSM-IV criteria and other diagnostic screens.

Introduction

Increasingly, pathological gambling is being diagnosed by the criteria set out in the Diagnostic and Statistical Manual, revision IV (DSM-IV) published by the American Psychiatric Association (1994, 2000). The DSM-IV criteria are frequently used in research concerning the assessment and treatment of individuals who seek help for gambling-related problems (Hodgins, 2004; Milton et al., 2002; Stinchfield & Winters, 2001; Sylvain, Ladouceur & Boisvert, 1997) and are beginning to be used for measuring the prevalence of pathological gambling in society (Becoña, 2004; Orford, Sproston & Erens, 2003). It is perhaps premature to refer to the DSM-IV criteria as the ‘gold standard’ in assessing pathological gambling. However, this approach to diagnosis appears to be used increasingly often and there is good reason to examine the criteria carefully and to ask the question whether or not they can be used reliably. In particular, the use of the DSM-IV criteria as an outcome measure for the treatment of problem and pathological gambling makes it imperative that test and retest scores can be meaningfully compared.

A DSM-IV score is attached to an individual depending on the number of DSM-IV criteria for pathological gambling that are met by the individual. Determining whether or not an individual meets a criterion can be decided in different ways. The DSM-IV criteria may be presented to individuals as a questionnaire (Beaudoin & Cox, 1999), incorporated in an intake interview (Stinchfield & Winters, 2001) or decided by clinical
interview (Sylvain et al., 1997). Where each item of the DSM-IV is treated as a question that can be answered ‘yes’ or ‘no’, the assumption is made that the criterion is sufficiently clear and straightforward that an accurate answer can be given. It is assumed that any individual can judge accurately whether or not the criterion applies to self. If the DSM-IV criteria are so transparent that individuals who gamble a great deal can reliably judge whether or not each applies to self, then the need for the probing that occurs in diagnostic interviews is unnecessary and more efficient procedures can be utilised in the assessment of individuals seeking help and in the measurement of the prevalence of pathological gambling in society.

An examination of the DSM-IV criteria for pathological gambling does not confirm the belief that they are transparently clear and does not suggest that they can be applied reliably without training and guidance. A brief consideration of each of the criteria leads to the conclusion that important decisions must be made about what will and what will not count as sufficient evidence that a given criterion is met.

**Preoccupation**

The individual is preoccupied with gambling (e.g. preoccupied with reliving past gambling experiences, handicapping or planning the next venture, or thinking of ways to get money with which to gamble).

How much thinking time amounts to preoccupation? Does reading the racing form while sitting in the washroom at work count as meeting the criterion? For five minutes? For an hour? Does it matter whether the thinking occurs at home or at work? Must you be thinking incessantly? Also, ‘occupied’ with thinking about gambling doesn’t mean ‘preoccupied’. All regular, non-pathological gamblers are occupied thinking about gambling some of the time. Important distinctions must be made and it is not immediately clear how those distinctions should be made.

**Tolerance**

The individual needs to gamble with increasing amounts of money in order to achieve the desired excitement.

What is the ‘desired level of excitement’? How much excitement is enough? Also, ‘needs to gamble’ is a little different from ‘deciding to increase bet size to make the gambling more exciting’. A poker player may leave the penny-ante game and choose to play for higher stakes in order to make the gambling more exciting. The distinction is subtle but relevant. One may choose to drink lemonade but need to go to the toilet.

**Control**

The individual has repeated unsuccessful efforts to control, cut back or stop gambling.

How many unsuccessful attempts are sufficient to meet criterion? And how serious must be those attempts? Is the intention to cut back sufficient effort? Is visiting a counsellor or consulting a friend sufficient? How recent must the attempts be? The word ‘has’ suggests that the attempts are recent and ongoing. Does that mean that attempts made twelve months ago are excluded?
Withdrawal
The individual is restless or irritable when attempting to cut down or stop gambling.

How restless or irritable must one be to meet this criterion? All habits may lead to a little restlessness when they end. Is that what is meant? Missing the six o’clock news may make one feel a little irritable; knowing that a good book waits for you at home can be the basis for feeling restless. However, it would be unreasonable to consider such restlessness or irritability as equivalent to the withdrawal symptoms when giving up smoking.

Escape
The individual gambles as a way of escaping from problems or of relieving a dysphoric mood (e.g., feelings of helplessness, guilt, anxiety, depression).

How much of a problem is sufficient? And how often counts as ‘escaping’. For example, if an individual gambles primarily for fun, but occasionally ‘as a way of escaping from problems’, is the criterion met? If, just once, a person plays the slot machines to relieve feelings of depression, is the criterion met? Does the criterion imply ‘most of the time’, ‘nearly always’ or just ‘sometimes’?

Chasing
After losing money gambling, the individual often returns another day to get even (“chasing” one's losses).

How often counts as ‘often’? The word ‘often’ may mean very frequently (‘I often drink water throughout the day’) or very infrequently (‘I often fill out my tax return incorrectly’). In the context of large losses, the individual may return to recoup the losses very frequently (‘often’), whereas in the context of multiple small losses, the thought of getting even (‘not often’) may be a minor factor.

Lying
The individual lies to family members, therapist, or others to conceal the extent of involvement in gambling.

It is well known that lies may be serious or trivial. ‘How long were you at the club?’ The answer ‘two hours’ is incorrect if the truth is ‘three hours’ or ‘ten hours’. In both cases the lying conceals the extent of the gambling. However, downplaying by an hour may have quite different consequences than a blatant lie accounting for eight hours. Again, the issue of frequency is important; ‘once now and again’ is quite different from ‘all the time’.

Illegal acts
The individual has committed illegal acts such as forgery, fraud, theft or embezzlement to finance gambling.

Even here, there are problems. What is meant by forgery, fraud and embezzlement may be relatively clear. However, theft ranges from, at one extreme, stealing thousands of dollars from outside agencies, such as employers, to taking a small note from the spouse’s
purse at the other extreme. Should minor acts of theft be treated in the same way as major acts? The scoring of this criterion depends heavily on this decision.

**Social impact**

The individual has jeopardised or lost a significant relationship, job, or educational or career opportunity because of gambling.

Quite apart from the difficulty of interpreting ‘jeopardised’, the term ‘significant’ is open to a wide range of meanings. Is it the opportunity to study for a tertiary degree, the academic course, the unit of study, or the essay topic that is ‘significant’? Is failing to have the opportunity to study for a tertiary degree equivalent to failing to go to University?

**Bail out**

The individual relies on others to provide money to relieve a desperate financial situation caused by gambling.

Again, the present tense implies that the problem is on-going. How often should this reliance occur? Once, twice or every time that there is a desperate financial situation caused by gambling? And must gambling be the sole cause or is a partial cause sufficient?

It is clear from this level of questioning that two individuals with exactly the same level of gambling problems could obtain markedly different DSM-IV scores depending on how the criteria are interpreted. Equally, the same individual may be classified as a “pathological gambler” by one clinician and as “not a pathological gambler” by a second clinician depending on how the clinicians interpret the criteria. Such variability in interpretation allows the possibility for research data to be degraded by experimenter bias on the one hand or demand characteristics on the other. For the DSM-IV criteria to be reliable, it would seem essential that the basis on which a criterion is judged to be met be made explicit.

**A structured clinical interview for pathological gambling using the DSM-IV criteria (SCIP)**

Clarifying the basis on which it is judged that a gambler meets any given DSM-IV criterion implies making clear how the components of the criterion have been interpreted. In practice, clarification implies making explicit a set of sub-criteria by which a decision can be reached on whether or not the DSM-IV criterion is met. The sub-criteria will make explicit the frequency, duration and intensity with which a phenomenon must occur. To an important extent, the specification of sub-criteria is arbitrary. Nevertheless, the intent of the DSM-IV criteria should be preserved if the sub-criteria are to have face validity. Thus the first task is to determine what is the intent behind the DSM-IV criteria.

The DSM-IV criteria are derived from the DSM-IIIR criteria (American Psychiatric Association, 1987), which in turn were deliberately modelled on the criteria for diagnosing substance dependence (Walker, 1992). Thus, the DSM-IV criteria are consistent with, and derived from, an addiction framework. The term “pathological”
implies a severity of addiction that is separate from and discriminably different from habitual behaviour that is widespread throughout the community. Whereas recreational gambling may be regarded as a leisure activity with some consequences for the individual, pathological gambling will have characteristics of powerlessness and unmanageability yielding impacts which are severe and long-lasting (Custer & Milt, 1985; Jacobs, 1986; Moran, 1975). Thus, in order to anchor the DSM-IV criteria at an appropriate level of severity the SCIP takes as its starting point a description of severity in terms of the impact of gambling on global functioning (table 1). This index of global functioning can be used as a direct reference for criteria involving social impact and as a standard by which to judge the severity of personal impact.

Table 1 shows the impact of gambling in different spheres of life. In order to meet a relevant DSM-IV criterion it is proposed that the impacts of gambling should be classified as severe or extreme and that mild to moderate impacts are insufficient to meet the appropriate level of severity implied by an addiction that is pathological.

With the global functioning index as a starting point it is now possible to examine each of the DSM-IV criteria asking what level of behaviour or outcome is required. In the context of frequency, duration and intensity of behaviour or outcome, the exact wording of each criterion is an important guide. Statements which imply more than one example demand sub-criteria reflecting plurality. Statements that imply that the phenomenon is ongoing demand recency and plurality. Statements which refer to phenomena which vary in intensity will be interpreted as requiring an intensity consistent with severe to extreme categories of the global functioning index.

The majority of DSM-IV criteria are set in the present; the exceptions are criteria eight and nine. Thus, one of the problems faced by clinicians, when attempting to determine whether or not a given criterion applies to an individual, is the period of time that will be considered as sufficiently small to be properly regarded as the present yet sufficiently long to limit chance or ephemeral fluctuations.
Table 1:

The Global Functioning Index. The table provides examples that reflect different levels of functioning within each domain.

<table>
<thead>
<tr>
<th></th>
<th>RELATIONAL</th>
<th>LEGAL</th>
<th>PERSONAL</th>
<th>VOCATIONAL</th>
<th>EDUCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>MILD</td>
<td>Occasional disagreements, most resolved</td>
<td>Late payment of debts</td>
<td>Mild distress</td>
<td>Noticed by other employees; lack of progress compared to peers of equal ability</td>
<td>Missed some classes; late assignments</td>
</tr>
<tr>
<td>MODERATE</td>
<td>Frequent disagreements predominate, most resolved</td>
<td>Default on debts; threats of legal action</td>
<td>Clearly present but manageable distress</td>
<td>Missed opportunities to advance; reprimand from boss; lost business</td>
<td>Failed to hand in work; missed many classes</td>
</tr>
<tr>
<td>SEVERE</td>
<td>Clearly dysfunctional relational unit; satisfying moments are rare. Most disagreements unresolved.</td>
<td>Conviction without incarceration; bankruptcy proceedings</td>
<td>Difficult to manage distress</td>
<td>Threatened with dismissal; demoted; missed promotion; business failed</td>
<td>Failed parts of course</td>
</tr>
<tr>
<td>EXTREME</td>
<td>Separation or divorce</td>
<td>Period of incarceration</td>
<td>Unable to manage distress</td>
<td>Sacked; asked to resign; bankruptcy</td>
<td>Expulsion; failed course</td>
</tr>
<tr>
<td>---------</td>
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</tr>
</tbody>
</table>
To some extent, the appropriate period of time is determined by the nature of the phenomenon described by a given criterion. ‘Preoccupation’ (criterion 1) requires a smaller time period than ‘control’ (criterion 3). However, a variable set of time periods for assessing the criteria can create other problems such as coherence and consistency in responding, and potential for overlap in repeated measures. For consistency, most items in the SCIP are based on a six-month time frame. One exception is made for ‘preoccupation’ for which a shorter time period of one month appears to be more appropriate.

**Sub-criteria of the SCIP for determining a DSM-IV score**

**Preoccupation**

Preoccupation is taken to mean that gambling is not restricted to an appropriate time and place, but that thinking about gambling happens on most days of the week. Furthermore, fleeting thoughts are assumed not to constitute preoccupation. One may fleetingly think of dinner every day of the week without being labelled ‘preoccupied’. Thus, a minimum total period of one hour per day is set as an arbitrary minimum implying preoccupation.

**Tolerance**

Determining whether tolerance is present is more demanding. It is assumed that tolerance may refer either to increasing bet size within a session or to increasing average bet size across sessions. Secondly, the increase in bet size must make the gambling more exciting. Finally, to be consistent with the addiction model, the increase in excitement cannot be minor but must be considerable (since this is the cause and focus of the gambling and the reason why it is unmanageable).

**Control**

First of all, ‘repeated attempts’ implies that at the individual tried to cut back or stop gambling at least twice. Making an effort to control, cut back or stop gambling implies actually achieving the goal temporarily. Thinking about stopping is not sufficient to be categorised as making an effort. Making an effort implies doing something. Thus, the SCIP seeks evidence of the behaviour involved in cutting back or stopping, either a reduction in money used for gambling or avoidance of an opportunity to gamble.

**Withdrawal**

In testing for withdrawal, it is important not to steer the individual by the way in which questions are asked. Many gamblers feel relieved and even happy when they stop gambling (Wray & Dickerson, 1979). Thus, it is important first to establish how the individual felt when cutting back or stopping. The words that the individual uses are important and should be used (instead of ‘restless’ or ‘irritable’ if appropriate) in establishing the intensity of the feelings. Withdrawal effects for drug addiction are intense. Thus it is important to establish that the feelings when stopping gambling
constitute severe distress rather than the normal ambivalence felt when missing an activity which is habitual rather than pathological.

Chasing

It is important to assess the chasing criterion for the escape criterion to avoid the possible overlap between these two criteria (chasing in order to escape a problem of serious debt). The difficulty in assessing this criterion occurs in the interpretation given to often. Certainly, returning to get even must occur sometimes. However, ‘often’ is more than ‘sometimes’ although it does not imply most of the time. More often than one in five was adopted as a minimum level of chasing to meet this criterion.

Escape

Escaping from problems is frequently cited as a major cause of pathological gambling (Jacobs, 1987; Petry et al., 2005). For the person who ‘gambles as a way of escaping from problems’, the escape motive can be understood as the main reason and one which accounts for most of the gambling. Similarly, mood changing is often seen as an important motive for gambling (Anderson & Brown, 1987; Brown, 1986; Griffiths, 1995). A person who gambles as a way of ‘relieving a dysphoric mood’ can be assumed to be one who gambles for this reason most of the time. Thus, the escape criterion is met by a person who gambles for escape on most occasions. The sub-criterion was set at 60% of occasions for this reason.

Lying

The on-going nature of the lying implies that it has happened in the past and can be expected to happen again. Lying on one occasion only will not be sufficient. Furthermore, the lying conceals a pathological level of gambling. Lying which conceals a modest level of gambling can be discriminated from lying which conceals pathological gambling by the likely impact on the relationship and the likely reaction of the target if the lies were to be revealed. Consistent with the global functioning index, the effect of revealing the truth has had or can be expected to have a serious to extreme impact on the relationship.

Illegal acts

‘Illegal acts’ implies that there has been more than one such act. Committing illegal acts to finance gambling is an indicator of the powerlessness of the individual to curtail the gambling. The crimes are major crimes that can be expected to have a serious impact on the life and liberty of the individual if discovered. Minor crimes, such as stealing from the spouse’s purse, do not have the required impact. Thus, this criterion can be established by reference to the global functioning index in the case where the crimes are revealed.
Social impact

In this criterion, one example will suffice. Each area (relationships, employment, education) must be assessed and examples can be referred to the global functioning index to facilitate a decision.

Bail out

The statement of the criterion as an on-going phenomenon implies that a financial bail out has occurred more than once. Consistent with the assumption that the financial situation is a serious one, the global functioning index can be used to determine whether the consequences of a failure to be bailed out could have been expected to be severe or extreme.

Examining the performance of the SCIP in assessing pathological gambling

The performance of the SCIP is examined with gamblers seeking treatment from the Gambling Treatment Clinic at the University of Sydney. The following aspects of performance are considered:

(a) internal consistency (alpha; Cronbach, 1951);
(b) predictive validity (correlation with measures of amount of gambling);
(c) comparisons of item distributions across studies;
(d) gender differences in DSM-IV items.

Method

Samples of gamblers

The data used in the analyses reported was collected with client consent from individuals who approached a problem gambling clinic at the University of Sydney. The measures of gambling behaviour reported were approved by the Human Ethics Committee of the University of Sydney. The data was collected from two groups of individuals:

(1) 220 consecutive clients who sought help from the Gambling Treatment Clinic at the University of Sydney (group A);
(2) 106 clients who completed treatment and were assessed six months following completion of treatment (group B);

The mean age of clients was similar across samples (group A, 39.7 years; group B, 41.1 years). Interestingly, the distribution of gender was similar across groups but strongly biased towards male (group A, 78% male; group B, 75% male). By choosing groups pre and post treatment, it is possible to equivalence samples for demographic factors and gambling involvement while providing a spread of scores on the DSM-IV criteria. Other studies achieve the same goal by incorporating a community group (Stinchfield, Govoni & Frisch, 2005) or by including a non-addicted hospital group (Lesieur & Blume, 1987). However, such approaches are not able to equivalence gambling involvement.
Procedure

Individuals in group A approached the Gambling Treatment Clinic for help in coping with problem gambling. At the second session, the SCIP was administered by the Clinical Psychologist who was allocated the client for treatment. In addition to taking part in the SCIP interview, each individual provided information on:
(a) the number of elapsed days since the last gambling session;
(b) the number of gambling sessions in the last month;
(c) the number of gambling sessions in a normal month;
(d) income for the last month;
(e) the amount of money lost gambling in the last month;
(f) the amount of money normally lost gambling in the last month;
(g) the size of the debt caused by gambling.

Individuals in group B were approached between six months and two years after treatment with a request to return to the Gambling Treatment Clinic for post-treatment assessment. All pre- and post-treatment assessments were conducted face-to-face using similar procedures and the same interview protocol. The study received ethical approval from the University Human Ethics Committee.

Results

The distribution of DSM-IV scores in a treatment population using the SCIP

A total of N = 326 (group A, N =220; group B, N = 107) individuals seeking help from the Gambling Treatment Clinic at the University of Sydney consented to provide data for the study.

Table 2:

Measures of gambling and proportion of individuals meeting each DSM-IV criterion assessed by the SCIP. The sample size is the N=220 individuals pre-treatment (group A) and N=106 individuals post-treatment (group B).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-treatment A</th>
<th>Post-treatment B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days since last gamble</td>
<td>11.87</td>
<td>97.34</td>
</tr>
<tr>
<td>N sessions last month</td>
<td>9.37</td>
<td>3.70</td>
</tr>
<tr>
<td>N sessions normal month</td>
<td>12.65</td>
<td>3.73</td>
</tr>
<tr>
<td>Proportion of income gambled last month</td>
<td>0.8</td>
<td>0.20</td>
</tr>
<tr>
<td>Proportion income gambled normal month</td>
<td>0.67</td>
<td>0.18</td>
</tr>
<tr>
<td>Debt/Income per month</td>
<td>6.44</td>
<td>1.32</td>
</tr>
<tr>
<td>SCIP Criterion 1: Preoccupation</td>
<td>0.70</td>
<td>0.10</td>
</tr>
<tr>
<td>SCIP Criterion 2: Tolerance</td>
<td>0.25</td>
<td>0.05</td>
</tr>
<tr>
<td>SCIP Criterion 3: Control</td>
<td>0.79</td>
<td>0.16</td>
</tr>
<tr>
<td>SCIP Criterion 4: Withdrawal</td>
<td>0.21</td>
<td>0.05</td>
</tr>
<tr>
<td>SCIP Criterion</td>
<td>SCIP ≤ 4</td>
<td>SCIP ≥ 5</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>SCIP Criterion 5: Escape</td>
<td>0.50</td>
<td>0.39</td>
</tr>
<tr>
<td>SCIP Criterion 6: Chasing</td>
<td>0.39</td>
<td>0.21</td>
</tr>
<tr>
<td>SCIP Criterion 7: Lying</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>SCIP Criterion 8: Crime</td>
<td>0.19</td>
<td>0.01</td>
</tr>
<tr>
<td>SCIP Criterion 9: Social loss</td>
<td>0.58</td>
<td>0.34</td>
</tr>
<tr>
<td>SCIP Criterion 10: Bail out</td>
<td>0.48</td>
<td>0.33</td>
</tr>
</tbody>
</table>

The means of these gambling variables are shown in table 2. The amount of money lost in the last month, in a normal month, and the debt accrued were divided by the monthly income since proportion of income lost gambling is strongly related to the level of gambling problems experienced (Productivity Commission, 1999).

The mean DSM-IV score of the pre-treatment group (µ = 5.07) and the post-treatment group (µ = 1.15) are less extreme than the scores obtained by Stinchfield et al (2005) for their pre-treatment group (µ = 6.77) and community comparison group (µ = 0.58).

**Internal Consistency**

Cronbach’s alpha was calculated for the full sample and for the pre-treatment and post-treatment samples separately. For the full sample, with N = 326 scores, alpha is 0.76. For the component samples alpha is 0.43 (pre-treatment) and 0.75 (post-treatment).

**Predictive Validity**

If DSM-IV scores are a measure of the severity of pathological gambling, then in a treatment population, it would be expected that individuals meeting five or more of the criteria for pathological gambling (ie diagnosed as having ‘pathological gambling’) would be more extreme on various measures of extent of gambling than would individuals meeting four or fewer criteria. The pre-treatment sample was split into two sub samples based on the number of criteria met. Individuals with a SCIP score of ≥ 5 were compared with individuals having a SCIP score of ≤ 4 on the numbers of days since last gambled, the amount of money gambled in the last month, the number of sessions in the last month, and the size of the gambling related debt. Table 3 shows the comparisons.

**Table 3:**

A comparison of problem gamblers meeting the DSM-IV criterion for pathological gambling (SCIP ≥ 5) and problem gamblers not meeting the criterion on measures of gambling involvement.

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>SCIP ≤ 4</th>
<th>SCIP ≥ 5</th>
<th>t value</th>
<th>significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days since last gambled</td>
<td>15.1</td>
<td>10.5</td>
<td>1.67</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Amount gambled last month</td>
<td>$2,000</td>
<td>$2,074</td>
<td>0.18</td>
<td>ns</td>
</tr>
<tr>
<td>Sessions in last month</td>
<td>7.8</td>
<td>10.0</td>
<td>1.85</td>
<td>P&lt;0.05</td>
</tr>
<tr>
<td>Gambling related debt</td>
<td>$14,227</td>
<td>$23,377</td>
<td>0.99</td>
<td>ns</td>
</tr>
</tbody>
</table>
Pathological gamblers last gambled approximately five days more recently than non-pathological problem gamblers and gambled for approximately two sessions more per month. However, the total amount of money lost and the total debt were not significantly different between the two groups.

Comparisons of item distributions across studies

Diagnosis of pathological gambling may be conducted by self-report questionnaire, by clinical interview, or be structured interviews such as the NODS or SCIP. Ideally similar distributions would result independently of the method used. Table 4 shows the comparison of item distributions for treatment samples using different methods of obtaining data.

Table 4:

A comparison of item distributions obtained for individuals seeking treatment for excessive gambling. Scores are the percentages of each sample that met criterion.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>SCIP(^a)</th>
<th>NODS(^b)</th>
<th>Interview(^c)</th>
<th>Q(^\text{\textasciitilde})aire(^d)</th>
<th>Mixed(^e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N=220</td>
<td>N=121</td>
<td>N=35</td>
<td>N=57</td>
<td>N=1155</td>
</tr>
<tr>
<td>Preoccupation</td>
<td>68</td>
<td>77</td>
<td>100</td>
<td>67</td>
<td>62</td>
</tr>
<tr>
<td>Tolerance</td>
<td>25</td>
<td>39</td>
<td>97</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>Loss of control</td>
<td>78</td>
<td>42</td>
<td>86</td>
<td>75</td>
<td>68</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>21</td>
<td>48</td>
<td>40</td>
<td>63</td>
<td>58</td>
</tr>
<tr>
<td>Escape</td>
<td>49</td>
<td>69</td>
<td>31</td>
<td>63</td>
<td>78</td>
</tr>
<tr>
<td>Chasing</td>
<td>82</td>
<td>80</td>
<td>86</td>
<td>74</td>
<td>77</td>
</tr>
<tr>
<td>Lying</td>
<td>60</td>
<td>62</td>
<td>91</td>
<td>72</td>
<td>69</td>
</tr>
<tr>
<td>Crime</td>
<td>15</td>
<td>12</td>
<td>9</td>
<td>23</td>
<td>29</td>
</tr>
<tr>
<td>Social impact</td>
<td>59</td>
<td>43</td>
<td>80</td>
<td>30</td>
<td>54</td>
</tr>
<tr>
<td>Bail out</td>
<td>47</td>
<td>37</td>
<td>23</td>
<td>49</td>
<td>55</td>
</tr>
</tbody>
</table>

(a) current study. Treatment sample, six-month time frame.
(b) Toce-Gerstein et al. (2003). Community sample scoring 3+ DSM-IV criteria.
(c) Duvarci et al. (1997).
(d) Beaudoin & Cox (1999). Treatment sample, one-year time frame.
(e) Crisp et al. (2004). Treatment sample.

Two points are apparent from this comparison. Despite the different samples tested using different methods and different time frames, there is a high level of similarity in the shapes of the distributions. Internal consistency is alpha = 0.90. The second point is that the major deviation of the SCIP distribution from the other distributions occurs for the ‘withdrawal’ criterion where the SCIP finds only 21% of problem gamblers meeting the criterion whereas other approaches find 40-63%. This may be explained by the SCIP requirement that there is severe distress (difficult to manage) when stopping gambling. Furthermore, questionnaire approaches typically ask only whether distress is felt when
stopping (which may produce a compliance response) whereas the SCIP asks first what is felt (which may be relief or elation rather than distress).

**Gender differences in responses to DSM-IV items**

Crisp et al. (2004) have reported that there are significant differences between males and females in meeting come criteria. In particular, Crisp et al. found that males were relatively more likely to exhibit preoccupation (65% M, 59% F), conduct illegal acts (33% M, 25% F), and jeopardize relationship, job or education (60% M, 46% F). Females were more likely to use gambling as an escape (81% F, 75% M). Table 5 shows the comparisons for each criterion obtained in the current study and in the study reported by Crisp et al.

### Table 5:

A comparison of male and female distributions across DSM-IV criteria using the SCIP. The results obtained by Crisp et al. are shown for comparison.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Current Study</th>
<th>Crisp et al. (2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Preoccupation</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td>Tolerance</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>Loss of control</td>
<td>76</td>
<td>80</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Escape</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>Chasing</td>
<td>81</td>
<td>85</td>
</tr>
<tr>
<td>Lying</td>
<td>61</td>
<td>61</td>
</tr>
<tr>
<td>Illegal acts</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Social impact</td>
<td>60</td>
<td>59</td>
</tr>
<tr>
<td>Bail out</td>
<td>48</td>
<td>44</td>
</tr>
</tbody>
</table>

The large sample size employed by Crisp et al. increases the likelihood of finding significant differences. For this reason it is important to pay more attention to the size of the difference rather than the probability of the difference arising by chance. When size and direction of effect is considered, there are two important differences between the SCIP effects and the effects obtained by Crisp et al. First of all, Crisp et al. report a large difference in the frequency with which males and females meet the social impact criterion (jeopardizing a relationship etc.), whereas the SCIP data shows no difference. The Crisp et al. data may well represent a difference in perceiving or interpreting the social impact of gambling rather than a real difference in meeting the same criterion tested by the same sub-criteria (as occurs with the SCIP).

Secondly, the SCIP data yields a significant difference on the escape criterion thus confirming the difference observed by Crisp et al. where females are more likely to meet the criterion for gambling as a way of escaping problems or low mood states. However, the difference observed using the SCIP (18% more for females) is much larger than the difference observed by Crisp et al. (6% more for females). The consistency of the
direction of the effect suggests that the effect is real. The major difference is that the SCIP sets a relative frequency of gambling to escape problems. In this way, the standard for meeting this criterion is less dependent on perception.

References


DEFINING AND EXPOUNDING RESPONSIBLE GAMBLING

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ABSTRACT

Based on an examination of reports in the popular media over recent years, gambling operators have become proprietors of the term ‘responsible gambling’. As a consequence the concept of the obligations of gamblers themselves seems to have become almost redundant. This paper defines and examines responsible gambling techniques and provides practical and uncomplicated examples from across the gambling spectrum. The basic elements of the techniques are summarised as measures such as personal funds control, rigid staking plans, ‘stop loss’ and ‘take the win’ procedures, comprehension of the structure of the games and an appreciation of who wins and who loses in gambling. The paper then surveys the extent to which such techniques are presently communicated to gamblers and proposes how the education of gamblers and the community generally might be enhanced in the future.

Introduction

Gambling legislation and regulation in the latter part of the twentieth century was marked, across the globe, by a generation of politicians who approved, encouraged and facilitated the legalised expansion of the activity of risk-taking within their jurisdictions. (Munting: 1996) It can reasonably be assumed that the focus of the representatives was the potential increase in Government revenue achieved by the less than obvious new taxes on their constituents. In some cases the new or expanded gambling activities were authorised replacements for existing and widespread illegal operations. Obvious examples are off-the-course betting, casinos and lotteries. The latter emulating processes like the ‘numbers racket’. Exceptions with forms of gambling not previously readily available especially included electronic gaming machines (EGMs, Pokies, Slots or VLTs). Typically public absorption of the additional legal gambling was so intense that two community segments expressed great concern with the developments. Firstly those from the world of commerce who had missed a turn at the new gravy boat of legal gambling revenue and secondly those from religious and welfare groups who found they were encountering more ‘problem gamblers’ in society. Quite reasonably it was the latter group that excited media attention with the consequences that the subjects of problem gambling and the further expansion of gambling became issues of concern to the politicians who had earlier legislated to create the environment now under attention.

The reaction of the politicians was predictable: enquiries, funding for treatment of problem gamblers and more regulation of the gambling industry. Characteristically all three proceeded at the same time without any obvious interaction or coordination. The cost for government of these measures was typically skimmed from the tax revenue generated by the gambling. For example: Casino Community Benefit Funds. A broad
range of academic disciplines became involved undertaking research assignments for governments. Unfortunately many of the researchers went about their work in the absence of a basic grounding in the activity or its human psychology. A situation not aided by the long-term overall lack of studies in the topic. This deficiency of academic attention to the subject of gambling has often been noted. For example John Rosecrance, an American sociologist, emphasised the ‘paucity of research’ concerning the study of gamblers in their natural environment. (Rosecrance: 1985) Notwithstanding these shortcomings enough sound material was published to show that problem gambling was a serious issue in many communities.

Programs of Social Responsibility

Whether driven by the findings about the extent of problem gambling or not, the concept of gambling industry operators formally implementing programs that set out to define their codes of behaviour towards customers and the general community seems to commenced from the early 1980s. Certainly the American Gaming Association documents that one of its founding members, Harrahs Entertainment Inc., introduced programs of social responsibility from that time. (American Gaming Association: 2005) These early programs concentrated especially on prevention of under-legal-age gambling and the provision of contact details for counselling services, typically through signs placed around the venues. Later customers were given options on the extent of approaches to them by the casinos: self-restriction, and even on admission to the venue: self-exclusion. Over time the programs spanned ever-wider issues of the responsible conduct of gambling. Not all gambling operators adopted such programs of social responsibility and governments commenced the introduction of legislation to ‘encourage’ their use through ‘harm minimisation’ measures. In the State of New South Wales from 1 January 2001, it became mandatory for hoteliers, club managers and staff involved in gaming activities to undertake a one-day Responsible Conduct of Gambling Course. Authorised organizations conduct the courses with the following elements required for inclusion:

- The course must include information about –
  - The NSW machine gambling industry.
  - The indicators and impact of problem gambling.
  - The gambling harm minimisation framework.
  - Strategies for implementing responsible gambling practices, and
  - The benefits of implementing responsible gambling practices. (Department of Gaming and Racing Internet)

Course notes published by one of the authorised training organizations comprises some 100 A4 pages. (Restaurant & Catering) It will be noted that the Department’s publication uses the abbreviation of responsible gambling practices when in fact it is referring to the conduct of socially responsible gambling operations practices. Use of a similar abbreviation is common within the industry with many, for example, employing ‘responsible gambling coordinators’. None of this activity, however, is about educating gamblers to be responsible in their actions unless simple exhortations like ‘bet with your head not over it’ are to be included. Instead it is about a wide-ranging program of
measures aimed at detecting and helping those at risk of engaging in problem gambling and those that have already entered the undesirable state. In some jurisdictions initiatives such as mandatory cash-outs and the like are being implemented along with forced reductions in the availability of gambling facilities such as restrictions on EGM numbers. Only long-term studies will determine the effectiveness of these harm minimisation endeavours.

**Defining Responsible Gambling**

Responsible gambling is seen to require the individual gambler to undertake the activity in a process of rational thought where he or she is accountable to themselves and their dependants for the actions. There are many items of popular literature that describe responsible gambling processes. An Australian writer uses the term ‘A1 gamblers’: ‘A1 Gamblers are individuals who enjoy…gambling, but keep it in proper perspective. They like the excitement gambling provides, but only risk disposable funds that are not required for the essentials of living.’ (Bayes: 1996) A United Kingdom author advises: ‘Before you go (to gamble), learn to play the games. (Levez: 1996) In the USA a researcher suggests that the ‘essentials for playing like a genius’ are: ‘learn the rules, set a loss limit, leave the cheque book, credit and debit cards at home, don’t apply superstitions and never play as an escape from personal problems’. (Brinsman: 1999) Within government and welfare agencies gratis pamphlet style publications are very numerous. The NSW Department of Gaming and Racing has a ‘Play Smart’ gambling brochures series, one of which sets out some basic rules of responsibility: ‘set time and money limits and stick to them, keep a record of all your wins and losses’. Another in the series informs gamblers of the truly random processes that apply with EGMs. (Department of Gaming and Racing: Play Smart) A publication from the Victorian Advocate for Responsible Gambling provides a succinct definition for the term: ‘Responsible gambling means staying in control and only spending money that a person can afford to lose. It also means making decisions about gambling based on **reliable and clear information**.’ (Victorian Advocate for Responsible Gambling: c 2004). This researcher has added the emphasis to the quotation. An extensive examination of these items of literature and many publications from around the world as issued variously by the industry, government, and welfare groups suggests gamblers should learn the following list as a mantra of responsible gambling:

- Treat gambling as a form of entertainment
  - ‘Buy’ excitement with a ticket just as if it was the movies
  - Know that most park footballers don’t play at Wembley and most gamblers don’t become professionals
  - Understand that not even professionals win all the time
- Know the form of gambling
  - Learn the rules
  - Study the strategies that may be useful
  - Understand the mathematics involved
- Ensure that only disposable funds are used for gambling
  - Never gamble if a win is essential
  - Don’t go gambling when emotion levels are low
  - Treat all outlays as losses and all collects as wins
• Keep a record of all gambling
  o Copy down all the outlays and wins: Lottery/Sports Bets/EGMs/everything
  o Regularly read the record and reflect on the situation
• Plan for a gambling session
  o Set down time limits where the time is disposable or recreational
  o Determine the form of gambling to be used
  o Aim for a sensible target of wins within the time limit
  o Cease gambling if the win target is reached early
• Apply rules of personal conduct
  o Never cash cheques or take funds electronically in a gambling venue
  o An exception to the first is that the action is valid if done while leaving
  o Avoid high intakes of alcohol while gambling or before gambling
  o Don’t switch forms of gambling to overcome ‘unlucky’ sequences
  o Attempt to remove all consideration of superstitions while gambling
  o Stick to a rigid staking plan
  o Find some other diversion if the mantra can’t be learned and applied.

Failures in Communication of Responsible Gambling

None of the publications surveyed covered the full list of factors to be observed by gamblers acting in a responsible manner. Apart from the popular ‘how to’ literature most publications overlooked or gave minimal attention to the points listed under the headings ‘Know the form of gambling’ and ‘Keep a record of all gambling’. A number of points under other headings were also frequently overlooked. It can be speculated that the fault stems from the documents being prepared by those with an inadequate understanding of all aspects of gambling which in turn points back to the ‘paucity of research amongst gamblers in their natural environment’ situation noted above. The question remains: how and where does a novice learn to be a responsible gambler?

Some Simple Gambling Strategies

The first thing a novice gambler should learn is to understand which games involve skill and which are determined by chance. In a casino the blackjack and roulette tables may well be adjacent but the first is a game of skill and the second one of chance. Both, however, are approached by players intent on applying strategies or systems. In blackjack multi-pack deck card counting is a skill that can be used along with complex decision tables based especially on the first cards dealt to the player and the croupier. (Mandos: 1998) Highly experienced players add to this the Kelly mathematical formula for calculating the amount to be staked. (Windross: 2003) As a first step towards numeracy in blackjack novice players could learn the basic decision tables and the simplest form of card counting that involves keeping a tally of the number of tens (cards of king, queen, jack and ten) left in the deck. In a four-pack deck there are 64 cards of value ten. When the deck is heavy in tens the advantage lies with the players and it is reasonable to increase the amount of stakes. Conversely when the deck is light in tens the advantage is with the croupier and base stakes should be used if play is continued. In roulette most of the strategies involve staking plans although some players look to the detection of wheel or croupier bias. For the wheel to be biased it needs to be unbalanced or malfunctioning. In the case of the croupier the theory is that a wheel spin and ball toss human action
becomes almost mechanical with constant application. Aware of these player strategies most casinos have a display showing the sequence of recent selected numbers to aid in the system. This obviously suggests that the operators find no basis for the strategy. To be doubly sure, however, the house will regularly rotate wheels and croupiers. Staking strategies are numerous for roulette and include the processes known as Martingale: double on a loss, d’Alembert: add on a loss, subtract on a win, Labouchère: number cancellation series, and Reverse Labouchère: backwards number cancellation. (Arnold: 1978) These strategies can be useful if the gambler sets strict loss limits and quits while winning.

The Australian Gaming Machines Manufacturer’s Association (AGMMA) estimated that there were about eight million EGM-like machines operating around the world of which about 2.4% existed in Australia (AGMMA: c. 2000) Consequently there are many opportunities for persons to originate ideas to optimise their methods of play. Most of these ideas are erroneous and based around when a machine ‘should payout’ thus completely overlooking the fact that the basic game usually lacks any requirement of skill as results are completely random. Stop loss limits and an approach of quit while in front are the only strategies that should be applied although as Michael Walker has pointed out the majority of players avoid the use of the fair-bet ‘gamble’ (double or nothing) option that is available on many Australian machines. (Walker: 2004) As the odds with double or nothing are far more in favour of the player than the standard game then players should take the option on every win. Alternatively it seems the player should at least select the option when the payout has not exceeded the game stake, i.e., where the player has selected multi-line plays outlaying say 20 cents on a one cent per line machine and the payout was less than 20 cents.

Draw Lotteries and their companions Lottos have comprehensive techniques of random selection suggesting that player logic is redundant. Two processes, however, are proposed here as matters of interest to responsible gamblers. One relates to the chance of winning a prize in a lottery and the second to number selection in Lotto. In NSW there are two types of draw lotteries. The ticket cost of entry for one is $2 and for the other $5. The number of conducted draws and observations at sales outlets reveals that the $2 is easily the most popular with players. Yet the chance of winning a prize in the lotteries is one in 20 with the $2 and one in 13 with the $5. (NSW Lotteries: Internet) For Lotto in NSW an extensive study of draw results showed that sharing of the first prize pool, and thus lower returns, was more common when all the numbers drawn reflected the range of number of days in a month, i.e., numbers one to 31. Although the set of results, when all the numbers drawn were above 31,was not as extensive a sample the study also showed that a group of players were aware of the first anomaly. Consequently players aiming to win first prize and limiting the prospect of sharing should have a set of selected numbers spanning both sets: one to 31 and 32 to 45. (Windross: 2003) A representative of the Victoria based Tattersalls Lotteries recently partly confirmed this by urging gamblers to ‘select higher numbers because many people use their birthdays when marking entries’. (Lee: 2005)

Betting on horse and greyhound racing is an activity involving skill and experience but the intricacies of the endeavour mean that even the astute application of both do not necessarily result in a winning gamble. Nonetheless it has been noted that professional
betting syndicates applying techniques of money management and in-depth form assessment can win over time. As well some non-professional bettors can also be seen to be successful applying similar processes probably combined with some luck. (Windross: 2005) An adage for money management in betting on racing but equally applicable to other forms of gambling was repeated to the researcher: ‘Before you head off to punt look at how much money you have and take out enough for all the essentials. Leave that at home, put the rest in your pocket and say, “I’ve lost that!” When you come back, empty out your pocket and say, “I’ve won that!”’ The majority of bettors, however, have been adjudged in a qualitative survey to follow practices summarised as either naïve or superstitious and to ‘sometimes win, sometimes lose’. (Windross: 2002) Given the fact that professionals continue to operate in the field it must be that loss predominates for the majority.

**Education for Gamblers**

In Australia as in many other parts of the globe there are multiple opportunities for adults to participate in legal gambling. There are numerous product categories and the marketing of them is extensive. On a scale of simplicity of participation the range is from virtually no need for understanding or skill and almost instantaneous purchase such as in raffles, art unions and lotteries through to blackjack: a product that embraces a necessity to travel to a casino and a sound appreciation of the rules for playing. An absence of the latter is likely to lead to disapprobatory comments from both the dealer and other players. All gambling products should be consumed using principles of money management and an understanding of the techniques involved in superior play. Nonetheless there is education void as regards responsible gambling. As already noted the industry use of the term is a misnomer although some operators do offer a limited amount of customer education. An example is Jupiter’s Casino at the Gold Coast, Queensland. There customers are offered simple training sessions in blackjack. Other operators provide video and printed illustrations of the basic methods of play. There appears to be, however, a complete lack of education facilities for playing techniques and money management. There are many examples of printed works for these two factors, as noted earlier, but most gamblers, especially novices, probably never see these items of literature. Thus it is difficult for any novice gambler to receive the knowledge that would enable a pass, let alone a credit or distinction, in the society examination for ‘responsible gambling’.

**Who should provide education in responsible gambling?**

Amongst the stakeholders with an interest in gambling are: government, industry, researchers, welfare groups and health agencies. One or more of these stakeholders should ensure that education in responsible gambling is available. It does not seem likely that society, as a whole would support the concept of responsible gambling in all of its factors becoming a regular primary or high school subject. In the public adult education field most evening colleges have a multitude of ‘how to’ courses on their schedule. Look in those schedules for gambling subjects, however, and most often the closest match will be horse riding or even ‘horse whispering’. For many activities there are private schools operating courses like ‘learn to: act, dive, drive, fly, model, swim, etc. There are none, however, for gambling. A like industry to gambling may be found in the share market or
stock exchange. The Australian Stock Exchange (ASX) allocates considerable effort to the field of customer education. It offers numerous education courses and printed works both gratis and for a fee. The ASX regularly runs free-to-enter competitions where investors can operate dummy investment portfolios under live trading conditions. This suggests the idea that it is the gambling industry that should accept the role of education in responsible gambling. Ideally an overarching representative body like the Australian Gaming Council should undertake this but if that is not achievable then the task should be the tackled by the individual industry members. As many members already have responsible gambling coordinator positions and functions then the effort required should not be beyond the resources so as to enable prompt action in the form of the creation of appropriate sponsorships within the adult education field. The alternative would be to run the training within the industry venues using in-house staff or contractors.

What would the education comprise?

It is envisaged the notes for the first tutorial might look something like the following:

Learning the Basics:
- How should you apply the Law of Averages?
- What is probability?
- How are odds determined?
- What is the number of possible winning combinations in any gamble?
- How is the operator (house) percentage set?
- Can systems be useful? What is a martingale?

Illustrations of some Winning Techniques and use of Know-how:
- Play the $2 lottery or the $5 lottery?
- Selecting Lotto and Powerball numbers.
- Visiting the casino:
  - Blackjack.
  - Roulette.
- Horse racing:
  - Winning numbers.
  - How often do they get it right?
  - Market movers.
- Playing the pokies:
  - Know the basics.
  - Setting limits.
  - Using the gamble option.

Applying personal discipline:
- Keep a record of all your gambling.
- Use the ‘how much can I afford to lose’ principle every time you gamble.
Will gamblers accept education in responsible gambling?

The volume and extent of availability of publications for responsible gambling techniques does not suggest the existence of latent great public demand for such works. Publishers have obviously determined that people may be prepared to read guides to better cooking, landscape gardening or weight reduction but not responsible gambling. Still this was probably the prevailing attitude when ‘get fit’ programs were first proposed. Gamblers need to be persuaded that responsible gambling is good for them. A pointer of promise is the number of very dubious ‘how to get rich’ systems that continue to be advertised for horse race betting and lottery playing. The subscribers to these schemes are obviously keen to improve their techniques.

Conclusions

Notwithstanding the widespread use, amongst gambling industry stakeholders, of the title ‘responsible gambling’ for programs and staff titles there is little availability of education in responsible gambling techniques. Novices in the field can either engage in difficult to facilitate self-help steps or resign themselves to remaining ‘mug punters’. Education is, however, feasible and capable of relatively simple introduction. Precedents point to the gambling operators or their representative body as being those most suitable to facilitate such education that can have the form of face-to-face training or video equivalents. The alternative is perhaps, government intervention.

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