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Multi-Venue Self-Exclusion for Gambling Disorders: A Retrospective Process Investigation

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Abstract

This study describes an exploratory investigation of retrospective data related to the experiences and outcomes of individuals enrolled in a centralized multi-venue self-exclusion program for up to 24 months. The program was designed to offer convenient registration and to empower individuals to prevent their entry into multiple gambling venues or to restrict their access to non-gaming areas. A self-selected sample of 44 individuals participating in the program completed an online survey that assessed gambling history, motivations, and behaviours related to self-exclusion. Approximately two-thirds of the sample reported self-excluding in response to financial loss and hardship. Just over one-third breached the program by gambling in a nominated exclusion venue, the primary reason being a failure to cope with negative emotions. Concomitantly, fear of embarrassment, if detected, was cited as the main variable contributing to compliance. The paperless system eased enrolment procedures for a large majority of individuals, with the capacity to simultaneously exclude them from multiple venues being endorsed as the most helpful program feature. Self-reported benefits included reduced gambling for the majority of participants and a sense of greater control over urges and behaviours. Abstinent participants were less stressed than were non-abstinent participants, had fewer symptoms of depression, and reported a higher quality of life. Findings suggest that a self-exclusion program with convenient registration that prevents entry into multiple venues fosters positive outcomes for self-excluded gamblers, particularly those striving to maintain abstinence.

Keywords: problem gambling, gambling disorder, self-exclusion, harm minimization, evidence-based intervention

Résumé

Dans cette étude, on décrit une étude exploratoire de données rétrospectives liées aux expériences et aux résultats de personnes inscrites dans un programme centralisé d'auto-exclusion de multiples lieux pendant une période maximale de 24 mois. Le programme

a été conçu de telle manière qu'il soit facile de s'y inscrire et pour habiliter les personnes à éviter de multiples sites de jeux de hasard ou à se restreindre à des zones exemptes de jeu. Un échantillon de 44 participants volontaires au programme a répondu à un questionnaire en ligne pour évaluer l'historique de jeu, les motivations et les comportements liés à l'auto-exclusion. Les deux tiers des répondants ont dit avoir adopté un comportement d'auto-exclusion par suite de pertes financières et de difficultés. Un peu plus d'un tiers n'a pas respecté le programme en jouant dans un lieu exclu désigné, la principale raison étant l'incapacité à faire face à des émotions négatives. Parallèlement, la crainte du sentiment de honte (si on se faisait prendre) a été citée comme principale variable de la conformité au programme. Pour une grande majorité de personnes ayant la capacité d'exclure simultanément de multiples sites, le fait de simplifier la procédure d'inscription sans remplir de papiers a été vu comme la fonction la plus utile du programme. Parmi les bénéfices cités par les participants, on a nommé la diminution des jeux de hasard et une meilleure maîtrise des pulsions et des comportements. Les participants abstinents, comparés à ceux qui ne l'étaient pas, étaient moins stressés, présentaient moins de symptômes de dépression et ont mentionné avoir une meilleure qualité de vie. Avec ces résultats, il est permis de penser qu'un programme d'auto-exclusion dans lequel il est facile de s'inscrire limite l'accès à de multiples lieux et donne des résultats positifs pour les joueurs inscrits, particulièrement ceux qui s'efforcent de maintenir l'abstinence.

Introduction

In Australia, electronic gaming machines (EGMs) are restricted to licenced premises, that is, pubs/hotels, clubs, and casinos. There were 197,105 EGMs in Australia between 2015 and 2016, resulting in a ratio of one machine per 121 people (Ziolkowski, 2016), typically located in close proximity (<5 km travel distance) to community members (Brown, Pickernell, Keast, & McGovern, 2011). In terms of the total number of gaming machines, Australia was ranked sixth in the world behind (1) Japan, (2) the United States, (3) Italy, (4) Germany, and (5) Spain (Ziolkowski, 2016). Despite a 12% decrease in EGM expenditure over the past decade (Queensland Government Statisticians Office, 2016), Australian residents continue to spend more money on gambling than do residents of any other country, the largest portion continuing to be derived from gaming machines (H2 Gambling Capital, 2015). Most Australian individuals gamble recreationally and within personally affordable limits; however, recent estimates based on past-year scores from the Problem Gambling Severity Index (PGSI) suggest that 0.4–0.6% of the adult population experience significant problems (score ≥ 8) related to gambling (Dowling et al., 2016; Gainsbury et al., 2014). Similar rates are reported in prevalence studies from New Zealand (0.4–0.7%; Ministry of Health, 2009; Tu, 2013), France (0.4–0.5%; Costes, Eroukmanoff, Richard, & Tovar, 2015; Costes et al., 2010), Great Britain (0.4–0.7%; Seabury & Wardle, 2014; Wardle, Griffiths, Orford, Moody, & Volberg, 2012), and British

Columbia, Canada (0.7%; R.A. Malatest & Associates Ltd., 2014). It is widely accepted that EGMs represent the highest risk for the development of gambling problems compared with other forms of gambling (see M. Abbott, 2006; Dowling, Smith, & Thomas, 2005; Productivity Commission [PC], 2010). According to the PC (2010), approximately 80% of individuals who accessed gambling treatment services did so because of problems with EGMs (PC, 2010). Consequently, the development of harm minimization strategies and treatment services is predominantly directed toward this form of gambling.

Self-exclusion is a key initiative in which an individual enters into an agreement with a gambling operator for a predetermined period to deny that individual access to a venue and to be removed if detected there. This agreement, which typically lasts between 6 months and life, places responsibility on the individual to refrain from entering nominated sites. In addition, operators are required to take appropriate steps to detect and/or remove those breaching such an agreement. Although the basic principles of self-exclusion are consistent, programs vary significantly between countries as a result of different gambling environments and jurisdictional and legislative frameworks. In many jurisdictions, self-exclusions are processed at the level of the venue; however, programs are beginning to transition to centrally administered systems, enabling simultaneous exclusion from multiple venues. Nationwide programs operate in several European member states, including France, Poland, Denmark, Sweden, Estonia, and Switzerland (Laansoo & Niit, 2009; Nowatzki & Williams, 2002). A National Online Self-Exclusion Scheme in the United Kingdom is forthcoming with a scoping study currently in progress and implementation planned for the end of 2017 (Remote Gambling Association, 2016). According to Auer, Littler, and Griffiths (2015), draft legislation in the Netherlands outlines a central self-exclusion registry covering both land-based and online gambling operators.

Despite recommendations for a single nationwide register (PC, 2010), a host of self-exclusion programs exist in Australia (see Australian Gaming Council [AGC], n.d.). Each program is managed differently according to local state/territory legislation (AGC, n.d.), resulting in inconsistencies in procedures in which individuals are required to exclude from venues separately under different self-exclusion schemes. A national self-exclusion program would substantially reduce the costs and complexities associated with multiple programs and enhance the capacity to monitor and evaluate effective outcomes.

Motivations and Barriers to Self-Exclusion

Consistent with previous research showing that few people seek professional help for gambling problems (see Gainsbury, Hing, & Suhonen, 2013; Suurvali, Cordingley, Hodgins, & Cunningham, 2009), the uptake of self-exclusion is low, with an estimated 9–17% of past-year problem gamblers being enrolled in programs (PC, 2010). The true percentage is likely significantly less, as the estimate does not account for lifetime problem gamblers nor does it account for individuals who enter self-exclusion for other reasons (Griffiths & Auer, 2016; PC, 2010). Studies have identified various

factors that may prevent problem gamblers from self-excluding. The most common are the personal investment of time and resources required to join a program (Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, & Tiyce, 2014; Nowatzki & Williams, 2002) and shame or embarrassment related to stigma associated with problem gambling (Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, et al., 2014; Parke, Parke, Harris, Rigbye, & Blaszczynski, 2015; PC, 2010). These barriers are compounded in programs involving complex enrolment procedures that are non-discretionary and require individuals to repeat the process for each venue they wish to exclude from. This underscores the importance of designing the structural elements of programs so that they encourage participation.

A study of 60 Victorian self-excluders (J. Abbott, Francis, Dowling, & Coull, 2011) found that slightly more than half (55.5%) of the participants waited at least 1 month before joining self-exclusion after finding out about the program. The most significant barriers to joining immediately included admitting to oneself that there was a problem requiring external assistance and the desire to continue gambling. J. Abbott et al. (2011) also examined the factors motivating participants to self-exclude and found that financial concerns, emotional distress, harm to relationships, and feeling "out of control" played a significant role in leading to decisions to self-exclude. These responses are consistent with other research involving self-exclusion motivations (Hayer & Meyer, 2011; Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, et al., 2014; Nelson, Kleschinsky, LaBrie, Kaplan, & Shaffer, 2009). Raising awareness of the benefits associated with self-exclusion is critical to improving rates of enrolment.

The Effectiveness of Self-Exclusion

Research suggests that self-exclusion programs are generally effective in generating self-reported benefits of reduced gambling frequency and expenditure; improved financial circumstances; fewer negative impacts, including psychological; diminished urges to gamble; and greater control over gambling (Gainsbury, 2014; Hayer & Meyer, 2011; Hing, Tolchard, Nuske, & Russell, 2014; Ladouceur, Sylvain, & Gosselin, 2007). Despite positive outcomes, significant limitations of self-exclusion have also been identified, including failure to adhere to exclusion orders, with 36–60% of individuals breaching their agreements (Ladouceur, Jacques, Giroux, Ferland, & Leblond, 2000; Ly, 2010; Nelson et al., 2009), often on multiple occasions (Ladouceur et al., 2000). Furthermore, of the participants who breached self-exclusion, between 48% and 77% remained undetected (Schrans, Schellinck, & Grace, 2004; Verlik, 2008), resulting in gamblers questioning the value of entering such programs (Gainsbury, 2014). Under current practices, however, it is arguably unrealistic to expect staff to recognize all self-excluded patrons from photographs, particularly where programs span large areas over multiple venues (Hing, Tolchard, Nuske, Holdsworth, et al., 2014). Current programs are also limited by their inability to regulate participation in alternative forms of gambling or to prevent gambling in other similar venues. Controlling gambling behaviour outside the parameters of the agreement, however, is not the objective of self-exclusion. The Responsible Gambling Council (2008) reported that 59% of self-excluders use other forms of

gambling during their ban, and studies have found that most participants (70–80%) gamble at other locations where the self-exclusion agreement does not apply (Croucher, Croucher, & Leslie, 2006; De Bruin, Benschop, Braam, & Korf, 2006; Nelson et al., 2009).

Centralized Multi-Venue Self-Exclusion

Multi-venue self-exclusion (MVSE) is a program introduced by one gambling industry representative body to address some of the limitations of self-exclusion programs. MVSE was introduced to reduce the complexities of registration by establishing a centralized web-based system. In this system, self-excluders are able register offsite in collaboration with a specialist gambling counsellor during face-to-face treatment interventions or with a venue staff member. Counsellor-facilitated entry into the program is designed to enhance privacy and minimize shame and embarrassment. One study that evaluated the experience of 58 South Australian self-excluders (Hing & Nuske, 2012) reported that the ability to self-exclude from a centralized location, away from the gambling venue, appeared to be advantageous over programs that require exclusions to be processed directly from the gambling venue. The evaluation of an "improved" self-exclusion program in Montreal by Tremblay, Boutin, and Ladouceur (2008; $N = 116$) included a voluntary meeting with a counsellor. Participants who chose to attend (40%) found the meeting to be "quite" or "very useful" in assisting them to assess their gambling habits and to identify help channels (Tremblay et al., 2008).

The MVSE system is also set up for gamblers to self-exclude from up to 35 concurrent venues. Although not exclusively the case, several self-exclusion programs in Australia still operate under a single-site model, a process identified as a significant deterrent to participation (Gainsbury, 2014; Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, et al., 2014). Self-excluding venue by venue is time-consuming and can be emotionally distressing for the gambler (Hing, Tolchard, Nuske, Holdsworth, et al., 2014). In addition, the PC (2010) argued that systems that do not provide multiple-venue self-exclusion are flawed, as gamblers have ample opportunity to access other venues.

MVSE participants are offered the choice of self-excluding from entry into a venue or from designated areas within that venue, for example, the gambling areas, permitting individuals to use non-gambling facilities. Although exclusion from just the gaming area has been shown to be a popular option among participants (89%; Hing & Nuske, 2012), staff confusion over what areas participants are banned from has been reported (Hing, Tolchard, Nuske, & Russell, 2014).

Current Study

This study is among the first empirical investigations of a centralized MVSE program. Based on a small self-selected sample, this study is exploratory and intended to provide early retrospective data to elicit details about the processes involved leading up to entry into the MVSE program, entering the program, and during the program,

in addition to the self-reported outcomes achieved. The specific objectives of this study were to explore and investigate participants' (1) motivations and deterrents to self-excluding, (2) attitudes and experiences related to different features of the MVSE system, and (3) self-reported impacts of MVSE on gambling problems. Prior self-exclusion research suggests that involvement in the program generates various self-reported benefits for the participants. The motivations and barriers to self-exclusion were not expected to differ greatly from what has previously been found. However, design features incorporated in the MVSE program should help reduce external deterrents, specifically inconvenience and embarrassment. The results of this study can be used to inform general program enhancements that will improve the uptake of and compliance with self-exclusion agreements, thus leading to more successful outcomes for self-excluded gamblers. The hope is that this study will stimulate and guide future investigations of improved self-exclusion programs that use longitudinal representative research designs.

Method

Participants

Of the 1,724 individuals who had self-excluded through the MVSE program by the commencement of the study, 656 indicated their willingness to be contacted to participate in research projects. Of these participants, 458 met the study time frame inclusion criteria of enrolment for between 6 and 24 months. Two hundred and sixty-six individuals from this subgroup provided valid email or telephone contact details, 56 agreeing to participate in the study. Twelve participants withdrew at various time points after providing baseline demographic data, resulting in a final sample of 44 participants. The consort diagram in Figure 1 displays the flow of participants throughout the study protocol. Independent sample t tests showed that, compared with participants who completed the survey ($n = 44$), those who withdrew ($n = 12$) had significantly lower education, $t(54) = -2.80$, $p = .007$, but no other significant demographic differences were detected.

Procedure

The MVSE program was developed and is managed by the responsible gambling sector of a gambling industry representative body. For this study, eligible MVSE participants were emailed a recruitment invitation containing a URL link to an online survey. Survey invitations were sent at specific time points during participants' self-exclusion period for the purpose of comparison. The point at which participants received this email depended on duration of enrolment at the commencement of the study (i.e., a participant enrolled for 9 months at time 0 would receive the survey at 12 months). Ten participants (22.7%) completed the survey after 6 months of self-exclusion, 15 (34.1%) after 12 months, 13 (29.5%) after 18 months, and six (13.6%) after 24 months. The participant information statement and consent forms were included at the beginning of the survey. Participants were mailed a $20 department store gift card as reimbursement for completing the survey. The University of Sydney
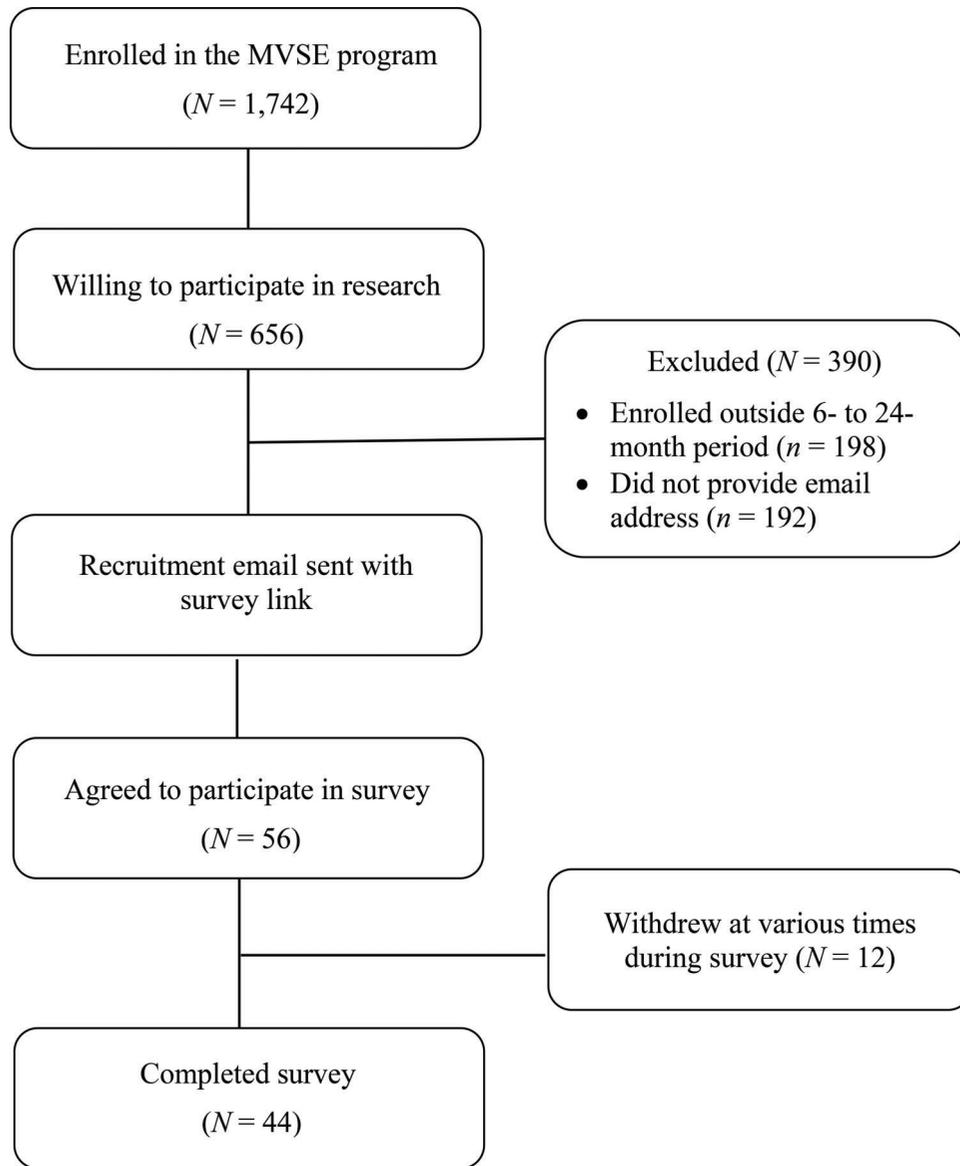
Figure 1. Consort diagram of participants' flow throughout the study. MVSE = multi-venue self-exclusion.

Human Research Ethics Committee, University of Sydney, approved the study (protocol # 2014/683).

Measures

The structured survey was designed to collect the following information: (1) socio-demographic information; (2) gambling history prior to self-exclusion ([a] open response questions on length of gambling problem, sum of gambling-related debts, average expenditure per session, and days per week and hours per day during heaviest gambling period and [b] a single-response question on main problem gambling form); (3) motives for and barriers preventing self-exclusion (selected from multiple-response options); (4) experiences accessing and enrolling in the MVSE

program ([a] 4-point Likert items ranging from *very easy* to *very difficult*, [b] a single-response question about the specific area(s) of the venue excluded from, and [c] multiple-response questions about information sources on MVSE and the helpful/ unhelpful features of enrolment); (5) additional help-seeking behaviour before/during entry into the MVSE program ([a] one question containing multiple responses of different help sources or a fixed response of no help sought and [b] a 5-point Likert item about the extent of help effectiveness from *not at all* to *a great deal*); (6) experiences during the program, including compliance ([a] dichotomous forced-choice questions about gambling during self-exclusion in a nominated venue, other venue, or other form; [b] open-response questions on frequency of breaches and detections; and [c] 5-point Likert items ranging from *not at all* to *a great extent* on the benefits of MVSE for various gambling-related problems). For the analysis of compliance, a breach was operationalized as an episode of gambling at a nominated MVSE venue while self-excluded.

The PGSI of the Canadian Problem Gambling Index (CPGI-PGSI; Ferris & Wynne, 2001).   The CPGI-PGSI was administered to screen for problem gamblers. The CPGI-PGSI is a nine-item scale widely used to classify non-problem (0), low risk (1–2), moderate risk (3–7), and problem (8+) gamblers. The scale has demonstrated good internal consistency (0.84, Ferris & Wynne, 2001; 0.92, Mcmillen & Wenzel, 2006), test-retest reliability (0.78), specificity (1.00), and classification accuracy (0.83; Wynne, 2003). PGSI items traditionally apply a 12-month time frame; however, the reference point was modified to 6 months to reflect the time categories adopted in this study. The scoring method described in the original manual was applied (Ferris & Wynne, 2001).

The Depression, Anxiety, and Stress Scale - Short Form (DASS-21; Lovibond & Lovibond, 1995).   This is a 21-item self-report scale that assesses symptoms of depression, anxiety, and stress. The sum of all items indicates overall psychological distress. Internal reliability coefficients of .94 (DASS-D), .87 (DASS-A), and .91 (DASS-S), have been reported for clinical and community samples (Antony, Bieling, Cox, Enns, & Swinson, 1998).

World Health Organization Quality of Life – Brief version (WHOQOL-brief; The WHOQOL Group, 1998).   This 26-item version of the WHOQOL-100 was developed to assess four domains of quality of life: physical health, psychological health, social relationships, and environmental domains. There are also a further two individual items in the WHO-QOL that are not part of the domain scores, which measure overall quality of life and general health. Internal consistency in a large international sample was acceptable for all domains (α = 0.80-0.82), barring social relationships where it was marginal (0.68; Skevington, Lotfy, O'Connell, & WHOQOL Group, 2004).

Statistical Analyses

Frequency statistics were used to assess variables related to motivations and barriers, access and enrolment in the MVSE program, additional help seeking, compliance

and detection, and self-reported impacts of the program. Psychometric scores were compared between groups: (1) period of self-exclusion (6–12 months and 18–24 months) and (2) abstinence versus non-abstinence. Time categories were collapsed to ensure sufficient *n* in each subgroup for valid statistical results. This study defined abstinence as no participation in any form of gambling with the exception of "soft" gambling activities (i.e., scratch tickets, lotto, raffles not associated with gambling disorders in Australia [NSW Lotteries, 1998]) between entry into the self-exclusion program and the time of assessment (Blaszczynski, 2010). Independent sample *t* tests, nonparametric Mann-Whitney *U* tests, and Pearson's chi-square tests were used to analyse continuous, ordinal, and nominal dependent variables, respectively.

Results

Sample Characteristics

The original sample of 56 participants comprised 31 males (55.4%) and 25 females (44.6%) who were active within the self-exclusion program for a mean of 14.14 months ($SD = 5.99$). Female participants were significantly older ($M = 49.56$, $SD = 14.77$) than male participants ($M = 37.90$, $SD = 11.17$), $t(54) = -3.36$, $p = .001$. Approximately one-third of participants (35.7%) were married or living with a partner and the remaining two-thirds (64.3%) were single. Most participants identified as being of Australian background (85.7%). Education levels were mainly high school (46.5%) and trade certificate (28.6%). Most participants (62.5%) worked full or part time, though a significant minority were unemployed or receiving disability benefits (26.8%). The median household income range for the sample was AUD$20,000–$50,000, which is markedly lower than the national average household income of AUD$145,400 (Australian Bureau of Statistics & IBISWorld, 2014).

Participants reported that they had commenced gambling at a median age of 18 years and that gambling had been a problem for a median of 9 years. Fifty-one of 53 participants identified EGMs as contributing most to their gambling problems (96.2%), with the remaining participants identifying sports and track betting. During their heaviest gambling, participants gambled at a mean frequency of 4.83 days per week ($SD = 1.70$) for 5.38 hours per day ($SD = 4.48$) and had a median expenditure of AUD$500 per session. A median of AUD$30,000 of gambling-related debt was accumulated before enrolling in the MVSE program.

Motivations and Barriers

The motivations and barriers to self-excluding are listed in Table 1 in descending order of importance. Participants indicated their main motivational reasons for joining the program were losing too much money as a result of gambling, feeling they had lost control of their gambling, and experiencing financial difficulties (e.g., unpaid bills, debt, bankruptcy). Thirty-six of 49 self-excluders reported a delay between obtaining information about the program and registering in it (73.5%). The delay

Table 1
Motivations and Barriers to Self-Excluding

Description	*n*	%
Motivations (*n* = 51)		
Lost too much money gambling	35	68.6
Loss of control over gambling	33	64.7
Financial problems due to gambling	24	47.1
Problems with family/friends due to gambling	22	43.1
Realization of extent of gambling problems	21	41.2
Spent too much time gambling	21	41.2
A recommendation made by a counsellor	20	40.8
As a preventative measure	15	30.6
Other strategies were not working	12	24.5
Found out that the program existed	11	22.4
Barriers (*n* = 36)		
Wasn't ready to stop gambling	18	50.0
Wanted to chase losses	17	47.2
Was too embarrassed to sign up	17	47.2
Denial about gambling problems	13	36.1
Was concerned about my privacy	9	25.0
Didn't believe it would work	8	22.2
Didn't know that MVSE existed	3	8.3
I felt the process was too complicated	3	8.3
No obstacles/barriers	1	2.8

Note. MVSE = multi-venue self-exclusion.

varied from 1 day (*n* = 3) to 3 years (*n* = 2), with an overall median of 14 weeks. Participants reported that the primary factor in delaying enrolment was that they were not yet ready to stop gambling, followed by the desire to continue chasing losses and being too embarrassed to sign up. Only one participant of this subgroup indicated that they experienced no barriers or obstacles to self-excluding.

Experiences of MVSE

Forty-two of 49 participants indicated that it was somewhat or very easy to obtain information about the MVSE program (85.7%), with seven participants stating that it was somewhat difficult (14.3%). More than one-third of participants found out about the program through a clinical psychologist or counsellor (38.8%) and just over half chose to enrol via this channel (52.3%). Other key sources of information were physical in-venue advertising such as brochures, posters, and cards (30.6%); an online or telephone gambling helpline (24.5%); venue or industry websites (22.4%); gambling venue staff (16.3%); and significant others, including family, friends, and partners (14.2%). Forty-one participants found enrolment into the program somewhat or very easy (83.7%), whereas seven participants found the process somewhat difficult (14.3%) and one found it somewhat or very difficult (2.0%). Chi-square analysis did not show a significant difference in the ease of enrolment between

individuals who self-excluded with a counsellor compared with those who self-excluded in venue, $\chi^2(1) = 2.83$, $p = .093$.

Twenty-seven of 50 participants chose to exclude from the EGM (gaming) area only (54.0%), whereas 14 selected all gambling areas (28.0%), including EGMs, sports and track wagering, and keno lotteries, six excluded from the entire club (12.0%), and three selected different areas across different venues (6.0%). Features of the program that participants identified as helpful or unhelpful are shown in Table 2 in descending order of importance. The most helpful self-reported feature of the MVSE program was the ability to self-exclude from multiple venues at once. Participants endorsed other features as being helpful, including the ease of the enrolment process and the availability of information that outlined the MVSE program. Negative aspects of the program were overall less frequently endorsed than positive aspects. Features identified as being unhelpful included concerns regarding personal privacy, the enrolment process taking too long, and venue staff not being knowledgeable or supportive.

Additional Help Seeking

Prior to their enrolment in MVSE, 46 of 53 participants had sought some other form of help for their gambling problem (86.8%). The most common help sources were gambling counsellors (56.6%) and a gambling telephone helpline (43.4%). Over two-thirds

Table 2
Helpful and Unhelpful Features of the MVSE program

Description	*n*	%
Helpful		
The ability to self-exclude from multiple venues at once	32	64.0
Ease of enrolling in the program	26	52.0
Information outlining the self-exclusion program	25	50.0
The ability to self-exclude from outside the venue with counsellor support	23	46.0
Support from counsellor or venue staff in enrolling in the program	22	44.0
The use of the online system to enrol in the program with limited paperwork	20	40.0
Knowing that venue staff will identify me if I breach	20	40.0
Support from counsellor or venue staff during the program	13	26.0
Information about other gambling help services such as counselling	12	24.0
Unhelpful		
Concern about privacy of personal information	14	28.6
Enrolment took too long	9	18.4
Staff not very supportive or knowledgeable	7	14.3
Attending a meeting with the counsellor/club manager	6	12.2
Too much paper work to complete	5	10.2
Lack of sufficient information on the program	3	6.1
Difficulty in filling out the enrolment form	2	4.1
The MVSE website was difficult to navigate	2	4.1
Can select only a limited number of venues	2	4.1

Note. $N = 50$. MVSE = multi-venue self-exclusion.

indicated that this help was at least somewhat effective (68.9%); under one-third said that it was of very little or no assistance at all (31.1%). During self-exclusion, 33 of 52 participants had sought help for their gambling problem as well as MVSE (63.5%); an additional three participants intended to seek further help. A Pearson chi-square test showed that participants who enrolled with a counsellor were no more likely to seek help during MVSE than were participants who enrolled in a gambling venue, $\chi^2(1) = 0.11$, $p = .735$. The most frequently reported help sources were family and/or friends (42.4%), followed next by a gambling counsellor (33.3%). Such help was considered by most to be of at least some assistance (60.6%), although 39.4% of participants indicated that it was of very little or no assistance at all. Four out of five participants believed that self-exclusion by itself was not sufficient to completely prevent gambling (80.0%), with gambling counsellors endorsed most frequently as appropriate additional support (60.0%).

Compliance

Analysis showed that 18 of 48 participants had breached the MVSE agreement (37.5%) a mean of 6.15 times ($SD = 5.17$). Sixty-seven percent of those reportedly breaching the agreement were detected a mean of 3.9 times ($SD = 5.45$), resulting in a detection rate of 42.3% (i.e., detection rate = [n detected $\times$ M incidences detected] $\div$ [n breached $\times$ M breach incidences] $\times$ 100). Approximately two-thirds of participants had gambled in other non-MVSE venues during their self-exclusion (63.3%) and approximately one-third used alternative forms of gambling (30.6%). Overall, one-fifth of participants remained completely abstinent from gambling during the MVSE program (20.4%).

Table 3 shows the reasons that participants did or did not comply with the program from most to least important. The subsample of 30 participants who did not breach their agreements identified their main reasons for compliance as worry about being caught breaching, feeling more in control of their gambling, and not wanting to disappoint themselves or others, including family and friends. Eighteen non-compliant participants indicated that immediate relief from negative emotions was the main reason motivating them to breach agreements by gambling at a nominated excluded venue. Another motivation endorsed more frequently than others was participants' belief that they would not be caught breaching by venue staff.

Self-Reported Outcomes of MVSE

The self-reported impacts of participation in MVSE are presented in Table 4. Most participants found that MVSE helped at least moderately to reduce their gambling behaviour and urges to gamble; enhanced feelings of control over gambling; improved their financial position, interpersonal relationships, work performance, and engagement in daily/lifestyle activities; and reduced the severity of negative emotions. The remaining smaller portions of participants indicated that MVSE was of little or no help for these variables.

Table 3
Reasons for Complying or Not Complying With the MVSE program

Description	n	%
Compliant (*n* = 30)		
Worried about being identified and removed from the venue	16	53.3
Increased self-control	12	40.0
Did not want to disappoint myself	12	40.0
Did not want to disappoint others (e.g., family, friends)	10	33.3
Support from family/friends	8	26.7
Self-help strategies (e.g., avoiding venues, engaging in other activities)	8	26.7
No longer had the urge to gamble	7	23.3
Gambled at other venues	6	20.0
Support from counsellor/helping professional	4	13.3
Shifted to other types of gambling	1	3.3
Non-compliant (*n* = 18)		
To reduce negative feelings (e.g., sadness, anxiety, stress, boredom)	10	55.6
I believe that I would not be caught by venue staff	9	44.4
My urge to gamble was too strong	6	33.3
Friends invited me to go to the venue to socialize	6	33.3
I had a strong need to win money to cover financial debts/pressures	5	27.8
Did not know that I was banned from that venue	2	11.1

Note. MVSE = multi-venue self-exclusion.

Table 4
Self-Reported Impacts of the MVSE program

	%				
	1	2	3	4	5
To what extent has the multi-site self-exclusion program helped…					
…you reduce your gambling?	6.4	19.1	25.5	19.1	29.8
…to reduce your urge to gamble?	17.0	19.1	25.5	25.5	12.8
…to improve your feelings of control over your gambling?	8.5	19.1	36.2	21.3	14.9
…to improve your financial situation?	10.6	14.9	27.7	25.5	21.3
…with your relationships (e.g., with family, friends, colleagues)?	17.0	12.8	31.9	14.9	23.4
…with your performance at work?	21.7	13.0	37.0	13.0	15.2
…to improve your engagement in daily and lifestyle activities (e.g., hobbies, chores, social events, sport)?	12.8	12.8	36.2	17.0	21.3
…with any negative emotions (e.g., sadness, anxiety, stress) you may have as result of your gambling?	19.1	10.6	31.9	21.3	17.0

N = 47. 1 = Not at all; 2 = To a small extent; 3 = To a moderate extent; 4 = To a large extent; 5 = To a great extent/completely; MVSE = multi-venue self-exclusion.

Tables 5 displays results from the included psychometric outcome measures. More than three-quarters of the total sample (78.7%) met the criteria for a gambling problem on the basis of the $\geqslant 8$ scoring threshold of the PGSI. Sixty percent of abstinent participants met the problem gambling criteria compared with 83.8% of

Table 5

Group Differences in Psychometric Scores Between 6 and 12 Months and 12 and 24 Months and Between Abstinent and Non-Abstinent MVSE Participants

Variable	Total Sample	M (SD)				p^1	p^2
		6–12 months (n = 25)	18–24 months (n = 19)	Non-abstinent (n = 35)	Abstinent (n = 9)		
PGSI	14.32 (7.98)	15.04 (7.63)	13.26 (8.56)	15.35 (7.33)	10.50 (9.47)	.461	.088
DASS-21							
Depression	15.73 (12.95)	17.44 (13.37)	13.47 (12.36)	17.94 (12.98)	7.11 (8.95)	.320	.023*
Anxiety	12.23 (10.45)	12.08 (11.05)	12.42 (9.90)	13.49 (10.37)	7.33 (9.80)	.916	.116
Stress	17.36 (12.11)	16.80 (12.26)	18.11 (12.19)	19.66 (12.02)	8.44 (7.80)	.728	.011*
WHOQOL-brief							
Psychological	12.11 (4.00)	11.33 (3.91)	13.12 (3.99)	11.31 (3.73)	15.19 (3.68)	.144	.008**
Social	11.67 (4.29)	10.88 (4.57)	12.70 (3.75)	10.59 (3.88)	15.85 (3.16)	.165	.001**
Physical	13.77 (3.39)	13.62 (3.49)	13.95 (3.34)	13.39 (3.15)	15.24 (4.09)	.752	.147
Environmental	13.53 (3.04)	13.06 (3.36)	14.16 (2.52)	12.83 (2.73)	16.28 (2.72)	.240	.002**
Overall quality of life	Mdn = 4.00	Mdn = 3.00	Mdn = 4.00	Mdn = 3.00	Mdn = 4.00	.020*	.013*
General health	Mdn = 2.50	Mdn = 2.00	Mdn = 3.00	Mdn = 2.00	Mdn = 4.00	.451	.033*

Note. MVSE = multi-venue self-exclusion; p^1 = group comparisons between 6 and 12 months and 12 and 24 months; p^2 = group comparisons between abstinent and non-abstinent participants; PGSI = Problem Gambling Severity Index; DASS-21 = Depression, Anxiety, and Stress Scale - Short Form; WHOQOL-brief = World Health Organization Quality of Life – Brief version; Mdn = median.

* $p < .05$, ** $p < .01$, two-tailed.

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non-abstinent participants. The *t*-test comparisons of PGSI scores, however, did not show a significant difference, $t(45) = 1.74$, $p = .088$. Scoring on the DASS-21 showed that participants on average reported moderate depression and anxiety and mild stress symptoms. Compared with non-abstinent participants, abstinent participants reported significantly lower depression scores, $t(42) = 2.35$, $p = .023$, and stress scores, $t(42) = 2.65$, $p = .011$, but not anxiety scores, $t(42) = 1.60$, $p = .116$. Across all quality-of-life domains (WHOQOL-brief), the average scores were below general population norms (Hawthorne, Herrman, & Murphy, 2006), though comparable to those of pathological gamblers (Mythily, Edimansyah, Qiu, & Munidasa, 2011). Of the standalone items, participants generally rated their quality of life as "good," though they rated their health between "neither satisfied nor dissatisfied" and "dissatisfied." Statistical comparisons between different enrolment periods showed that participants in the program for longer reported significantly higher "overall" quality of life than did those enrolled for 12 months or less, $U = 143.00$, $p = .020$. Comparisons between abstinent and non-abstinent participants revealed that the first group had significantly higher quality of life in the social, $t(42) = -3.75$, $p = .001$, environmental, $t(42) = -3.38$, $p = .002$, and psychological domains, $t(42) = -2.79$, $p = .008$, as well as higher overall quality of life, $U = 75.50$, $p = .013$, and general health, $U = 88.50$, $p = .033$. Treatment seeking during self-exclusion was identified as a potential confounder; however, univariate comparisons that used this as the independent variable did not reveal significant differences across all psychometric outcomes.

Discussion

Internationally, self-exclusion programs are evolving toward centralization, especially in European jurisdictions. Many programs in Australia, however, are still limited to single-venue exclusions. This exploratory study is among the first to provide empirical results from a centralized MVSE program. Our results showed that participants viewed the ability to nominate multiple venues simultaneously as particularly useful. Other positive aspects of the program included the capacity for counsellors to facilitate the registration process offsite and the simplicity of the enrolment process completed via a paperless central system. Counsellors were responsible for a considerable portion of participants finding out about the program in the first instance, although just under half of the participants chose to self-exclude at the venue, demonstrating that this remains a popular method to access programs. Approximately two-thirds of participants sought external help in addition to self-excluding, in contrast to previous findings that a maximum of one-third of participants sought such help (Hayer & Meyer, 2011; Ladouceur et al., 2000). As well as professional counselling, support from family and friends was a key source of help during self-exclusion in the current study. Similar to the findings of Hing and Nuske (2012), most participants in the current study chose to self-exclude from the gaming machine or gambling areas only, suggesting that they still wanted access to other non-gambling facilities in venues. Contrary to prediction, a number of participants expressed concern regarding the degree of privacy the program affords; for some, the process of enrolling could have been more efficient and the venue staff more helpful. Mistrust towards the collection of personal information in electronic databases is

common (Lowrance, 2012), and system faults often co-occur with the implementation of new technology, which may affect its efficiency. Participation in the MVSE program resulted in several self-reported improvements, namely, reduction of gambling behaviour, decrease of urges and increase of self-control, and reduction of psychosocial harms typically associated with gambling. This result is consistent with those of other evaluations of self-exclusion programs (Gainsbury, 2014). In contrast to results of previous studies (Hayer & Meyer, 2011; Hing, Russell, Tolchard, & Nuske, 2015; Ladouceur et al., 2007; Townshend, 2007; Tremblay et al., 2008), most participants in the current study still met criteria for a gambling problem and were experiencing mild to moderate symptoms of psychological distress. One possible reason is that four-fifths of participants continued to gamble at self-exclusion or non-self-exclusion venues, or used alternative forms of gambling. In contradiction to this explanation, however, 60% of abstinent participants were classified as problem gamblers. Such findings are difficult to interpret, given the small sample and lack of baseline data. Although not present across individual domains, overall quality of life was found to be "good" for participants who self-excluded for over 12 months, which was significantly higher than it was for those enrolled in the program for shorter periods. Remaining abstinent during self-exclusion was associated with superior outcomes in terms of lower stress levels and symptoms of depression, as well as greater quality of life across several domains and overall. This finding suggests that total abstinence, as opposed to limiting access only to some venues or gambling forms, may be the most appropriate goal for individuals entering a self-exclusion program.

This study also elicited valuable insights into the motivating factors that may lead to or otherwise prevent decisions to self-exclude and may influence decisions to comply or not comply with self-exclusion agreements. Participants mainly self-excluded because they had lost too much money gambling and felt they had lost control. External factors, including financial difficulties and relationship problems, motivated program entry, as well as internal factors of recognition of problems and the time spent gambling. As expected, the key motivations for self-excluding identified in this study reflect those underscored in the literature, including the negative financial, relationship, and psychological impacts of problem gambling (Abbott et al., 2011; Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, et al., 2014; Nelson et al., 2009). Similarly, the factors preventing enrolment in MVSE have previously been identified as barriers to self-excluding (Abbott et al., 2011; Hing & Nuske, 2012; Hing, Tolchard, Nuske, & Russell, 2014; Parke et al., 2015; PC, 2010). Personal unwillingness to give up gambling, desire to win back losses, and embarrassment or denial of gambling problems delayed entry into the program. Adding to these disincentives were doubts about the efficacy and privacy of the MVSE system.

Although compliance and detection rates were comparable to those reported in previous self-exclusion studies, gambling at non-excluded venues was slightly lower than previously reported (Ladouceur et al., 2000, 2007). This finding may be partly due to the greater scope of MVSE in its capacity to limit access to surrounding venues, in addition to those frequently attended. Approximately half of those who breached self-exclusion gambled to reduce negative emotions, supporting theories of

gambling as an avoidance-based coping strategy (Petry, 2005). Fear of being caught was recognized as the largest motivation for being compliant during self-exclusion. Interestingly, the second highest reason for participants not complying was because they did not believe they would be detected. These contrasting attitudes may identify a significant motivational factor differentiating compliant and non-compliant participants, that is, divergent beliefs about the probability of being caught breaching.

Implications

Findings from this study support a number of recommendations for the development and management of MVSE programs. The enhancement of detection systems in venues is a critical part of maximizing compliance within self-exclusion programs and ultimately the overall success of programs as they expand beyond the single gambling venue. It is important that detection systems evolve to meet the challenges associated with the expansion of the self-exclusion system (i.e., a larger pool of self-excluded gamblers). Currently, the identification of non-compliant self-excluders based on a photograph is highly problematic (Gainsbury, 2014). Future integration of self-exclusion systems with emerging industry technology is a cost-effective method to improve detection capabilities (e.g., ID scanning and facial recognition; Leonard & Eadington, 2007; Thomas et al., 2016). Increasing the rates of enforcement is expected to reinforce self-excluders' confidence in the efficacy of the system, thus reducing the incidence of breach attempts. In addition, strategies (e.g., in-venue signage) designed to communicate to individuals the probability that they will be detected on breaching could also motivate compliance by increasing the perception of the program as being robust and effective.

From the results of this study and the findings of previous research (Abbott et al., 2011; Hing & Nuske, 2012; Hing, Tolchard, Nuske, Holdsworth, et al., 2014), personal privacy and associated embarrassment are significant concerns for people entering self-exclusion agreements. Disseminating educational material at the community level and within venues designed to combat negative stereotypes surrounding problem gambling and to encourage help seeking will help reduce stigma and improve the uptake of self-exclusion (Gainsbury, 2014). Anxiety about the exclusion process may also be mitigated at the system level by maximizing the convenience of registration and by demonstrating discretion. The centralized system streamlines enrolment, and providing offsite enrolment options with a trained counsellor assists with discretion. Nonetheless, regular system updates should be conducted aimed at maximizing the efficiency of registrations, and venue staff would benefit from training in the facilitation of MVSE agreements. In addition, remote self-facilitated exclusions have been suggested as an option for people who are not willing to attend the gambling venue or counselling office (Thomas et al., 2016).

Limitations

As an exploratory investigation, this study contained a number of limitations that significantly affect the degree to which these results can be applied. It is likely that

representativeness was weakened by a low response, a high attrition rate, and a small self-selected sample. Previous studies have similarly found low response and/or high attrition rates in self-excluded populations (Hayer & Meyer, 2010, 2011; Künzi, Fritschi, Oesch, Gehrig, & Julien, 2009; Ladouceur et al., 2007; Ly, 2010; Steinberg, 2008), resulting in a paucity of robust self-report data in this area of study (Hayer & Meyer, 2010). One reason for the low response rate in the current sample could be the lower online presence of land-based gamblers relative to Internet gamblers. To improve response rates in this sample, future studies would benefit from administering a paper-based survey in person or by telephone. However, as self-excluders are a unique and small population (relative to the general community) and because few studies have evaluated self-exclusion programs, findings based on a small self-selected sample are still highly relevant to the literature. Furthermore, a lower response rate was to be expected, given the lack of personal contact in the study (Kiezebrink et al., 2009) and the online format of survey administration (Nulty, 2008). In terms of attrition, it must be assumed that the participants who remained in the study had more positive experiences and better outcomes than did those who dropped out. Although this study made comparisons between different time points in MVSE, the data collected was retrospective up to 24 months, thus introducing a high potential for recall error and self-report biases. Questions eliciting detailed information about past gambling behaviours are particularly susceptible to inaccuracies, as empirically shown by Blaszczynski, Ladouceur, Goulet, and Savard (2006); Braverman, Tom, and Shaffer (2014); and Wood and Williams (2007).

Conclusions and Future Directions

The findings of this study suggest that MVSE is a useful tool to assist problem gamblers. As one of the first empirical studies to investigate an MVSE program in Australia, this study supports the utility of simultaneous exclusion from multiple venues and offsite counsellor-assisted enrolment. Guaranteed privacy and enhanced detection were identified as key components of self-exclusion programs that contributed to uptake and long-term effectiveness. Centralized MVSE represents progression toward a best-practice self-exclusion model with the technology required to host expansion toward a standardized national program. Such a program would not only benefit gamblers by streamlining the exclusion process and minimizing the opportunities to gamble in outside venues, but would also provide an extensive self-exclusion database for monitoring outcomes and conducting cross-state evaluations. Future longitudinal studies with baseline data and multiple time points are needed to overcome the limitations of retrospective designs and demonstrate a causal link between participation in self-exclusion programs and positive outcomes.

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