

Chapter 5: Harm Minimisation Strategies, Interventions and Services

5.1 Overview

The Australasian Gambling Review (AGR) provides a detailed analysis of strategies and services that have been implemented or suggested to reduce, or minimise, gambling-related harm. The analysis divides these strategies and services into three principal groups based on the nomenclature widely used in public health research: primary, secondary and tertiary. Primary interventions are general wide-ranging strategies that attempt to protect people from developing harm before it has occurred. Secondary services or strategies try to intercept people at the point where harm develops and to reduce or minimise problems before they can become any worse. Tertiary services are those which are designed to provide assistance to people who have already been subjected to significant harm. The aim of this chapter is to provide a critical review of existing gambling-related strategies, interventions and services that fall into each of these three categories. The first part of the chapter focuses largely on community education initiatives and the effects of promotions and advertising; a second section examines many venue-based interventions; and a final section examines the nature of current treatment services in Australia and the research available to support the efficacy of those services.

5.2 Primary Intervention Strategies

5.2.1 School-based Education Programs

The fact that many gamblers have been found to hold irrational or erroneous beliefs about the nature of gambling has led to the suggestion that people could be shielded from some of the harms associated with problem gambling by providing them with more accurate information about the true nature of gambling. Given the perceived success of safe-sex campaigns and drug and alcohol education programs based on a similar logic, a number of State Governments within Australia have made attempts to implement similar gambling-related programs within schools. Examples of these include the 'Dacey Dealings' campaign in South Australia (DECS, 2005), 'You Figure It Out – Know the Odds' in Victoria, the 'Responsible Gambling Curriculum' and Responsible Gambling Teaching Kit developed for Queensland schools (Curtin &

Honeyfield, 2002), Gpack in Victoria, and the Australasian Gaming Council's curriculum resource.

All of these programs contain similar elements. Each curriculum examines the nature of gambling (e.g. what activities involve gambling) and its associated risks, the odds of winning when one gambles (lotteries are commonly used as examples), and appropriate help-seeking strategies. Programs vary in the range of activities or methods by which the information is conveyed. Some, such as the Queensland program, rely heavily on various forms of electronic multi-media such as CD-Roms and Internet pages, whereas others, such as the South Australian program, include some interactive games that allow young people to engage in educational games involving numbers and chance under the supervision of teachers. All programs include video material and class exercises.

Although these programs have been subjected to evaluation, little of this information is readily available to provide guidance to public health policy-makers. Nevertheless, it is possible to reach some reasonable conclusions about the effectiveness of these programs based on first-hand experience and overseas research. On the whole, these programs are well designed and well received by young people. They also enhance young people's awareness of gambling-related issues, and their knowledge of the odds of winning. However, a difficulty with these programs is that the children who are most responsive to the messages may not necessarily be the ones most at risk of gambling (i.e. there is always a danger with any public health campaign that it preaches only to a converted audience). The other significant difficulty is that the funding for these programs is not always ongoing, so that the messages only reach a single cohort of students, and not necessarily students in every school. Previous adolescent research in Australia by Delfabbro, Lahn and Grabosky (2006) has also shown that young problem gamblers do not appear to have a poorer understanding of gambling-related odds. In fact, there are some areas of understanding where their knowledge tends to be superior (e.g. understanding of probabilities). This research, along with some other recent overseas studies by Ladouceur in Canada, suggests that it may be more important to focus on idiosyncratic and irrational beliefs, rather than merely focus on objective, statistical information. As discussed in the previous chapter, gamblers often possess what is termed an 'optimism bias' and an illusion of

control which means that they interpret events in a biased manner. Even though they may understand the odds of winning to be poor, they believe that they are somehow different from other people, and so the odds of them personally winning are somewhat higher than for others.

For these reasons, there is a need, from an educational and public health perspective, to obtain greater information concerning the effectiveness of these programs, and whether they have any long-term impacts on problem gambling in early adulthood.

5.2.2 Community and Venue-based Information

A very similar train of logic underlies attempts to include responsible gambling information in venues and in community education campaigns (Blaszczynski, 2001; Dickerson, 2002). A number of TV and radio advertising campaigns have been run in different Australian States, all with the intention of creating greater awareness about the dangers of gambling and the availability of treatment services. Very little information is available concerning the broader preventative impacts of these services. One reason for this is that people may already be aware that gambling is a problem in the community, and so the advertising only serves to reinforce existing awareness. For example, when community attitudes and awareness have been assessed in community prevalence studies (e.g. McMillen et al., 2003 in Victoria; Roy Morgan Research, 2001, 2005 in Tasmania), people usually appear to be aware that gambling is a problem within the community and are able to describe many of the impacts. However, a clear public health benefit of these campaigns is that they may encourage people to be more aware of how gambling is affecting them personally. Almost all of these campaigns have been successful in contributing to a significant short-term increase in the number of people seeking assistance.

There have also been several studies and reports that have examined whether the availability of responsible gambling information in venues influences problem gambling (e.g. Australian Gaming Council, 2006; Mills, 2002). The AGR provides a summary of the different types of information that are usually provided (information regarding the importance of gambling responsibly, the availability of support services, and information on gambling odds). As pointed out by Mills (2002), there are many empirically-based guidelines concerning the best way in which information should be

conveyed in venues based on the experiences drawn from many years of anti-smoking and safe-drinking campaigns. These techniques focus on the most effective ways to make people aware of relevant information, to attend to it, and recall it. Attention is also directed towards the most appropriate way in which to frame safe gambling messages such as having a focus on personally relevant examples (e.g. gambling can harm your family) rather than simply telling people not to gamble.

Other venue-based information (presented usually in pamphlets) has provided details concerning the rules and odds of various gambling activities as well as some of the fallacies to which people who gamble might fall victim (e.g. the gambler's fallacy or non-independence of events on EGMs) (Blaszczynski, Ladouceur, Nower, & Shaffer, 2005). Some brochures set out the typical chances of obtaining certain outcomes on EGMs, and provide short checklists of behaviours that might indicate that a person has a gambling problem. All of this information appears, at first glance, to be very useful and is generally accurate and well presented. However, as Delfabbro (2004) points out in a detailed review, there may be many practical challenges associated with ensuring that problem gamblers take heed of this information. Gamblers may deny that information applies to them, believe that they have special ways to 'beat the odds' (e.g. strategies, personal luck), misinterpret the information, or refuse to believe it because of what they consider to be evidence to the contrary (e.g. there may have been occasions when they persisted for many hours and eventually got a large win).

Research into the effectiveness of venue-based information is relatively sparse, but informational strategies continue to be a cornerstone of most responsible gambling initiatives and venue codes of practice. Hing (2004), for example, sent out 6000 surveys to members of four Sydney clubs and got 954 replies. In her survey, she asked patrons whether they were aware of responsible gambling messages within venues, whether it was useful as a way to assist problem gamblers, and whether it had influenced their own behaviour. Most people were aware of the signage and information; for example, 86% recalled having read something about the risks of gambling and 70% were aware of the responsible gambling policy. However, when asked if the information would assist problem gamblers, the results were equivocal. Very few felt that the information had altered their own behaviour. Similar questions were included in a survey of 418 EGM players conducted by Rodda and Cowie

(2005). Sixty percent were aware of signage and 80% felt that it would assist problem gamblers, but there were no questions relating to whether this information had influenced their own behaviour. Moreover, the difficulty with both studies is that some positive responses relating to the provision of information may have related to information on help services, rather than to the value of information in influencing the behaviour of problem gamblers.

Another recent study by Monaghan and Blaszczynski (2007) examined the effectiveness of different strategies for displaying information on gaming machines. In this project, 92 undergraduate psychology students (50% of whom had played EGMs before) were asked to play a realistic gaming machine for 10 minutes. In one experimental condition, information concerning the odds of winning was displayed in one location on the screen in a static format. In a second condition, the information scrolled across the screen every three minutes for a duration of 15 minutes. After the session had been completed, participants were asked to complete a series of recall tasks. The results showed that 85% of people remembered the message when it had been presented in a dynamic format, but only 24% recalled it when it had been presented only in a fixed format. Although the reasons for these differences are theoretically uncomplicated (e.g. the dynamic message was more salient, passed through the player's principal area of focus, and would have attracted more attention), the results have important policy implications. They suggest that simple fixed messages on machines are probably insufficient to convey relevant responsible gambling information to patrons. Unless this information is made more salient, it is unlikely that people will attend to the information and be able to recall it.

In summary, although informational strategies remain an important element in many primary interventions to prevent gambling-related harm and appear to be empirically-informed strategies (see previous chapter), there is a need for ongoing evaluation and refinement of these strategies. The existing research base appears to show that the provision of information relating to help services can encourage people to seek assistance, but it does not provide clear guidance as to whether providing information can prevent problem gambling. Hing's results described above provide some encouragement that people are aware of information, but it is important to recognise that this study was conducted with large Sydney clubs where people might have

personal memberships. In other jurisdictions, and particularly those such as Tasmania and South Australia where there many smaller venues, it is less clear whether people have the same loyalties and consistent exposure to the same venues. In such circumstances, it may be more difficult for patrons to gain familiarity with the venue signage if it is located in slightly different places in each venue.

5.2.3 Effectiveness of Broad Codes of Practice

Since 2000, several studies have investigated the effectiveness of responsible gambling provisions as well as industry codes of practice. The context of these evaluations differs because different jurisdictions have different regulatory environments that influence the way in which the codes are implemented and enforced. Several jurisdictions, including SA, NT and the ACT, have mandatory codes, whereas NSW, VIC, WA and TAS have voluntary codes, although with components (e.g., venue staff training) that are mandatory. Queensland has a co-regulatory system in which the Queensland Responsible Gambling Code, developed through multiple stake-holder consultations, is periodically audited and reviewed. For policy-makers, research evaluations are important in that they can ascertain the extent to which the industry is complying with the codes, what elements of the code are effective, and more broadly, whether a voluntary or mandatory system is preferable.

Some of the earlier studies of voluntary codes showed that the level of compliance by venues was generally quite low. Hing (2001), for example, surveyed 213 club managers in NSW and asked them about their support for responsible gambling strategies. The vast majority (88%) supported training for staff, but only 50% had at the time implemented such strategies at a venue level. Most strategies that were in place were confined to the provision of complaints mechanisms, the payment of large wins by cheque, or providing referral information for people who were experiencing difficulties. Relatively few (1 in 5) had prohibited ATMs in gaming areas, and only 28% had trained staff to recognise the signs of problem gambling. Hing (2004) obtained similar results in a survey of 1000 gamblers from clubs in NSW. Patrons were asked to rate how confident they were about the effectiveness of current responsible gambling provisions. Most patrons were generally pessimistic about the extent to which venues had embraced responsible gambling principles. For example,

they drew attention to the ongoing availability of ATMs in venues and expressed doubts about the effectiveness of providing information in venues.

It is important to note that, as in other States such as SA, QLD and VIC, NSW has undertaken an ongoing process of review and consultation to enhance the quality of responsible gambling regulation in the State. There is now a more comprehensive suite of responsible gambling provisions, many of which have been significantly enhanced since Hing undertook her original studies. Venue staff now usually receive appropriate and accredited responsible gambling training and there have been multiple IPART reviews of gaming machine technology and venue design. However, it still remains unclear whether the concerns raised in these studies have necessarily been addressed because a significant proportion of gambling providers may not necessarily comply with the codes of practice if these are not mandatory.

Similar evaluations of the effectiveness of codes of practice have been undertaken in Queensland (e.g. Queensland Government (Treasury), 2001, 2002). The evaluation was designed to ascertain the public and industry's awareness of the Codes, their level of commitment to providing responsible gambling services, and the nature and extent of staff training. On the whole, the results of this evaluation were quite favourable. Over 70% of gambling providers expressed a commitment to the Codes, and up to three-quarters had implemented changes to the physical environment (e.g. increased lighting or installed clocks in the gaming rooms), or altered the way in which staff interacted with patrons (e.g. stopped allowing purchases of alcohol and food on the gaming floor). Three-quarters of industry respondents were committed to staff training, although two-thirds of this had been undertaken informally through in-house sessions rather than by accredited training bodies with compliance with the national competency standard. Industry respondents also drew attention to a number of challenges associated with implementing the Codes. These included the cost and time involved, the lack of suitably trained instructors, and the difficulty of assisting venues in more remote locations. Very similar conclusions were reached by Breen, Bultjens, and Hing (2003) in a study involving venue managers and staff in three regional areas of Queensland (Longreach, Townsville, and the south east). A significant proportion of the venues had not completed formal training; many expressed concerns about the time and effort required to undertake training, and drew attention to the difficulties

associated with implementing responsible gambling measures in smaller or remote venues.

Both sets of results therefore provided policy-makers with a significant amount of useful information concerning the potential effectiveness of voluntary codes. As in NSW, a question remains as to whether all venues will comply with the Codes, and the capacity of individual venues to comply may be influenced by their location and size. For policy-makers, the findings suggest the need for discussions concerning the means by which smaller or regional venues with fewer resources and staff might be assisted to comply with the relevant codes of practice.

As discussed in the Australasian Review (Delfabbro and LeCouteur 2007), the most comprehensive review of Codes of Practice has been undertaken in 2004–2005 in South Australia by the National Institute of Labour Studies (NILS) based at Flinders University. NILS was commissioned by the Independent Gambling Authority of South Australia to evaluate the effectiveness of the mandatory Advertising and Responsible Gambling Codes of Practice introduced in 2004. These new codes of practice required gambling providers to instigate a number of changes to their operations, policies, and staffing promotional strategies. For example, under the new responsible gambling codes, venues were required to provide responsible gambling information in venues, and to ensure that their staff undertook appropriate accredited training every two years. Other provisions included the prohibition of the serving of alcohol to players while in front of an EGM and limits on the number of machines that could be played at once (only one). The Advertising Codes placed various restrictions on the timing and content of TV and radio advertising, including restrictions on promotions that were directed towards minors or disadvantaged groups, restrictions on the use of sounds of EGMs in advertising, and the avoidance of advertising that might provide a false sense of the likelihood of winning.

The NILS project involved two components: a series of interviews with problem and recreational gamblers, and structured interviews with venue owners and managers, regulators, and counselling services. In the first part of the project, a randomised telephone survey was used to identify 500 recreational gamblers and 50 problem gamblers. These people were interviewed about their gambling habits before the

Codes came into force, 3 months later, and then 9 and 15 months after the implementation. At each of these interview points, gamblers were asked to describe how frequently they were gambling and how much they were spending on different forms of gambling. The aim was to conduct longitudinal analyses to determine whether expenditure patterns changed over time. The results yielded very little evidence that recreational players had changed their behaviour over time, but found that problem gamblers appeared to have decreased the frequency of their gambling as well as their spending following the introduction of the Codes. These conclusions were based on the careful analysis of changes in expenditure between successive time points as well as multivariate analyses.

As pointed out in the AGR (Delfabbro and LeCouteur, 2007), the NILS study provides an excellent template for how similar projects might be undertaken in the future. The study includes a comparative sample of problem and recreational players, has a pre-post design, and samples gamblers from the community using appropriate randomised methods. However, there are several principal elements of the methodology that encourage some element of caution when interpreting the findings:

- (1) Sampling: NILS found it very difficult to maintain their sample over time. Only 112 of the 504 recreational gamblers, and only 6 out of 50 problem gamblers, stayed in the study until 15 months. Additional problem gamblers had been recruited at different time points and grouped together with the original sample. This means that the samples used to perform comparisons over time were not the same people, so that the study was not truly longitudinal. Those who were substituted in might have gambled less frequently or spent less than the drop-outs so that one obtained an artificial trend towards less gambling over time. From a personal communication between the author and NILS, it was ascertained that the replacement samples did not differ substantially from the original sample, but this information was not presented in the report to allow independent confirmation.
- (2) Problem gambling measure: The study used only a partial version of the Victorian Gambling Screen (VGS) as its measure of problem gambling. It is

not clear whether the problem gambling sample were genuine problem gamblers or only 'at risk' according to the VGS classification system.

- (3) Dependent measures: It would have been useful to ask why people had decreased their expenditure or frequency of gambling, or whether they had been aware of any changes in gaming venues since the introduction of the Codes.

Although NILS concluded that the evaluation found clear evidence that the introduction of the Codes had given rise to changes in gambling behaviour, the conclusion of the AGR (Delfabbro Delfabbro and LeCouteur, 2007) is more cautious because of the methodological issues raised above. It was suggested that these results should be treated as promising or preliminary until such time that an opportunity arises to evaluate the Codes (or modifications to the Codes) using a study with a larger tracking sample of problem gamblers.

The second part of the study involved interviews with industry groups and other respondents. This component found that most industry groups had made significant steps towards implementing and complying with the Codes (e.g. staff training). Most industry respondents expressed few reservations about the provision of information in venues, but appeared less enthusiastic about many of the other provisions. Counselling agencies were generally sceptical about the value of the Codes, and some industry groups (e.g. lottery providers) were unclear as to how the Codes applied to them because their products were seldom implicated in discussions of problem gambling.

In summary, the NILS study provides a number of useful insights that have implications for similar interventions and policies around Australia. Although the mandatory regulatory system prevailing in South Australia differs from many other jurisdictions, the promising nature of the findings has implications for policy discussions relating to the relative advantages of voluntary vs. mandatory regulatory systems. It also supports the view that accredited staff training can be systematically provided to a large number of venue staff, and that multi-faceted codes can be implemented and enforced in a wide range of gaming venues.

5.2.4 Limits on Advertising and Venue Promotions

It has also been suggested that placing limits on advertising and venue promotions may also be an effective strategy to reduce problem gambling. Three principal reasons are often advanced to explain why advertising and venue promotions could be problematic. First, advertising can encourage people to visit venues, and therefore increase the frequency with which people gamble. Second, it can act as a trigger to encourage people to gambling. Third, it may encourage people to stay longer at venues (e.g. to win prizes).

At the present time, very little specific research has been undertaken to ascertain the effects of advertising on problem gamblers. The effects of advertising have instead been investigated indirectly as a part of broader studies relating to the factors that influence gambling in general, or which might limit problematic behaviour.

Australian Institute for Primary Care (2006) and New Focus (2005), for example, asked regular EGM players in Victoria to describe their views of venue inducements and how these influenced their behaviour. Although some felt that inducements and promotions were sometimes unhelpful when they were trying to reduce their gambling, they did not consider that these were primary reasons why they visited gambling venues. Similar findings were obtained by Delfabbro and Panozzo (2004) in an analysis of focus group data collected from a sample of problem gamblers. Most problem gamblers expressed few concerns about venue promotions because they were already very familiar with the location of venues, and said that they would gamble irrespective of whether inducements or promotions were available.

In conclusion, despite the fact that appropriate advertising and marketing is recognised as an important component of responsible gambling provisions all over Australia, relatively few studies have been undertaken in any Australian jurisdiction to determine how important these elements are in encouraging people to gamble, or whether they increase the likelihood of gambling-related harm.

5.3 Secondary Intervention Strategies

5.3.1 Restricting Access to Money at Venues

As pointed out in the AGR, there has been considerable national discussion regarding the extent to which the accessibility of cash facilities such as ATMs influences gambling expenditure and whether placing limits on or removing these facilities might be a useful harm minimisation strategy. The current Australian gambling literature provides some useful guidance in this area because several recent prevalence studies have included specific questions relating to the use of cash facilities. Responses to these questions can be easily analysed in relation to the status of gamblers, so as to determine whether ATMs and EFTPOS are used to a greater extent by problem gamblers. Studies conducted in a number of different Australian jurisdictions indicate that this is indeed the case. For example, the Productivity Commission (1999) found that almost 60% of problem gamblers often or always used ATMs at venues, compared with only 4% of non-problem gamblers. McMillen et al. (2001), in the ACT, found that 74% of gamblers scoring 10+ on the SOGS and 47% scoring 5–9 often or always used ATMs at EGM venues, compared with only 4% of recreational players.

Other studies have asked members of the public or gambling patrons whether placing limits on ATM withdrawals or removing ATMs could assist problem gamblers (e.g. Hing, 2004 in New South Wales; McMillen et al, 2003 in Victoria; McMillen, Marshall, & Murphy, 2004 in the Australian Capital Territory; New Focus, 2005; Rodda & Cowie, 2005 in Victoria). McMillen et al's (2001) prevalence study in Victoria found that 86% of gamblers supported the imposition of a \$200 limit on withdrawals per day, and focus groups conducted in the Australian Capital Territory by McMillen et al. (2004) with problem gamblers and their families felt that ATMs played a significant role in the development of gambling problems. Rodda and Cowie (2005) found that 77% of regular EGM players believed that the removal of ATMs would be highly effective in limiting problem gambling. Although McMillen et al. (2004) subsequently concluded that insufficient evidence was available to support the potential benefits of limiting access to ATMs, this conclusion was largely based on the fact that only a relatively small sample of problem gamblers had been interviewed.

The results otherwise appeared to suggest that further regulatory policies relating to ATMs were worth considering.

In summary, these studies provide a very promising basis for further national and inter-jurisdictional research into the effects of the availability of cash facilities in venues on problem gambling. Questions relating to the use of ATMs could be included in all future community prevalence studies, and attempts should always be made to conduct comparative analyses to determine whether such facilities have a differentially large impact on problem gamblers. The current research literature shows that not all prevalence surveys undertaken in the different jurisdictions during the past 5–6 years have made full use of the opportunity to explore the issue of cash facilities in venues. Some studies (Queensland Government (Treasury, 2001; Roy Morgan, 2001, 2005 in Tasmania; SA Department of Human Services, 2001) did not include questions relating to ATMs, whereas others did not provide problem gambler vs. non-problem gambler comparisons of the use of ATMs (McMillen et al., 2003 in Victoria). Inclusion of consistent questions in all future surveys would assist in the development of nationally comparative data relevant to this topic.

In addition to these broader surveys, it would be useful to conduct detailed surveys of ATMs by patrons at venues. McMillen et al's (2004) study is useful in that it provides very detailed data concerning the patterns of usage in the general community and how the removal of ATMs might inconvenience other patrons. However, a limitation of this ACT study was that only a relatively small sample of problem gamblers was interviewed. Such research could therefore be usefully extended in other jurisdictions by purposively sampling regular EGM players so as to capture a larger representation of problem gamblers. These studies should, wherever possible, attempt to supplement self-report data with some measures of actual behaviour (e.g. how often problem gamblers use ATMs and the extent to which this influences their ability to control their expenditure over time).

Finally, it is also important to be mindful of variations in existing regulatory provisions. In some jurisdictions, provisions concerning the use of ATMs in venues are already in place. For example, Victorian and South Australian legislation places a \$200 limit per transaction, and Tasmania does not allow ATMs in non-casino gaming

venues. Similar inter-jurisdictional variations also apply to EFTPOS facilities, although EFTPOS has not been subjected to the same degree of debate because it is considered a more essential service in venues and is, therefore, more difficult to limit or remove.

5.3.2 Lighting and Clocks in Venues

The fact that some problem gamblers appear to lose track of reality and time when they enter gaming areas has led to the suggestion that greater ‘reality checks’ need to be placed in venues. Some of the common suggestions include adding clocks to venues, natural lighting, or easy access to exit points. These suggestions have been discussed by the Productivity Commission (1999), the IPART review in New South Wales (2003), and in many submissions to inquiries concerning the introduction of harm minimisation features to gaming venues. All of these proposals appear very logical and are usually endorsed by patrons. Studies in Victoria by Cowie and Rodda (2005) and New Focus (2005), as well as in New South Wales (Hing, 2004) have found that patrons supported the introduction of clocks and similar features, and rated them potentially useful strategies to assist problem gamblers. However, apart from these self-report studies, no objective behavioural data is available to support the effectiveness of these features.

An important reason for this is that it is very difficult to ascertain the specific effect of these measures using established research methodologies. Apart from the fact that introducing natural lighting to gaming areas would be impractical or prohibitively expensive for many venues, it would be very difficult to investigate the effects unless one could compare the behaviour of a captive population of gamblers who only used that venue. One would be heavily reliant on self-report data, and this might only reflect the perception that people consider this ‘to be a good idea’ rather than one that worked in practice. Similarly, any attempt to measure the effect of clocks would be challenged by the fact that this type of measure is often introduced along with a suite of other measures, so that it would be very difficult to discern the specific influence of the clock. It is not clear that patrons would necessarily look at clocks if they were otherwise preoccupied with gambling, and many may not judge the duration of the session based on the time elapsed, but on the achievement of specific goals (e.g. obtaining a certain sized win, or a bonus sequence).

5.3.3 *Machine Shutdowns*

The AGR provides a review of a number of investigations into the potential effectiveness of machine shutdowns on gambling behaviour, expenditure, and problem gambling. As indicated in the Review, a machine shut-down is a period of predetermined machine inactivity in which players are unable to gamble (e.g. for 4 hours at a certain time of the day). The Review examines evidence from several studies and reports, including the Productivity Commission (1999), SACES (2005a), as well as survey or interview studies conducted by McMillen and Pitt (2005) in the Australian Capital Territory, Livingstone (2004), Cowie and Rodda (2005) and New Focus (2005) in Victoria, and AC Nielson in New South Wales. All of the survey studies interviewed regular and recreational gamblers to determine their views concerning the effectiveness of shutdowns. On the whole, most gamblers or relatives of gamblers who were asked supported the introduction of machine shutdowns.

When other studies have looked more closely at the revenue effects of shutdowns for particular venues, the results have tended to vary. SACES (2005) examined several areas of Victoria that had been subject to regional caps on machine numbers and found some evidence that revenue growth had been slower for venues where shutdowns had been imposed. McMillen and Pitt (2005) found that only a minority of venues in the ACT had experienced small to modest decreases in revenue (3–10%), while AC Nielson (2003) in NSW and SACES (2005) both found that any short-term declines in income caused by the introduction of shutdowns were usually short lived because the industry developed ways to counteract the effect (e.g. changing the mix of machines towards more profitable models).

From a policy and regulatory perspective, the evidence available in relation to machine shutdowns is more extensive than for other previously identified harm minimisation procedures. Both self-report and revenue data has been used to examine the perceived and actual effects of this measure. However, neither source of evidence provides any convincing conclusions concerning the effects of shutdowns on the behaviour of problem gamblers. For stronger evaluations to be conducted, it would be necessary to assess the status of a group of gamblers before and after the widespread introduction of these features. Naturally, such research would be more difficult to conduct if only some venues introduced shutdowns, if evaluations were attempted

only after the change had been implemented, or if shutdowns were introduced as part of a suite of responsible gambling measures.

5.3.4 Other EGM Features

A number of important EGM features have been discussed previously in Chapter 4 (namely, the effects of modifying bill acceptors, maximum bet amounts, and play speed). However, the AGR also touches on a number of other features that are commonly identified in discussions of modifications to EGM operations. Although discussed in the AGR, these features are often overlooked because of the very limited and speculative range of evidence currently available. Measures or features that fall into this category include: the effects of modifying lights and sounds on machines, changing credit totals to dollar amounts on machines, and bonus or linked jackpots.

(a) Lights and Sounds

Cowie and Rodda (2005) and New Focus (2005) found that these features were considered important in the selection of machines (i.e. what made machines popular), but modifying sounds and lights was not considered a very effective way to influence problem gambling. Delfabbro et al. (2003), using a simulated slot-machine in the laboratory, found that soundless machines were significantly less popular than other machines because people like to hear the sounds of winning to know what is happening when they play.

(b) Changing Credit Totals

Delfabbro et al. (2003) investigated this feature in a laboratory simulation involving regular EGM players and found that it did not influence machine preferences. No studies have specifically examined this topic in venues.

(c) Jackpot and Bonus Features

Previous studies by Walker (2004) described in Chapter 4 show that free spin and bonus features are extremely important in maintaining EGM playing. However, little similar information is available concerning the effects of jackpot features.

Observational studies of the nature conducted by Walker might usefully be extended to the study of jackpots (progressive and linked) to determine whether players show obvious signs of persisting on machines where these features are available.

Alternatively, it may be useful to conduct expenditure comparisons of machines with and without links to progressive jackpots. In conducting such research from an inter-jurisdictional perspective, it is important to be mindful that not all jurisdictions have these features. South Australian clubs and hotels, for example, do not have linked jackpots and Western Australian clubs and hotels do not have EGMs at all. This means that such comparisons can only be conducted nationally within casinos (EGMs in most casinos have these features), or in clubs and hotels within specific jurisdictions.

5.3.5 Smart Card Technology

The term ‘smart card technology’ refers to electronic cards which can be used in conjunction with EGMs to allow players or venues to monitor, limit, or track expenditure on EGMs. Although many potential models have been proposed around Australia and by different technology providers, the fundamental principles or processes are approximately the same. Players would be required to present identification to obtain a personal electronic card that could be charged with cash or credits so as to provide access to EGMs. Each time the person used the card, credit would be added or subtracted, and the same card would be used for all machines so that a centralised database would monitor and track expenditure. Theoretically, it would be possible for players to specify an expenditure limit in advance, or for the system to limit certain players’ access to machines if they had exceeded a certain ‘level of play’ (expenditure, frequency of play). As a result of these possibilities, smart card technology has been the subject of considerable public debate, a topic for regulatory inquiries, a favoured harm minimisation strategy of non-government organisations involved in gambling treatment, and several significant research projects.

The AGR provides a summary of the body of evidence that is currently available concerning the potential value of smart cards. It begins with a discussion of the Productivity Commission’s review, and then summarises the findings from several recent surveys and inquiries into the feasibility of this technology, and its potential utility as a harm minimisation strategy. Included in the review is a discussion of Nisbet’s (2003, 2004) detailed survey study of players and industry representatives in New South Wales, Livingstone’s (2004) comprehensive national review of EGM

technology, the Independent Gambling Authority of South Australia (IGA) review of smart card technology conducted in 2005, and a national telephone survey of EGM players conducted by McDonnell-Phillips (2005).

In terms of its coverage of the principal issues and the views of the main stakeholders potentially affected by this issue, the current research literature is sufficiently comprehensive to inform ongoing national debates. The IGA review, for example, outlines the different levels or forms that this technology can take, ranging from an entirely voluntary system to mandatory systems where machines could only be operated by electronic cards. It points out that gamblers could gamble with or without identification by venues, and employ self-imposed limits on the amount of time spent on machine or expenditure, and that machines could offer multiple forms of access, or only card access.

All of the studies have obtained only limited, or at best mixed, industry endorsement of this technology. Although some industry representatives in Nisbet's 2003 study in New South Wales were receptive to the possibility that privacy issues could be overcome and that the cards could ultimately save some labour costs in venues, other industry respondents, and most gambling providers who responded to the IGA review, were more sceptical. Many felt that the cost of implementation was prohibitive, that the system would only work if it were mandatory, and that it would have adverse effects on recreational or casual players (especially if ID were required to obtain a card). Similar feedback has been received from gamblers. In Nisbet's (2004) interviews with gamblers in NSW, it was found that voluntary card schemes were not endorsed by problem gamblers because they did not feel that players would use the cards unless it were mandatory.

The McDonnell-Phillips (2005) study included similar questions, but extended Nisbet's analysis by looking more comprehensively at the perceived viability of different card schemes, as well as how regular EGM gamblers felt that they would react to them. On the whole, the results provided clear guidance as to the most preferred system to adopt. Gamblers reported that cards which allowed players to set their own expenditure limits were preferred over those which imposed limits on the frequency of play. These limits should also apply to shorter periods, i.e. be on a

weekly or daily basis rather than less frequently. Most players (61%) supported a voluntary scheme and only 26% preferred a compulsory one. Around half of the EGM players did not believe that either scheme would make any difference to their gambling, but a third reported that gambling would be less enjoyable under a mandatory scheme. Around half of the sample said that they would use the cards, but a quarter said that they would not. When these results were broken down by gambler status, the results came out even more strongly in support of voluntary schemes: only 17% of problem gamblers preferred a compulsory scheme and 67% preferred a voluntary one. Only 38% of problem gamblers would use cards if they were available and a quarter would not.

In summary, although the existing research literature relating to smart cards provides some useful guidance as to the appropriate form of the technology, the results provide a number of challenges to regulators and policy makers. Most respondents appear to agree that only mandatory systems would be effect in reducing gambling-related harm, but such systems are not likely to be popular with many gamblers. As Livingstone (2004) points out, however, a limitation with much of this research is that few, if any, respondents in some of these surveys have had a great deal of experience using smart cards to gamble. Thus, the results are largely hypothetical and speculative and not based on analyses of actual behaviour. Moreover, all of these studies are based only on self-report evaluations rather than actual trials of the technology, so that the current research base does not provide any guidance as to the effectiveness of this technology, but merely reports what people might prefer and how they might react to cards being introduced.

5.3.6 Exclusion Strategies

In every jurisdiction in Australia, there are provisions in place that allow: (a) gamblers to exclude themselves from specific venues or groups of venues for a period of time, or (b) venues to exclude certain gamblers. Although the exact mechanisms vary slightly from one jurisdiction to the next, the procedures are usually very similar. Gamblers fill out documentation, provide a photograph of themselves, and these details are sent to the relevant venue. Debates about the efficacy of these procedures have been conducted for many years and are discussed in the Productivity

Commission (1999) report, but very little research has specifically been conducted to ascertain the effectiveness of these measures.

Apart from a review conducted for the Australian Gaming Council (Blaszczynski, Ladouceur, & Nower, 2004), the only detailed research project into the nature of exclusion studies was undertaken by SACES in 2003 (O'Neil et al., 2003). The SACES project involved secondary analysis of data collected by the industry (AHA Victoria and Crown Casino, Melbourne), a survey study of venue managers, and consultations with various stakeholders including industry, treatment service providers, and State Government regulators. The secondary data analysis of the AHA Victoria data – namely, the results of 4083 interviews with patrons about exclusion – showed that 2248 (56%) people had been excluded. Around 30% of those excluded had sought additional deeds of exclusion. The Crown Casino data revealed that 933 had been excluded between 1996 and 2002 and that 15% had breached their deeds, with a mean of 3.2 per person. Around one fifth had breached their deeds on more than one occasion. The interviews with industry showed that most were sceptical about the value of exclusion because of the difficulty of enforcing the strategy. Apart from the difficulties in trying to identify people from photos, people were able to disguise their appearance, avoid being seen, and often changed their appearance over time. Staff did not usually have the time to update their knowledge of excluded patrons on a regular basis, especially when these ran into hundreds. It was concluded that greater resources, including improved information technology resources, would need to be made available to enhance the quality of these exclusion programs.

Despite being conducted only in Victoria, it is likely that these findings can be generalised to many other jurisdictions because the same challenges are likely to be faced all over the country. However, some contextual factors might influence the generalisability of these findings. For example, it might be easier from an observational perspective to detect breaches in South Australian and Tasmanian venues because the EGM venues are generally smaller than in other States or Territories. Conversely, in some of the larger clubs in New South Wales and the Australian Capital Territory, the requirement to provide membership cards on entry into clubs might provide an additional opportunity to detect excluded gamblers.

The SACES findings show that many people who self-exclude admit to having breached their deeds, but the project relies on secondary self-report data from industry rather than primary interviews with gamblers themselves. As a result, it is unclear how many gamblers breached their deeds, and then did not admit to having done so when they completed the survey. There is a need to determine how many problem gamblers actually breach their deeds, as opposed to how many were caught, or admitted to doing so.

Despite some limitations in the data available, the findings from these studies have some value for policies relating to the availability of exclusion provisions in Australia. In particular, they emphasise a need to consider the technology available to assist venues that are implementing these policies, the availability of appropriately trained staff, and the scrutiny applied to people who enter the gaming floor with an apparent intention to gamble. For example, the value of exclusion policies may need to be discussed in conjunction with policies relating to discussion of smart-card technology in relation to the use of gaming machines.

5.3.7 Smoking Bans

As indicated in Chapter 3, a significant proportion of gamblers are regular smokers and have a history of smoking while they are gambling on EGMs. As a result, it has been suggested that a significant number of regular patrons would have to leave venues whenever they wanted to smoke if venue smoking bans were enforced. The AGR provides a brief summary of the effects of the introduction of the first smoking ban of this nature; namely, in Victoria (NB. the Queensland ban had not occurred when the review was last updated). The review discusses the analyses conducted by Marshall (2003) as well as the recent review conducted by SACES (2005b) on the effects of regional EGM caps on several Melbourne communities. Both studies show that EGM revenue dropped significantly following the introduction of smoking bans (around 9%), although the magnitude of the effect varied from one venue to another. Similarly, SACES found, using time-based regression analyses, that EGM revenue in Victoria decreased during the year that smoking bans were introduced. However, the results also showed that expenditure on EGMs has gradually recovered after the initial fall.

Given the very consistent link found between smoking and EGM gambling in a number of studies in different jurisdictions, it is likely that the findings above could be generalised to other jurisdictions where smoking bans are proposed (or in progress). In evaluating the effects of bans, however, it will be important to take into account the importance of determining how much of the decline in revenue due to the ban is attributable to problem gamblers as opposed to other players. Although the Productivity Commission (1999) estimated that around 42% of EGM expenditure is due to problem gamblers, an even greater proportion of the decline in EGM revenue observed after a smoking ban may be attributable to problem gamblers if smoking rates are disproportionately higher in this group. For this reason, an assessment of the smoking rates of problem gamblers and the number and length of breaks taken by gamblers due to smoking prior to future smoking bans may enhance the policy utility of research findings. Such data would have the potential to anticipate the likely industry impacts as well as the differential impact on problem gamblers.

5.4 Tertiary Interventions

5.4.1 Help-Seeking in Problem Gamblers

A well recognised fact concerning problem gamblers is that relatively few seek formal assistance because of their problems. However, determining exactly how large the disparity is between actual numbers and the number seeking help is not a straightforward issue. Although it would appear logical to compare the estimates derived from prevalence surveys with the numbers in treatment agencies, such comparisons are thwarted by several complicating factors. First, it is often only Government funded agencies that maintain and provide aggregate data concerning help-seeking. Other people who seek out support from psychologists in private practice, who seek private counselling, visit Gamblers Anonymous, or speak to their GP, will not be included in official help-seeking statistics. Second, some agency records can be unreliable. Not all people who seek help will necessarily be recorded.

Most prevalence studies suggest that the percentage of problem gamblers seeking help is much higher than estimates based on comparisons of prevalence and data derived from funded services. For example, the Productivity Commission's national survey suggested that around 20% of problem gamblers identified in their survey with SOGS

scores of 10+ had sought help, while McMillen et al.'s (2001) survey of the ACT obtained a figure of around 29% for the same group. Actual statistics derived from agencies (see Productivity Commission, 1999) would, however, suggest that the figure is as low as 5%.

Other more recent studies have examined the reasons why people seek help for gambling problems and what factors act as barriers to help-seeking. Evans and Delfabbro (2002) in South Australia examined this issue in 70 gamblers who had sought help for gambling problems, and Rockloff and Schofield (2004) conducted a telephone survey involving 1100 Queensland adults. More recently, McMillen et al. (2004) conducted qualitative interviews with 9 problem gamblers and their family members, and New Focus (2005) completed interviews with 119 problem gamblers. Despite having different sampling methodologies, all of these studies expressed very similar views about help-seeking in problem gamblers. This conclusion was that most gamblers only seek help when they reach 'rock bottom' or where they have no choice but to seek help due to an impending bankruptcy, marriage breakdown, loss of employment, or appearance in court. The principal factors preventing them from seeking help earlier are: denial, embarrassment and shame, a belief in the ability to gamble their way out of trouble, and uncertainty about the availability and effectiveness of treatments.

All three of these studies have limitations that are worth noting. The Delfabbro and Evans study was based on a convenience sample of problem gamblers, so it is not clear whether the findings can be generalised to other gamblers who have sought help because of their difficulties. In contrast, the Rockloff and Schofield study used a random sampling methodology for recruiting participants, but included only a very small sample of problem gamblers. The McMillen et al. (2004) study had both limitations, although it was designed specifically to capture more detailed qualitative information that was not so easily obtained in the other two studies.

In summary, existing research into help-seeking provides both consistent and inconsistent guidance to policy-makers. On the one hand, it is clear that the reasons why people seek help and the barriers to seeking help are likely to be very consistent across jurisdictions. However, it may be more difficult to obtain clear estimates of the

number of people who do not seek formal help. The research suggests that policy-makers in each jurisdiction should be guided by a combination of figures drawn from treatment services and community prevalence surveys.

5.4.2 Pre-commitment and Self-Help Strategies

One additional and important reason why official prevalence figures may often be considerably higher than official treatment service populations is that many problem gamblers manage to resolve their problems without formal intervention. There are some who appear to 'grow out of the problem' or stop gambling without any significant intervention (i.e. who are thought to undergo a process of 'natural recovery'). Another group of people are thought to use 'self-help' strategies to overcome problem gambling with little support from others (Jackson, Thomas, & Thomason, 2002). Not surprisingly, both of these groups are of considerable interest to researchers and policy-makers because they suggest that it might be possible to assist problem gamblers using only very limited resources, or by developing effective early intervention strategies that might be promoted to the community. This group may also have personal strategies or techniques that could be applied to gamblers already in formal treatment programs.

The AGR draws attention to several published self-help guides available in Australia (Allcock & Dickerson, 1990; Coman, Singer, Burrow, & Singer, 1996), and provides a summary of the key elements. As indicated, these include such elements as: keeping a record or diary of expenditure, setting goals for change, setting budgets, substituting in other leisure activities, and anticipating and dealing with relapses. Unfortunately, no information is currently available as to how effective these self-help methods are as compared with formal services.

The only study that has examined self-help empirically was a small study undertaken by the National Council for Education and Training on Addiction (NCETA) in Adelaide in 1996. This study included key informant interviews with researchers, counsellors, and other experts in the field and a convenience sample of 30 problem gamblers. The study identified a number of useful strategies used by problem gamblers, such as avoiding friends who gambled, taking someone with them when they went shopping, paying bills or going to the bank, or getting others to handle

money on their behalf. Many other strategies were similar to those recommended in the self-help manuals described above.

Although the sample was not randomly selected, there is no reason why these findings could not be generalised to gamblers anywhere in Australia. However, before one could make consistent recommendations, one would want to know whether these methods would be effective over an extended period of time. Moreover, it would be important to know, given the nature of the sampling, whether there were additional motivational or situational characteristics (e.g. presence of a supportive partner or friend) that may have enhanced the effectiveness of the strategies that were employed. Not all problem gamblers necessarily have the motivation to bring about change, and not all would necessarily have the social supports required to sustain their commitment to changing their behaviour.

In addition to self-help strategies, there has also been interest in other broader strategies that gamblers in general might use to limit the potential for gambling-related harm. One such example is the use of pre-commitment strategies to limit the potential of losing control of one's expenditure. The role of pre-commitment was investigated in some depth by McDonnell-Phillips (2005) in a telephone survey of 482 monthly EGM or racing gamblers. Most gamblers were found to use pre-commitment strategies. For example, most gamblers (70%) reported setting personal limits on expenditure prior to their visits to venues. When asked what factors typically triggered over-expenditure, most EGM players referred to the availability of ATMs, the potential for large jackpots, or feeling lonely or bored. TAB gamblers referred to similar factors, but felt that positive mood states prior to gambling also made a difference. All of these factors were found to be more influential for problem gamblers than for other groups of gamblers.

A third component of the study asked gamblers what strategies they used to control their gambling. Most reported relying on willpower (66%), avoiding large bets (47%), taking along only what they needed to spend (38%), avoiding ATMs (34%), and engaging in other activities (25%). Again, a very similar pattern of results was obtained for TAB gamblers.

A strength of the McDonnell-Phillips study was that the results were based on a random sample of gamblers from the community. The sample was also large enough to allow comparisons between gamblers with varying degrees of risk, and the sample was obtained nationally. Accordingly, there is good reason to believe that these findings reflect the typical strategies used by gamblers to limit expenditure, and the factors that act to make this process more difficult.

5.5 Evaluations of Treatment Services and Interventions

The AGR provides a summary of the different intervention services currently available to assist problem gamblers. A comprehensive and quantitative summary of the range of services typically available is also available in the Productivity Commission's (1999) report and the summary of gambling statistics produced annually by the Australian Gaming Council (2006). The most striking conclusion to be drawn from the AGR's review of the current Australian literature is that very few empirical studies have been conducted in Australia to evaluate the nature and effectiveness of current treatment services. Although it is relatively easy to obtain statistics concerning the range of services available, annual data concerning the clients who seek help (e.g. Jackson et al., 1997 in Victoria; SA Department for Community Services, 2006), or descriptions of emerging service models (e.g. from the annual conference proceedings of the National Association for Gambling Studies), empirical research involving the tracking of outcomes in relation to particular service modalities is very sparse.

The AGR commences with an overview of counselling services. It is pointed out that most treatment centres or networks (e.g. Break Even) around Australia tend to offer a similar range of counselling services, including financial and relationship counselling, family therapy, legal assistance, and various treatments or interventions for problematic gambling behaviour. Interventions can be one-on-one, group focussed, single or multi-disciplinary, and eclectic or specialised. Most involve initial assessments with standardised protocols and then a period of follow-ups conducted over several weeks. Clients may be asked to attend group sessions, complete diaries or checklists, or undergo counselling, and are provided with various forms of information including details of the odds of gambling, and how to set budgets and

manage money, manage and pay off their debts, and restructure their lives so as to reduce their opportunities to gamble.

As pointed out in the AGR, there is some limited government data available concerning the number of clients who successfully completed counselling services. In a number of jurisdictions, e.g. South Australia, Victoria, Queensland, and New South Wales, Government funded services maintain standard minimum data-collection procedures. This paperwork is usually completed when new clients enter the service and again when they leave. However, even when this data is available, evaluations of services are still difficult because outcome data is usually not available for those who do not complete all requested services, or fail to return to treatment. Many counselling interventions are also so broad and eclectic that it is usually not possible to determine what component of the service has been effective in bringing about any form of change. For example, if a person undergoes a range of interventions (financial counselling, information sessions, and specific therapies) and then reports having significantly reduced their gambling, one can only conclude that the whole package of services was useful. The findings cannot be necessarily generalised to the next client, or across different jurisdictions. A further problem is that most assessments of the efficacy of services are very short term (e.g. only 1–3 months after the intervention was provided, or when the person left the service). It is not clear whether the person's improvement (if this were the outcome) has been sustained over time.

Many of these issues were discussed in a recent paper by Jackson, Holt, Thomas and Crisp (2003), who argue that one might address the problem of consistency in interventions by developing a standardised methodology for the categorisation and profiling of tasks or services undertaken by different agencies (The Counsellor Task Analysis Scale or CTA). This method involves documenting the different tasks that counsellors perform, and allows some determination of the relationship between the frequency with which each task is performed and the counsellor's beliefs about the importance of the tasks performed. So far this scale has been validated using a sample of 49 problem gambling counsellors from 18 different agencies in Melbourne, and in terms of nine different tasks, including: conducting assessments; the development of treatment goals; general counselling interventions; interventions for problem

gambling; family interventions; interventions for related problems; referral processes; education about problem gambling; and conducting research and policy work.

Apart from standardising the recording of the intervention itself, there is also a need to ensure greater consistency in the initial assessments. Neal et al. (2005) as well as the Productivity Commission (1999) provide a detailed summary of the different measures of problem gambling that are currently being used by agencies around the country. As indicated, this varies considerably from the SOGS, VGS, and DSM-IV and CPGI to more obscure measures such as the G-Map (Loughnan, Pierce, & Sagris, 1996) and Gambling Severity Index (Neal et al., 2005). Since it is known that these scales differ in their definitions of problem gambling, and have different cut-off scores subject to varying interpretations (see Chapter 2), it is difficult (with the exception of the Productivity Commission's survey of client services) to compare data obtained from different jurisdictions.

Similar problems arise when one tries to compare drop-out rates and follow-up periods. Some agencies record this information, whereas others do not. Many agencies do not include standardised instruments to ascertain the degree of behavioural change brought about by the intervention. For this reason, there is a need to encourage consistency in the methods used to collect outcome information.

5.6 Evaluations of Specific Therapeutic Interventions

A number of major reports have been specifically devoted to describing the different forms of therapeutic intervention currently available to treat problem gamblers, and the international literature available to support their efficacy. Some example of these reports include: O'Connor, Ashenden, Raven and Allsop's (1999) summary of interventions prepared for the Department of Human Services Victoria; Yaxley's (1996) report for Anglicare Tasmania; the position paper prepared by Blaszczynski, Walker, Sagris and Dickerson (1997) for the Australian Psychological Society; Ryder, Jeffcote, Walker and Fowler's (1999) report from Edith Cowan University (WA); Walker's (1992a) text, *The Psychology of Gambling*; Jackson, Thomas, and Blaszczynski's (2003) review in Victoria, and Blaszczynski's (1998) book on cognitive-behavioural techniques.

Few of the methods described in these reports have been subjected to detailed empirical evaluation within Australia during the past decade, although there is literature extending back into the 1980s that has evaluated some of these techniques, particularly in NSW (see Blaszczynski, 1998 for a review of these studies). Some of the principal methods used are described in the AGR. These include cue exposure techniques/behavioural therapy, cognitive-behavioural, cognitive therapy and motivational counselling.

Cue exposure is based on the notion that problem gambling is largely a behavioural addiction. People develop conditioned responses to gambling-related stimuli (the process of gambling, venues, winning, sounds and colours on machines). These associations develop because gambling serves to assuage depression or anxiety. The consequence of these processes is that gamblers come to develop very strong urges to gamble, or strong feelings of anxiety, when they are not gambling or are exposed to gambling-related stimuli. The aim of treatment, therefore, is to decondition these responses by teaching the person how to substitute other stimuli (e.g. feelings of being in control or relaxation) in place of the negative symptoms. This is usually achieved by teaching the person relaxation techniques either in the clinical setting or by giving them tapes that they can listen to at home. Over time, these feelings of being in control and relaxation are paired with gambling-related stimuli either mentally (imaginal desensitisation), or through actual or *in vivo* exposure. Some interventions will favour imaginal sensitisation (e.g. Blaszczynski, MacCallum, & Joukhador, 2000), whereas others, such as the program at Flinders Medical Centre in Adelaide, use systematic *in vivo* exposure.

Such techniques are well supported by international evidence, but so far only a few studies have been published in Australia. The most comprehensive coverage of this literature is contained in Blaszczynski (1998), while an example of a paper that presents research based on these techniques is the above-mentioned article by Blaszczynski et al. (2000). This study compared the effectiveness of both imaginal desensitisation techniques and cognitive therapy (described below). The results showed that imaginal desensitisation based on only two clinical sessions and a take-home audiotape with practical exercises was sufficient to create abstinence in 40% of gamblers. These results were commensurate with those obtained using a combination

of imaginal desensitisation and cognitive therapy, and cognitive therapy alone. The principal limitation of this study, however, was that the sample size was very small (only 11–12 participants in each group), and the outcomes were based on the gamblers' status after only one month. It is unclear, therefore, whether the changes observed were sustained over a longer period. Usually, in clinical studies, it is appropriate to consider changes to be clinically significant only after at least 6–12 months because of the significant likelihood of relapses.

Apart from confidential outcome data provided to its funding body, the Flinders Medical Centre program has also published some outcome data to demonstrate the effectiveness of their program. Battersby and Tolchard (1996) described the results obtained from 135 cases and reported that 63% had completed the treatment successfully, but that 23% had dropped out at the assessment point, and 13% had dropped out during treatment. Clients reported having experienced a significant reduction in their gambling-related symptoms over a 6-month period.

The few other published evaluation studies available from Australia have been undertaken using cognitive-behavioural or cognitive therapy (e.g. Blaszczynski et al., 2000; Dowling, Smith, & Thomas, 2006). Cognitive therapy is based on the assumption that gambling is strongly influenced by people's decision-making, knowledge, attitudes, and processing of information. In pure cognitive therapy, the aim of the therapy is to address or 'restructure' various irrational or erroneous beliefs and attitudes towards gambling. By contrast, cognitive-behavioural therapy examines both cognitive processes and behaviour. As Walker (2005) has recently pointed out, cognitive-behavioural therapy can take one of two forms. In one form, which he terms the *cognitive-behavioural synthesis* approach, it is assumed that a change in cognition will lead to a change in behaviour. The process is based on cognitive therapy and its assumptions, but outcomes are measured in terms of changes in cognitions as well as behavioural changes. In the second form, which he terms the *cognitive-behavioural components* approach, both cognitive and behavioural approaches are used in the therapy on the assumption that both processes maintain excessive gambling (Sharpe & Tarrier, 1993). Thus, treatments may involve some sessions with cognitive therapy, whereas others may include various other interventions including the cue-exposure techniques described above. In Australia, most treatment services adopt this latter

approach (i.e. they mix up different types of therapy as part of their programs), although the gambling treatment clinic at the University of Sydney tends to favour a more cognitive-behavioural synthesis approach.

Apart from Blaszczynski et al's (2000) study described above that combined cognitive and imaginal sensitisation, the other recently published Australian study is by Dowling, Smith and Thomas (2006), which examines the effectiveness of cognitive behavioural therapy in a sample of 19 women in Victoria. The study used a combination of behavioural and cognitive methods and showed some promising results (89% of the treatment individuals no longer met DSM-IV criteria 6 months post treatment). However, as the authors indicate, the study started with 39 people and lost 20 at various stages of the intervention, and included only women, so it may not be possible to generalise the results to many gamblers seeking treatment as only the more motivated or committed clients may have successfully completed the treatment.

For findings from clinical evaluations to be useful to policy makers and funding bodies, it will be necessary for this field of research to be greatly expanded in Australia. Apart from the fact that there are so few studies, there is also the question as to whether studies reach the very high standards required for valid clinical trials. Both Walker (2005) and Blaszczynski (2005) have recently provided critical reviews of this literature and provide a summary of many of the design and conceptual issues that would need to be taken into account in undertaking such research. Some of the most important of these are shown in Table 5.1.

Table 5.1. Requirements for Valid Evaluations of Clinical Treatments

	Best Practice	Current State of Play
<i>Sample size</i>	The sample size must be sufficient to detect significant changes.	Most studies use sample groups of < 20.
<i>Using randomisation</i>	Participants should be randomly allocated to treatments and control conditions.	Randomisation generally used.
<i>Double blind procedures</i>	Neither the participants or	Some therapies are

	therapists should know into what condition the gamblers have been placed.	administered by the researchers themselves. Difficult to achieve both type of 'blinding'.
<i>Appropriate control group</i>	A control group that is matched for gambling severity and other factors thought to influence outcomes (e.g. gender, age) should be included.	Not clear that control groups are included in all studies. Waiting list controls may not be appropriate if gamblers often improve over time anyway (i.e. through natural recovery).
<i>Appropriate measures</i>	There is a need to include standardised measures that might be sensitive to treatment changes. Both harm and behavioural measures should be included.	Generally used, but there may be an over-reliance on harm-based measures. Need to include measures of behavioural change.
<i>Appropriate statistical methods</i>	Group analyses can be deceptive in that very large changes in a minority of cases might give rise to a significant overall difference, but which is not sustained throughout the sample. Researchers should report reliable change indices and clinically-significant change measures.	Not often reported.
<i>Treatment of drop outs</i>	Drop outs should be recorded and taken into account in evaluating outcomes. The stage of drop out should be reported.	Drop-out rates are reported, but not usually included in the denominator when calculating outcome

		statistics.
<i>Documentation and standardisation of methods</i>	The process should be consistent, be documented, and replicable.	Usually within treatment centres, but varies from one jurisdiction to the next.
<i>Absence of parallel intervention</i>	People should not receive other concurrent treatments.	Difficult to enforce, especially with waiting list controls (for ethical and practical reasons).

Both Walker (2005) and Blaszczynski (2005) pointed out that many of these ideals are difficult to achieve in practice. Clinical trials are very cost and labour intensive, so it may only be feasible to conduct small-scale evaluations. It is very difficult to disguise the nature of the intervention and difficult to make the therapist blind to the nature of the intervention. Finally, the process of natural recovery also provides a significant challenge to researchers. If many gamblers get better anyway without help, how does one know whether people in one's treatment group have got better as a result of the passage of time rather than as a result of the treatment? A similar issue applies to the waiting list control group. If this group find other ways to help themselves, or become better anyway over time, the magnitude of treatment effects (as measured by treatment – control group effects) may be quite small (Walker, 2005).

To address this problem, Walker recommends the use of parallel control groups that engage in neutral tasks, or designs that compare one therapy with groups that receive more than one so as to detect the incremental effect of the additional therapy (assuming that one can match the number of sessions). Most other issues can be addressed by adopting appropriate statistical and methodological techniques. Sample size issues may need to be addressed by using meta-analyses or other methodologies (e.g. multi-site evaluations) using standard instrumentation, sampling and methods so as to allow the consolidation of smaller samples into a larger group. Such work is currently underway in several countries, but with only limited Australian involvement. Despite this, there may be other projects concerned with related topics

that might shed some light on some of these issues. Gambling Research Australia has, for example, recently funded a project into the factors that contribute to relapse in problem gambling treatments. Undertaken by Flinders University, this work may have some potential to understand the factors that contribute to treatment drop-outs and treatment successes.