

FINAL REPORT:

Counselling and Support Needs of Long Term Clients ("Long Term Clients Project")

Report Prepared by:
Problem Gambling Foundation of New Zealand

Project Funded by:
Problem Gambling Committee

**Final Report on Counselling and Support Needs of Long Term Clients
("Long Term Clients Project")**

**Re: Contract between PROBLEM GAMBLING COMMITTEE (the Purchaser) and
PROBLEM GAMBLING FOUNDATION OF NEW ZEALAND (the Provider)**

Project brief:

Up to 20% of people receiving gambling treatment from the Provider ("clients") remain in treatment with the Provider and are not discharged following a period of more than twelve months. The Purchaser was interested in ensuring that optimum care and treatment interventions in minimising gambling related harm was received for those clients and their families. In addition, other clients are returning for additional counselling assistance following discharge. Therefore, the Provider was contracted for the development and implementation of a treatment trial for long term clients, to be followed by a recommendation for a protocol for the treatment, care and support of long term clients.

Total budget: \$45,000

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Introduction

The anecdotal observation that clients with gambling are engaging in therapy for increasing lengths of time appears to be supported by empirical data. In a comprehensive compilation of national New Zealand data, Paton-Simpson, Hannifin and Gruys (2002) reported that clients are staying in contact with gambling treatment agencies for longer periods of time. Specifically, they quantified a three-fold increase over a four-year period, from 61 days in 1997 to 168 days in 2001.

The first treatment for gambling appears to have been created in Ohio in 1968 (Petry & Armentano, 1999). However, more than 30 years later, there still does not appear to be an established 'gold standard' of best practice to guide the provision of therapy for problem gambling (Ryder, Jeffcote, Walker and Fowler, 1999). In fact, the issue of how much treatment is required has long been an issue for funders, providers and recipients of counselling services (Crisp, *et al.*, 2001). While, as Crisp *et al.* point out, common sense would predict that a greater number of sessions have a greater impact on the reduction of gambling intensity, the law of diminishing returns would also suggest that beyond some point, additional therapy would become ineffective.

Thus, it is unknown what type, length and breadth of therapy is most efficacious with which group of gambling clients. For instance, it is unknown whether gamblers require differing intensity and duration of treatment than non-gambling family members. Furthermore, while anecdotal data suggest that some clients tend to engage in longer and/or more frequent therapy, there appears to be no research literature analysing how to predict which clients these are likely to be, and how to best cater to their needs.

Research conducted in Minnesota studied six treatment programmes at different treatment locations using six different modalities of therapy (e.g., family systems, 12-step, group, Cognitive Behavioural Therapy, loss and grief, Cognitive Therapy). The average number of sessions taken to indicate completion of therapy ranged from 18-56 and averaged 29.8. However, the researchers noted that no one treatment programme or modality was more effective than the others (Rhodes, 1997). They also found that people who wagered larger amounts (e.g., \$1000 - \$10,000 in one day), females, those with higher levels of education, those with moderate SOGS scores (11-15), and those attending Gamblers Anonymous were more likely to have greater numbers of therapy sessions over longer time frames.

The findings from a Western Australian research project that analysed best practice strategies for gambling treatment providers, suggest it is prudent to tailor treatment to specific client needs, and to move away from a 'one size fits all' approach (Ryder, *et al.*, 1999). However, in a relatively comprehensive review of the scant literature available, Crisp *et al.* (2001) suggest the median number of sessions for therapy for general psychological problems is 5-6. In their own data set (n = 613) which was based across a broad variety of settings, they found that for 68.3 percent of clients who resolved their presenting problems after therapy, they had attended only a few sessions of counselling (n=4 sessions). Thus, in line with other researchers, Crisp *et al.* advocated for providing a minimal number of interventions for the majority of problem gamblers. They suggested further research analysing the impact of DSM-IV severity on length of time in treatment, which the present project is intended to address.

Petry and Armentano (1999) raised the issue of intensity of treatment for gambling, citing evidence that intensive treatments (i.e., large numbers of sessions over a short period of time) are not necessarily more effective than brief interventions. They also suggested that the minimal treatment protocols developed for other health-risk behaviours have been extremely effective and warrant consideration for the gambling field. Other research has indicated that a low-intensity long-term protocol (i.e., low numbers of sessions spread over a reasonably long time frame) with alcohol treatment, for maintaining contact with clients over time spans measured in years may result in better long-term clinical outcomes and reduced long-term health care utilisation and costs (Stout, Rubin, Zwick, Zwiak, & Bellino, 1999).

Prochaska and DiClemente (1983) found that smokers took an average of three attempts to achieve permanent extinguishment of the undesirable behaviour. On this basis and research outlining the appropriateness of their model of change across multiple different behavioural addictions, it is fair to predict that people attending gambling counselling would 'revolve' through therapy several times before achieving long-term maintenance of treatment gains (Prochaska & Velicer, 1997). However, the 'project match' tested the hypothesis that clients with more severe problems have better outcomes when treated more intensively (Edwards & Taylor, 1994) and found no interactive effects between client characteristics, treatment intensity or efficacy of outcome. Thus, the idea of matching client and therapist demographics appears to be an oversimplified approach to maximising outcomes, cost effectiveness and service quality.

The range of treatment delivery available for clients who gamble in New Zealand ranges between one brief session to longer term interventions over more than 10 sessions. While, due to the nature of gambling being a recurring problem, many clients re-present multiple times, others remain in treatment for long-term therapy that extends to several years. Currently, 36% of gambling clients in New Zealand have remained in treatment for longer than 12 months (Paton-Simpson, Hannifin and Gruys, 2002). Importantly, the nature of engagement with the service appears to differ strongly; 50% of clients receive less than 3 hours of counselling and 33% receive 3-10 hours. The remaining 17% receive more than 10 hours of counselling contact (Paton-Simpson, Hannifin and Gruys, 2002).

While there is some evidence that certain therapies are more effective than others (e.g., the literature suggests that behaviour and cognitive behaviour therapies are more efficacious than psychodynamic therapies), precise research comparing therapies on an equivalent basis with adequately sized samples is not available at this point. Hence, the present practice of providing therapies based on the therapists' training as opposed to empirical validation continues. Thus, there is an urgent need to evaluate the needs of particular client groups and to match therapeutic delivery in a manner that maximises: (a) therapeutic outcomes, (b) cost effectiveness of delivery and (c) availability of therapist expertise. The current project, therefore, aimed to retrospectively analyse the clients in treatment in three categories: (a) long-term clients (i.e., in therapy longer than 12 months), (b) recycling clients (those who had more than one episode of therapy) and (c) brief therapy clients (those who had 2-5 sessions only). The overarching objective was to generate a proposal for interventions that enable long-term clients to minimise gambling-related harm in an optimum manner.

There were three mutually agreed benchmarks for success in the current project:

1. Describe long-term clients, based on a subset of the PGF database
2. Compare long-term and recycling clients and elucidate differences between them
3. Recommend a treatment protocol for a pilot intervention programme that addressed the unique needs of long-term clients

Goal

Quoted from the contract dated 17 December 2001:

4.1 Project

- 4.1.1. Up to 20% of people receiving gambling treatment from the Provider (“clients”) remain in treatment with the Provider and are not discharged following a period of more than twelve months. The Purchaser was interested in ensuring that these clients received optimum care and treatment interventions in minimising gambling related harm for those clients and their families. In addition, a minimum of 55% of “in system” persons (as defined in the Service Agreement between the parties dated 2 July 2001) are returning for additional counselling assistance following discharge.

Components

The original components have been quoted from the contract dated 17 December 2001. However, due to an unfortunate delay in the commencement of work on this project, caused by staff changes within PGF and also by strategic design constraints that subsequently became apparent, the components of the project were refined and amended by the project team. John Hannifin, representing the Provider was informed of this change to contract by Email on 23 May 2002, and subsequently verbally agreed to the amendments. The original and amended components are detailed below and overleaf, with the latter in italic text:

4.2 Components

The Provider will:

- 4.2.1. Demonstrate the engagement of sufficient research capacity to resource the Project. *This was confirmed in the aforementioned Email to John Hannifin, dated 23 May 2002.*
- 4.2.2. Liaise with Oasis on this Project. *This component was not fulfilled due to the late timeframe in which the project was conducted.*
- 4.2.3. Provide a description of the demographic and assessment date of all clients not discharged after twelve (12) months or more of treatment from the Provider (“long term clients”) and those in-service persons (see clause 4.1.1.) who have returned for counselling assistance. Identifying data on this group will be provided by the Purchaser. *This was performed subsequent to the Purchaser providing access to the data via the creation of an adjunctive query programme for the database that was then accessible to project team members.*

- 4.2.4. A review of international experience, through contact with relevant problem gambling treatment agencies, on people with gambling problems who require ongoing treatment, care and support for longer than twelve (12) months. *This was achieved via a literature review of work performed by other national and international treatment providers and researchers.*
- 4.2.5. Develop a strategy to provide treatment, care and support for clients who are receiving longer term care (over 12 months). *A pilot programme for potentially all clients, including longer-term clients, has been developed and discussed within this final report.*
- 4.2.6. Trial the strategy of care for long term clients. *This component was not fulfilled due to the time constraints caused by the delay in commencing this project.*
- 4.2.7. Review progress of clients who have been receiving that care. *This component was not fulfilled due to the time constraints caused by the delay in commencing this project.*
- 4.2.8. Provide a description of the demographic and assessment data of in-system persons (see clause 4.1.1.) who return for additional counselling assistance following discharge and compare this to data on long term clients. *This component has been fulfilled. Additionally, both sets of clients have also been compared with brief therapy clients, being those persons receiving only 2 to 5 sessions of counselling.*

Outcomes

The original outcomes are quoted from the contract dated 17 December 2001. However, due to an unfortunate delay in the commencement of work on this project, caused by staff changes within PGF and also by strategic design constraints that subsequently became apparent, the components of the project were refined and amended by the project team. John Hannifin, representing the Provider was informed of this change to contract by Email on 23 May 2002, and subsequently verbally agreed to the amendments. The original and amended outcomes are detailed below and overleaf, with the latter in italic text:

4.3 Outcome

- 4.3.1. The overall outcomes intended to be achieved by the Long Term Clients Project are:
 - 4.3.1.1. Written description of the profile, therapeutic and care issues for long term clients. This may be for a random subset of the total number of long term clients, a minimum of 30 clients would be acceptable. *The assessment criteria for long term clients has been defined and collected from the database access provided by the Purchaser.*

- 4.3.1.2. A comparison of the demographic and assessment information on long term clients and a random selection (30 clients would be acceptable) of non-long term clients. *The assessment criteria for recycling clients (in-system clients returning for counselling assistance) and brief therapy clients have been defined and collected from the database access provided by the Purchaser.*
- 4.3.1.3. The development of a protocol for trialing a treatment option for long term clients. *The demographics and psychometric data of the three groups of clients (long term, recycling and brief therapy) have been described, compared and evaluated. The national and international experience of other treatment providers and researchers have been reviewed and précised. The information has been documented within this final report for the project.*
- 4.3.1.4. The implementation of a treatment trial(s) for long term clients. *Further analysis of the needs of long term clients has been undertaken via in-depth interviews with clinicians who have counselled long-term clients. This is a variation from the information contained within the Email dated 23 May 2002, which stated that a small group of long-term clients would be interviewed. This variation was necessary because unfortunately, due to time constraints for this project, it was not possible to obtain ethical consent through the appropriate channels to conduct the client interviews within the time frame available. The Purchaser was informed of this variation from the May 2002 Email, in the Interim Report issued on 27 December 2002.*
- 4.3.1.5. Following the treatment trial a written description of a recommended protocol(s) for the treatment, care and support of long term clients. *A strategy and subsequent protocols for supporting all clients, including long-term clients, has been developed and detailed within this final report for the project.*

Project Team

A project team from the Problem Gambling Foundation of New Zealand (PGF) and the Centre for Gambling Studies, University of Auckland (CGS) conducted the Long Term Clients Project.

Dr Lynley McMillan

Dr Lynley McMillan is a clinician at PGF and a researcher at CGS. She has recently completed her Ph.D., holds a Masters degree (psychology) and is currently completing her post-graduate diploma (clinical psychology). She has published several papers and a book chapter on workaholism, spoken at local and overseas conferences, and is active within the Institute of Clinical Psychologists. Lynley previously worked as a business consultant and held directorships of two small financial services companies, in addition to community roles including drug, alcohol and domestic violence work. She aims to maintain research alongside clinical practice, with a focus on gambling treatment outcomes, workaholism, and women's diverse experiences of gambling recovery. Lynley was the project co-ordinator, provided substantial development and monitoring services for the project, and took responsibility for ensuring relevant access to the database as well as for evaluation and reporting of the project.

Dr Maria Bellringer

Dr Maria Bellringer is a Research Fellow at PGF and CGS. She emigrated from England at the end of 2001 and has a Ph.D. in biochemistry followed by 13 years as a toxicologist with managerial training and project management, evaluation and reporting experience. She has an Advanced Certificate in Person-Centred Counselling and has worked as a volunteer counsellor for young people. She also has a Post-Graduate Certificate in Health Sciences (Mental Health) obtained from the University of Auckland. Maria provided development, monitoring and support services for the project, including reporting of the project, as required.

Dr Samson Tse

Dr Samson Tse is Director of Asian Services at PGF and Director of Asian Research at CGS. He moved from Hong Kong to New Zealand in 1989, and subsequently worked in forensic psychiatry as an occupational therapist and taught in a bachelor programme of occupational therapy. His master's degree is in psychology and he completed his doctoral studies within the department of psychological medicine on the topic of employment and bipolar disorders. One of his research interests is Asian gambling including prevalence and meaningful diagnosis of gambling, best practice of specialised services for Asians with gambling problems, gambling among overseas Asian students and the impact of gambling on families, especially children. Samson provided development, monitoring and support services for the project, including evaluation of the project, as required.

Dr Robert Brown

Dr Robert Brown is Deputy Chairman of PGF and is Director of Policy Studies and Forensic Research at CGS. He is an Honorary Research Fellow within the Discipline of Applied Behavioural Science at the University of Auckland, and a member of the Alcoholic Liquor Advisory Council. He has a Diploma in Clinical Psychology and has worked as a clinical psychologist in psychiatric hospitals, prisons and private practice. He completed his Ph.D. in stimulus control of drinking behaviour and established the first educational courses in responsible drinking in New Zealand. He has a Master of Public Policy from Victoria University of Wellington and has provided policy advice to several New Zealand Government Departments including the Ministry of Justice, the Department of Justice and the Department for Courts. Robert provided some monitoring and support services for the project, including evaluation of the project, as required.

Dr Peter Adams

Dr Peter Adams is Centre Director for CGS. He has practised as a clinical psychologist in Auckland for over 13 years, during which time he developed specialist expertise in the area of addictive behaviour. His interest in gambling started in 1995 when he undertook the role of clinical consultant to the Compulsive Gambling Society (now Problem Gambling Foundation of New Zealand, since May 2001). From 1997 to 2002, he was chairperson of its Board of Directors. More recently, he has focused on developing a range of research projects into problem gambling and in supporting the development of professional education projects. He is currently employed as Head of the Discipline of Applied Behavioural Science at the Auckland University Faculty of Medicine and Health Sciences. He co-ordinates addiction teaching within the undergraduate medical programme and has developed a post-graduate programme for specialist addiction workers. Peter had overall responsibility for the successful implementation of the project.

General comment

There was a substantial delay in the commencement of the project due to the initial project leader resigning from PGF towards the end of the first quarter of 2002. Unfortunately, it appeared that no work had been commenced on the project prior to that staff member's departure. Subsequently, a project team was assigned to this project (see previous section), and it was recognised that analyses of client data from within the PGF client database were not possible without additional software support. Therefore, the project team contacted Grant Paton-Simpson who approached the Purchaser for funding to design an adjunctive query programme for the database and to transfer the data into a statistical software package (SPSS) so that analyses of client profiles were possible. The process took a few months to complete, as there were several refinements required before the data were accessible in a manner that enabled the relevant analyses to be performed.

Methods

Participants

The project comprised three groups of participants. These were: clients, informed experts and experienced therapists. Each is described in detail below/overleaf:

Clients

Only clients' descriptive data that were held on the PGF database were accessed (i.e., client files were not accessed due to ethical constraints). These data covered a 6-year period between 1996 (when the database was first computerised) and clients whose data were entered up until June 2001. There were three groups: Long-Term (LT) clients, Re-Admit or recycling (RA) clients and Brief Therapy (BT) clients.

Long-term clients. These participants were defined as those clients who remained in therapy longer than 12 consecutive months, where they had no inter-therapy gaps that were longer than 90 days. Thus, they had experienced a continuous 12-month episode of therapy. Due to some conceptual overlap, where some clients had also re-presented into therapy, they were categorised into LT as a priority. This strategy was adopted for two reasons: (a) there were insufficient numbers of LT clients without this overlapping group and (b) these were still legitimate long-term clients who had experienced at least one continuous 12-month episode of therapy. In total there were 61 clients in this group, 18 of whom had also experienced more than one episode of therapy.

Re-Admit clients. These clients were defined as those who had previously received treatment and been discharged, but had subsequently returned to the same provider for further treatment. Thus, they had experienced more than one episode of therapy, where there had been a gap between sessions of 90 days or more. In total, there were 515 clients in this group, none of whom had experienced a long-term episode (continuous 12-months) of therapy.

Brief Therapy clients. These clients were defined as those who presented for only one episode of treatment, where the total number of sessions was between 2-5 and where no two sessions occurred more than 90 days apart. Thus, they had experienced at least a full assessment and some limited therapy, and had not returned to the service, either because treatment was complete, or they had missed further appointments and their files had been closed. In total there were 1235 of these clients, none of whom had experienced repeated episodes (i.e., were not classifiable as re-admit clients) or long-term therapy.

Informed Experts

Four members of the Centre for Gambling Studies/Problem Gambling Foundation research team acted as informed experts in visually inspecting the raw data for trends, patterns and important relationships that may not have been made apparent by statistical analyses. The group comprised one female and three males, all of whom held Ph.D.s and had previous experience in health-related research.

Experienced Therapists

Four experienced therapists from the Problem Gambling Foundation gave feedback on their perceptions about the needs and unique attributes of long-term clients to add a qualitative dimension to the data analysis. This also occurred because directly approaching clients themselves would have raised ethical difficulties and delayed outcomes of the project further.

The group comprised 2 females and 2 males, who had a combined total of 21 years of experience in working with gambling. Together the group estimated that they had provided therapy for approximately 1072 people with gambling problems. The group were relatively highly qualified; together they held 18 tertiary qualifications (3 post-graduate diplomas [community psychology, clinical psychology], 3 masters degrees, 3 diplomas, 4 nursing qualifications and 5 polytechnic level certificates. They estimated an average of 6.25 clients each who *currently* met the criteria for being long-term clients and estimated that over their full gambling counselling careers they had delivered therapy to 84 long-term clients in total.

Measures

Four groups of variables were identified and analysed for the present project: (a) Demographics, (b) Gambling, (c) Therapeutic Variables, (d) Psychometric Variables. It is important to emphasise that each of these measures was administered when the client *first* presented to therapy (i.e., in the first or second session) and, therefore, scores may have changed over time as therapy sessions continued and clients' life circumstances changed.

There were three different demographics variables included in the analysis, namely:

- age at first presentation,
- gender,
- ethnicity.

There were five different measures of gambling behaviour that were used:

- Primary Mode of Gambling. This is the client's self-nominated predominant type gambling activity (e.g., pokies, racing). It is important to note that this question is broadly worded (e.g., it does not direct respondents to use parameters, such as financial consequences or emotional implications to determine which gambling mode is dominant for them).

- South Oaks Gambling Screen. This is a 20-item self-report measure that uses a cut-off point of 5 to indicate problematic gambling and assesses the impact of gambling on relationships, finances, illegal activities and other lifestyle variables.

- DSM-IV. The Diagnostic and Statistical Manual of Mental Disorders; American Psychiatric Association (APA, 1994) screen was also used to provide an independent rating of clients' gambling. This screen requires five (of a potential 10) symptoms to be present to indicate pathological gambling.

- Total Dollars Lost. A financial measure of money lost gambling (in the 4 weeks preceding assessment) was also used to assess the degree of gambling in fiscal terms.

Finally, a psychological measure, the Control Over Gambling Scale was used to assess the degree of control the client felt they had over gambling in the previous four weeks. This used a four-point Likert scale anchored at mostly in control and mostly out of control.

There were four therapy-related variables used in the analysis. These were:

First therapist (i.e., the clinician who conducted the first assessment when the client presented to the agency).

Last therapist (the most recent therapist to have contact with the client).

Main therapist (the therapist with whom the client had the majority of contact across all sessions and episodes of treatment).

The Clinic variable tapped the geographical location of the clinic at which the client first presented.

There were six psychometric variables used in the present analysis.

A measure based on the Beck Depression Inventory (BDI) was used to indicate level of depression reported by clients at their first presentation. It is important to note that this measure was an adapted and shortened form of the original BDI and has no prior validation data. The scale had 13 items and potential range of 0 (no depression) to 39 (severe depression).

A 3-item measure of Suicidality was used to indicate the level of suicidal risk, where potential scores ranged from 0 (no ideation over the last 12 months) to 3 (ideation, plan and/or attempt over the last 12 months).

Two measures of anxiety were used: the Anxiety-State measure, which tapped the current levels of anxiety reported *during* the first interview and the Anxiety-Trait measure, which tapped general levels of anxiety reported by the person. Each of these measures had been shortened without prior validation before use and contained 8 items each, with a potential range for each scale of 0 (no anxiety) to 32 (extreme anxiety).

Substance use was assessed across two measures: the AUDIT (Alcohol usage) measure, which is a 10-item scale where scores range from 0 (no alcohol use) to 40 (severe problems associated with alcohol use) and a measure of Smoking, which is a 3-item scale where 0 indicates non-smoking and 3 indicates smoking more than two packets per day.

There were four questions asked of experienced therapists in a telephone interview:

- (a) How many years have you been working with gambling problems?
- (b) What qualifications do you have?
- (c) How many of your clients have remained in therapy longer than 12 months?
- (d) What do you notice that is different about clients remaining in therapy longer than 12 months than those who come for fewer sessions?

Procedure

The project design involved two components: quantitative analyses of existing client data and qualitative data analysis (visual inspection by independent experts and interviews with experienced therapists). Thus the project was conducted in four phases.

The first phase involved preparation of the data and computer software. The data pertaining to clients were gathered in electronic form from the existing PGF database (i.e., no clients were personally approached, due to ethical constraints). The project procedure required substantial work to convert three geographically disparate databases (Auckland, Wellington, Christchurch) into one main national dataset on Microsoft Access[®], then to convert that into an analytic programme on SPSS[®]. For the purposes of the present analysis, families of gamblers and sessions where therapy was delivered to a group (as opposed to an individual) were excluded from the data set. Clients had previously given written consent for summary data to be used for research purposes, on the understanding that their identity would remain confidential.

The second phase of the project involved defining the three client groups (LT, RA and BT), then describing, comparing and evaluating the demographics and psychometric data of these three groups. At that stage, the project co-ordinator met with Professor Alun Jackson at the University of Melbourne to discuss the latter's long-term clients research project and the methods they had used to prepare their data for analysis (note: this trip was paid for personally by the project co-ordinator, not by PGF).

The third phase involved data analysis. Firstly the quantitative data were analysed using SPSS to ascertain differences between the groups. Secondly, as very few of the differences attained statistical significance, data were qualitatively analysed using visual inspection of raw data by the focus group of informed experts. Instructions to this group were "Please scan these raw data for trends, patterns, similarities and differences between client groups." The informed experts then met as a group to discuss their feedback, with the project co-ordinator present as a data recorder. Thirdly, members of the experienced therapist group were interviewed by telephone (since those selected were in disparate geographical locations) with their responses recorded in (live time) note format, then later typed into summary format by the project co-ordinator.

Results

The results are presented in seven parts: the first four parts comprise quantitative analyses (demographics, gambling behaviour, therapy variables, psychological variables) and the second two parts comprise qualitative analyses (informed expert focus group and experienced therapists feedback). The final part details the pilot programme developed to support all clients, including long-term clients.

Part A. Demographic Variables

Chi square analyses indicated that the three groups differed significantly on two of the demographics variables: ethnicity ($\chi^2 = 23.58$, $df = 2$, $p = .00$) and age ($\chi^2 = 6.95$, $df = 2$, $p = .03$). They did not differ on gender ($p = .39$). *Post hoc* tests used the Tamhane's (T2) statistic, which calculates conservative pair-wise comparisons based on a *t* test. This is recommended practice when the variances are unequal (SPSS, 2001). Tests indicated that the LT client group was significantly older ($M = 43$ years) than the BT group ($M = 38$ years, $T2 = 4.88$, $p = .02$), and significantly older than the RA group ($M = 36$ years, $T2 = 6.98$, $p = .00$). *Post hoc* tests indicated that none of the differences in ethnicity gained statistical significance (the difference between LT and BT had a *p*-value of .07, but all other comparisons were even further above the $p < .05$ threshold). Comparative data presented in Table 1 below demonstrate that the majority of LT clients group were NZ Europeans (75%), male (60%) and in their mid 40's ($M = 43$ years). However, it is vital to reiterate that these characteristics were not significantly different from those of the RA or BT client groups.

Table 1. Comparison of Demographic Variables Between the Three Client Groups

Demographic Variable	% of LT (N= 61)	% of RA (N= 515)	% of BT (N= 1235)
Ethnicity			
Asian	5	3	4
NZ European	75	60	57
Maori	8	18	18
Pacific Island	2	3	5
Gender			
Male	60	65	62
Female	39	35	38
Age	43 (years)	36 (years)	38 (years)

Note. Some of the figures do not add up to 100% as some clients chose not to disclose their ethnicity/gender.

Part B. Gambling Behaviour

Chi square analyses indicated that the three groups did not differ significantly on any of the gambling variables. As outlined in Table 2 below, LT clients did tend to report more casino machines as their dominant gambling mode (but this did not reach significance), but all other indicators were similar across all three groups. *P*-values for each of these analyses, respectively, were Primary Mode (.78), DSM-IV (.71), SOGS (.99), Total Dollars Lost (.50) and Control over Gambling (.98). Given the broad range of Total Dollars lost and the meaningless nature of presenting these data without a comparative figure for each individual's net income so that percentage of

net income wagered could be calculated, these figures are not presented in the table below. However, statistical analyses indicated that there were no significant differences among the groups with respect to Total Dollars Lost ($\chi^2 = 1.37$, $df = 2$, $p = .50$).

Table 2. Comparison of Gambling Variables Between the Three Client Groups

Gambling Variable	% of LT (N = 61)	% of RA (N = 515)	% of BT (N = 1235)
Gambling Mode			
Casino Machines	18	9	8
Non-casino Pokies	48	55	56
Sports	7	11	8
Casino Tables	3	3	5
DSM-IV			
0-4	20	18	17
5-8	47	43	53
9-10	33	39	30
SOGS			
0-4	0	4	5
5-14	88	86	85
15-20	12	10	10
Control: Gambling			
1-2	19	22	19
3-4	81	78	81

Note. Some of the figures do not add up to 100% as this information was not collected from all clients due to time/pragmatic constraints.

In interpreting the data it is important to note that approximately one half of the clients did not have data entered for these measures (specifically, while 100% of LT clients had Gambling Mode scores, but DSM-IV = 25%, SOGS = 55%, and Control = 51%). This trend in substantial amounts of missing data was similar for the other two groups, although Re-Admit clients had slightly higher response rates (they had of course experienced more than one assessment as they had presented for therapy a second or third time).

Part C. Therapy Variables

Chi square analyses indicated that the three groups only differed significantly on only one therapeutic variable: clinic where seen ($\chi^2 = 8.80$, $df = 2$, $p = .01$). The p-values for each of the remaining analyses respectively, were First Therapist (.89), Last Therapist (.18), Main therapist (.89). *Post hoc* tests of clinic location indicated LT clients did not differ significantly from BT ($p = .41$) or from RA ($p = .95$). In fact only BT and RA clients differed from each other ($T2 = 2.21$, $p = .04$). However, it must be noted that this analysis is compromised and even arguably *confounded* by the fact that there was a total of 49 clinics in the analysis and only 61 long-term clients. In addition, many of these clinics were staffed part-time in geographically remote areas (and, therefore, likely to see different types of clients than city clinics) and some

had closed, amalgamated or opened during the 6-year measurement time captured by the database.

Part D. Psychological Variables

Chi square analyses indicated that the three groups were similar across all six psychological measures (see Table 3 below). The p-values for each of these analyses respectively, were Depression (.29), Suicide (.56), State Anxiety (.58), Trait Anxiety (.96), Alcohol use (.36) and Smoking (.40). Thus, LT, RA and BT clients reported similar levels of mental health when they first presented. However, in interpreting these data it is important to note that approximately one third-to-half of the clients did not have data entered for these measures (specifically, of the LT clients, those that had BDI scores were 47%, Suicide = 44%, STAI-S = 43%, STAI-T = 43%, AUDIT = 41%, Smoking = 47%). This trend in substantial amounts of missing data was similar for the other two groups, although Re-Admit clients had slightly higher response rates (they had of course experienced more than one assessment as they had presented for therapy a second or third time). Taking this qualification into consideration, the data indicate that clients in *all three groups* had at least mild depression, some suicidal ideation, mild-moderate anxiety, mild-moderate current stress levels and smoked at least one packet of cigarettes per day.

Table 3. Comparison of Psychological Variables Between the Three Client Groups

Psychological Variable	% of LT (N = 61)	% of RA (N = 515)	% of BT (N = 1235)
Depression (BDI)			
Mild (11-19)	48	34	33
Moderate (20-29)	10	10	9
Severe (30-39)	3	3	2
Suicide	.67	.52	.51
Anxiety (State)			
Mean score	18.5	17.1	17.2
Anxiety (Trait)			
Mean score	19.1	18.7	18.7
Alcohol (AUDIT)			
Mean score	5.2	7.6	7.8
Smoking			
Mean score	1.38	1.12	1.13

Note. Some of the figures do not add up to 100% as this information was not collected from all clients due to time/pragmatic constraints.

Part E. Informed Experts

Feedback from the visual inspection of the data indicated that, in comparison to the New Zealand National Gambling Statistics (Paton-Simpson, Hannifin & Gruys, 2001), there were more LT clients aged over 40 than in the general therapeutic population. Specifically, as shown in Table 4 below, the number of clients in 5-year age bands aged over 40 was at times almost double the base rate of the general population.

Table 4. Comparison of Gambling Variables Between the Three Client Groups

Age	National Gambling Statistics (2001)	LT clients %
<20	2.8	0
20-24	9.9	2
25-29	15.1	6
30-34	17.3	12
35-39	16.8	12
40-44	14.0	22
45-49	10.1	20
50-54	6.4	8
55-59	4.0	12
60-64	1.9	6
>65	1.7	0

The informed experts focus group suggested that over-representation of European and Asian clients in the LT group compared to the National Gambling Data Set might reflect the fact the service provided by PGF is largely staffed by NZ Europeans and has a specialist Asian service. It was also observed that some of the data for Gambling Mode were difficult to analyse because of an apparent data input error (which was inherent in the database before the project began) which meant that 18% of LT clients gambled in a mode entered as '1' which did not have a text descriptor and could not be traced back. Thus, it appears that this may have arisen from a clerical data entry error in one of the three subsets that was merged into the national database used for the present analysis. Unfortunately, this error was unable to be traced and corrected in the context and time constraints of this project.

The focus group stressed it is imperative to reiterate that the present data were gathered at the *beginning* of each clients' therapy and not updated as therapy progressed (some clients had repeat measures but the numbers were so small that they precluded a robust statistical analysis). It was also observed that many other important aspects of information (such as a list of presenting problems) were not gathered, which may have precluded a more meaningful analysis. Finally, it was noted that there was a conceptual overlap between the LT and RA clients groups, where the LT group contained some RA clients for the reasons and rationale clearly outlined in the methods section.

Part F. Experienced Clinicians

The clinicians were asked “What do you notice that is different about clients remaining in therapy longer than 12 months from those who come for fewer sessions?” They identified 5 key areas in which long-term clients differed from others. These areas were (a) social support, (b) age, (c) pathology, (d) goals, and (e) quality of the therapeutic relationship. As outlined in Table 5, clinicians’ responses confirmed the age dynamic (as evidenced in the electronic data) but added additional explanations such as low social support and aiming for abstinence (rather than merely reducing gambling) which may lengthen time spent in therapy. However, they hypothesised that co-morbid pathology was more evident in long-term clients - a hypothesis that was not supported by quantitative analyses of the electronic data.

Table 5. Feedback from Experienced Clinicians

Key Theme	Clinicians' statements
Social Support	Low social support - often single, shift workers, part-time childcare More likely to have relationship difficulties More likely to have childhood issues Less community involvement outside the addiction.
Age	Older - middle aged or, alternatively, very young (20-25) Similar demographics to others except tend to be older than 40 years
Pathology	Other existing disorders More likely to be Dual Diagnosis Needy, dependent traits
Goals	Maintenance programme strengthened - less relapse My hypothesis is less relapse Client has awareness that they might relapse Goal to remain gamble-free Want to achieve 6-months of gamble-free status but experience relapses before and during therapy
Therapeutic relationship	Therapeutic relationship a lot stronger Attend intermittently - once per month for maintenance, i.e. weaning process from weekly to fortnightly to monthly to 6 weekly Clients report feeling more supported Tend to come monthly Attend Gamblers Anonymous group

Part G. Workshop to Discuss Pilot Programme

A workshop was held with senior staff of PGF to de-brief the research process, make final comments on the results and conceptualise the pilot programme. Specifics of this programme are outlined in detail in the PGF Funding Request to PGC for the 2003/2004 year. The team discussed two distinct approaches to conceptualising therapy, both of which are presented overleaf (see Figures 1 and 2).

Specifically, the first model comprises a time-limited approach to delivering therapy, in which clients and clinicians work in ‘capsules’ of six sessions of therapy. Most importantly, this model represents two distinct changes from existing practise. Firstly, it introduces the concept of a regular review session, to keep clients and clinicians focused on achieving and monitoring behavioural change. Secondly, it introduces the concept of ‘capsules’ of time, in which therapy is delivered in chunks of time (e.g., 6 sessions) as opposed to taking an open-ended approach. Team members reported that this model appears to have been used successfully with (a) youth counselling in Britain, (b) couples counselling in New Zealand, and (c) the alcohol and drug services in New Zealand. However, the team were emphatic that the six-capsule model, if considered in future research, must include:

- Family members
- Capacity to involve social networks, social supports
- Diverse cultural groups (relevancy/suitability to diverse cultural groups needs to be assessed)
- The capacity for therapy to be delivered both individually and in groups
- Close links with public health perspectives

In addition, there was substantial discussion around the possible limitations of adopting a time-limited model and the implications this may have for clients and the philosophical nature in which treatments for gambling problems are delivered. In particular, the disadvantages were noted to include:

- A possible exclusion of psychodynamic based approaches (that take more time and may be compromised from the outset by introducing the concept of time-limited therapy)
- An implicit privileging of six-sessions over briefer, one-session interventions that may become incorrectly viewed as a treatment failure (meaning that people who are culturally resourced to engage in and persist with therapy may be advantaged by the model, at the expense of those who cannot or do not engage for shorter periods).

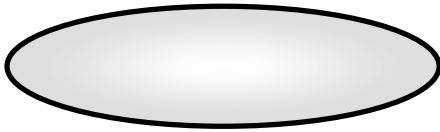
Thus, the team agreed that whilst the six-capsule model held some potential advantages for the key stakeholders (clients, clinicians, funders), it also presented some disadvantages and, therefore, should be subjected to rigorous trial against other models (such as one-session interventions and more diverse open-ended models) before it is adopted or applied to the current practises of PGF.

Figure 1: Treatment Protocol for Pilot Intervention Programme



- Post an information package to clients
- Request pre-emptive consent (i.e., before assessment) to be interviewed at the completion of treatment for the long-term research project
- Ethnically match (where possible) clients and therapists

- Inform clients that therapy is delivered in 'bundles' of six sessions that comprise one assessment, four therapy sessions and one review.



Gambling severity

- SOGS/CoG /TDL (including % net income wagered)/DSM

Associated presenting problems

- List in order or priority to client

Motivation

- Current 'stage of change' (e.g. using Gambling Readiness to Change Questionnaire [Lostutter, Larimer & Takushi, 2002])

Risk

- Continue to use the validated, full version of the BDI

Transitional stressors

- Relationship status/Financial status/Mid life crisis

Resiliency based factors

- Social Skills/Coping Skills/Social Supports (including local and overseas/stability in relation to employment, income, accommodation, religion etc)



Mode

- Brief, solution-focused interventions

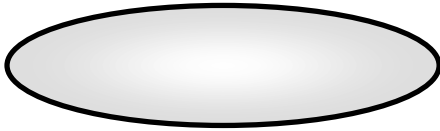
Aim

- Ensure that practical help is offered very early on *whilst* the client is being engaged and socialised into the therapeutic relationship
- Continue monitoring movement toward goals as therapy progresses
- Increase social support systems (e.g., referrals to group, family connections, social groups)

Method

- Resilience-based questions
- Focus on existing skills and abilities and leverage these to create change
- Utilise motivational interviewing styles
- Practical 'homework' tasks between sessions





Measures

- BDI (risk)/SOGS (treatment efficacy)

Purpose

- Provide an explicit rationale for one of three actions
 - a) Continue 6 more sessions (e.g. for a further four therapy and one review session)
 - b) Refer for underlying issues
 - c) Discharge

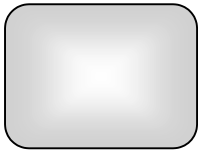
The second concept discussed by the group was a comparative trial of a one-session model of intervention (the details of how problems would be triaged, screened, assessed and prioritised, and how this would interface with a public health perspective needs further clarification). However, it was emphasised that this is an imperative model to test against the six-session capsule model.

The third model discussed by the team comprised an open-ended approach to therapy in which an eclectic array of options are available to the client upon first presentation. These options are outlined in Figure 2 overleaf. Specifically, the model comprises an open-ended approach to delivering therapy in which clients and clinicians *inductively* determine the clients' needs as therapy progresses. This model represents a close alliance to existing practice. Firstly, it allows therapy to be tailored to the clinician's dominant model of practice. Secondly, it allows for other models of therapy to be utilised, such as psychotherapy, which might not fit comfortably into time limited sessions. Finally, it is arguable that this model potentially caters for more diverse cultures than time limited therapy. Team members reported that this model is currently being developed in the drug and alcohol field. The team were emphatic that the model should be considered in future research and include:

- Regular reviews of progress

However, the points at which these reviews are inserted into the therapeutic process were widely debated, ranging from at the end of every session, to on an *ad-hoc* basis as clinicians and clients judge appropriate. The team agreed that further debate about this would be essential at the commencement and research design phase of any future project. The general consensus was that this model offers important advantages and is deserving of substantial further testing.

Figure 2: Inductive model of therapy delivery



**6
sessions**

**Psychotherapy
(Longer term)**

Multiple
ep
(

Multiple
episodes
(Re Admits)

**Multiple
episodes
(Re Admits)**

**'Belligerent'
groups**

Discussion

Comprehensive statistical analyses indicated that the only significant differences between long-term clients and those who were re-admitted or attended only 2-5 sessions, occurred in the age and clinic location variables. Importantly, clinic location, while significant, was potentially confounded by the number of variables tested (49 clinics) compared to the number of LT clients (61). Furthermore, while ethnicity was different in the preliminary analysis, the difference was not retained in *post hoc* tests. Statistically, therefore, there was not a clear differentiating factor between various client groups that was apparent upon first presentation. This finding was somewhat unexpected, although it does concur with (the limited body of) international research. Accordingly, a more detailed discussion of the present findings is warranted, particularly regarding limitations of this project and the possible reasons for the age difference. These possibilities, some corresponding hypotheses and a series of recommendations for management applications are outlined below and on subsequent pages.

Limitations

The present findings are subject to several limitations and qualifications. Firstly, particularly regarding the Gambling and Psychometric measures, there was a substantial amount of data missing (up to 50% in many cases). This of course would have affected the analysis and suggests that replication research is imperative at some point to establish the stability and reliability of these findings. Furthermore, it is important to iterate that the measures were taken at different points, in different locations by different clinicians and, therefore, are highly unlikely to have been administered in a completely standardised fashion. Additionally, the nature and type of gambling has changed substantially over the last 6 years (e.g., the exponential increase of pokies gambling as a primary medium). There are also psychometric difficulties with some of the measures (in particular the BDI and STAI, which had been abbreviated without validation testing) and other measures (such as the suicide and smoking measures) which had not been subjected to construct validity. For instance, the suicide question specifies that a person must have thought about suicide "because of gambling", which may have excluded responses arising from financial stress, relationship break-up, depression, etc, all of which are known to relate significantly to gambling. Thus, the data pertaining to these measures must be taken as *heuristic* as opposed to definitive.

Further qualifications include the criteria used to categorise the groups, and the retention of RA clients within the LT group to maintain more equivalent numbers for statistical purposes. Finally, the time at which data were collected may also have impacted upon the findings. For instance, while data collected in the first session were not predictive of LT status, perhaps data collected later, or different data may have been. Specifically, the data do not show whether LT clients were still gambling, at what point their gambling ceased or diminished and whether they aimed for abstinence or controlled gambling. Despite this, the data set was of a relatively substantial size, and as Professor Alun Jackson advised during the Australian visit, even having a data set available for analysis is a rare thing in international terms, as issues of competition between treatment providers and duplication of information contaminate many data sets.

Therefore, this project fulfils a vital role in contributing to the scant body of knowledge about differing groups of gamblers but had to be conducted within some limiting constraints (proposals for addressing these constraints are outlined in an upcoming section). However, given these qualifications, the data indicated that LT clients tend to be male, NZ Europeans, aged in their mid 40's, and have at least mild depression, mild-moderate anxiety (i.e., STAI-T), mild-moderate stress levels (i.e., STAI-T), smoke at least one packet of cigarettes per day and gamble on non-casino Pokies machines. However, it is *imperative* to reiterate that these characteristics are not predictive of long-term client status, and do not differ significantly from clients who remain in therapy for shorter periods. All groups had similar demographics.

Age Differences

It is of particular interest that the one variable the client groups reliably differed on was age at first presentation. The average LT client (43 years) was 5 years older than RA clients and 6 years older than BT clients. One obvious potential explanation is that they had longer exposure to gambling stimuli and, therefore, the problem may have been more intractable. However, one would have expected to find this in at least one of the five different gambling indicator measures used. Therefore, it is prudent to consider systemic factors in explaining this result.

Specifically, in terms of life cycle, 43 is an age at which teenage children are leaving/have left home and a couple's relationship returns to a dyad, which is known to accentuate any underlying marital disharmony. Furthermore, as Erikson's developmental theory predicts, forties are also a time of midlife crisis for many people. This is known to be a time in which individuals contemplate their contribution to life, come to terms with the concept that some of their dreams may never come true, and face their impending physical decline, mortality and possible onset of illness (such as experiencing or hearing about friends who have cancer). All these factors act as stressors, and gambling is known to be particularly sensitive to stress.

One hypothesis is that the therapy being delivered to these older clients is in fact oriented around stress management skills. However, this would be expected across all age groups, as stress is known to relate strongly with gambling intensity and relapse occurrence across all modes of gambling and all ages. A second, and more credible hypothesis that arises is that LT clients are seeking (and perhaps receiving) therapy for relationship crises that are being expressed via gambling. The final, and equally plausible hypothesis that arises is that LT clients are seeking (and perhaps receiving) therapy for mid-life crises that are being expressed via gambling. Thus, the age-related differences present important strategic hypotheses that require further empirical exploration and have a critical implication for the nature and style of therapy delivered by clinicians.

Recommendation and Management Implications

There are several management implications that arise from the present analyses. These can be grouped broadly into: (a) client issues, (b) assessment protocols, (c) therapy protocols, (d) workforce issues, and (e) research issues. Each of the recommendations arising in these categories is briefly addressed overleaf:

Client Issues

- Issues for further consideration include the proportionately low numbers of Maori who are in the LT client group (census data indicate there are 18% Maori in the general population (as reflected in the RA and BT groups) but only 8% in the LT client group. This could reflect either a positive trend (e.g., therapy is effective early for Maori) or a negative trend (lack of cultural matching between clients and therapists, or perhaps style of therapy delivered, may mean that Maori do not perceive therapy as useful).

Assessment protocols

- The factor that therapists do not complete forms fully warrants further exploration (e.g., this may be because the therapists do not have time, disagree with the assessment ethos, find the forms non-user friendly, non-culturally appropriate, etc). Thus, the issues of what psychometric assessment should comprise needs to be written into current policy and expressed through clinical guidelines and training programmes.
- There are also potential issues of whether gambling alone should be assessed or whether a list of other associated presenting problems should be gathered at the time of assessment. This latter option would enable a more fine grained analysis of what factors influence time spent in therapy, what therapist skills are required, whether the majority of clients present with issues within our funding brief, when to refer and most importantly, focus therapists on client goals and outcomes. Ideally, if this information could be captured within the database, it would allow for more precise resource allocation within PGF.
- It is also recommended, especially given that the Prochaska and DiClemente model forms the fundamental ethos of current clinical services (see PGF policy and procedures manual) that therapists systematically assess current 'stage of change' in the intake interviews and report this to PGF for entering in the database. This would facilitate more precise prediction of long-term clients' needs and provide vital information in client planning.
- The present data suggest we cannot justify continued use of the STAI (especially when a non-validated version has been used), Substance Use (there is no research-related rationale for collecting these data, which on an ethical basis means continued gathering without clinical need is unjustified) and Control over Gambling (this scale does not appear to have validation data).
- However, to ensure safe practice and risk management, we should definitely continue to use the validated and full version of the BDI (it predicts suicide, of which ideation is present in 80% of gambling clients, screens risk, and has multitudinous validation data across multiple cultures), plus the DSM measure and mode of gambling measure. It is also recommended that when collecting Total Dollars Lost data, the *percentage of net income wagered* is also calculated to give an accurate perception of the actual cost to the client.
- It is recommended that we consider adding two measures: Transitional stressors (e.g., relationship status, financial status) and Resiliency based factors (social skills, coping skills). Further research to design and trial these measures would be particularly helpful, as both stress management and coping skills are known to closely predict recovery from gambling.
- Finally, it is recommended that where psychometric data are gathered, that responses to ALL items are entered into the database (rather than summary scores) so subscales and specific response styles can be analysed (presently, the omission of this practice means that much of the richness of the data is lost).

Therapy Protocols

- This project raises interesting questions for our therapeutic practices. It is feasible to hypothesise for instance, that therapy is being provided for mid-life crises or relationship issues. If this is the case, there are also strategic issues to consider, such as whether we should refer such issues on to specialist providers in these fields, or develop competitive advantage and specialise in delivering these services as a point of difference ourselves.
- It also appears important to continue monitoring movement toward goals as therapy progresses. For instance it is feasible to hypothesise that some of these long-term clients used strategies of transitioning from abstinence through to controlled gambling during their therapy and this increased the need for longer term therapy.
- Outcome measure of treatment efficacy would clearly be of substantial use here - the reasons that a broader use of follow-up measures is not used warrant further consideration.
- The current practice of continuing to see clients on a long-term basis merits reconsideration. It is clear that we cannot justify continuing LT therapy if there are no clear predictive factors (especially such as levels of depression, suicidality and severity of SOGS/DSM-IV) for length of therapy. Instead, perhaps if clients were given a clear expectation upon entering the services that therapists were required to justify either: (a) reasons for continuing to see a client, (b) make a referral to have peripheral issues addressed, or (c) assuming treatment is complete, close the client after every sixth session, then perhaps all parties would have an increased focus on outcomes?
- Finally, the utilisation of brief, solution-focused interventions appears wise, specifically as 50% of clients present 1-3 times, meaning we have an ethical responsibility to ensure that practical help is offered very early on *while* the client is being engaged and socialised into the therapeutic relationship.
- The new trial (see Schedule 7 of the 2002/2003 contract) which includes self-monitoring with diaries is particularly promising in that regard. Self-monitoring is empirically shown to instigate and accentuate behavioural change. These changes are also known to last for longer and generalise further than non-self monitoring interventions (Martin & Pear, 1992).

Therefore, it is suggested that unless there are clear indications for a different case management regime, assessment and therapy comprise a 6-session package that includes one assessment session, four therapy sessions and one review session, where the BDI and SOGS are re-administered and an explicit rationale is provided for one of three actions:

- a) Continuing more than 6 sessions (eg for a further four therapy and one review session)
- b) Referral on for underlying issues
- c) Discharge

The use of regular reviews and justification for ongoing therapy has been informally trialed by psychologists in the PGF Tauranga Clinic with encouraging results. Specifically, client's anecdotal reports suggest they find it beneficial to focus on outcomes and have regular reviews. The strategy also appears to socialise clients (and therapists) into the concept that therapy is a vehicle for *change* and consequently increase operational efficiency with follow-on service quality.

Workforce issues

- The present findings give rise to several management implications, for instance:
 - Should we train up the workforce with a sub-specialty that includes mid-life crisis therapy skills and stress inoculation training?
 - Should PGF train therapists to refer on peripheral issues?
 - Should PGF adopt a triage process?
- Implementation of the therapy recommendations would also necessitate a paradigm shift to brief solution-focused work. While this is in line with health promotion, resiliency based models of practice, it may take specialist training to implement across the entire service.
- These recommendations also have implications for PGF and its therapists in terms of training, workforce competency and recruitment policies.
- There is a clear need to (urgently) integrate the three databases into one national client database.

Research Issues

- Further research to test the hypothesis about mid-life crisis is imperative because if this hypothesis holds true, our services will need to be adapted accordingly.
- Similarly, empirical testing of the hypothesis about relationships is also warranted.
- Further research in which clients give pre-emptive consent (i.e., before assessment) to be interviewed would be particularly helpful in elucidating the difference between LT and other client groups (this was unable to be conducted in this project as no ethical consent had been given by the clients to be approached for research purposes).
- Urgently consider seeking research funding to design a psychometrically validated assessment for associated presenting problems, transitional life stressors and resiliency-based skills.
- Investigate the impact of percentage of net income gambled on the clients' pathology and severity of presentation (i.e., align with impact on Maslow's hierarchy of need). Clients with low income may be substantially more impacted on by losing \$1000 in the 4 weeks prior to presentation than high income clients who lose \$5000 in the week prior to presentation.
- Address the reasons for the substantial amount of data missing from the database (up to 50% in many cases) and conduct replication research to establish the stability and reliability of these findings.
- Conduct research that uses similar measures, taken in a standardised manner, by clinicians trained to a standardised criterion at comparative locations to eliminate confounding variables.

Summary

This project has generated three alternate models that are strongly deserving of further empirical testing. These are (a) the one-session intervention model, (b) the six-session capsule model and (c) the inductive, open-ended model (including a regular review component). The project team advocates for the continued testing of these models within carefully defined, ethically supported scientific parameters in future parcels of research undertaken by the Centre for Gambling Studies on behalf of the Problem Gambling Foundation.

Overall, therefore, the potential management applications from this project highlight the important role CGS can play in adding to the competitive advantage of PGF through well-designed, applied research that leads to evidentially-based and improved clinical procedures. This opportunity to objectively stand back and ask meaningful questions undoubtedly fulfils a crucial role in completing the feedback loop between science, business and clinical practice in oiling the wheels of efficiency and rigour.

References

- American Psychiatric Association (APA), (1994). *Diagnostic and Statistical Manual of Mental Disorders*. Washington DC: Author.
- Crisp, B. R., Jackson, A. C., Thomas, S. A., Smith, S., Borrell, J., Ho, W., & Holt, T. (2001). Is more better? The relationships between outcomes achieved by problem gamblers and the number of counselling sessions attended. *Australian Social Work*, 54 (3), 83-92.
- Edwards, G., & Taylor, C. (1994). A test of the matching hypothesis: Alcohol dependence, intensity of treatment, and 12-month outcome. *Addiction*, 89 (5), 553-561. [Abstract in PubMed: PMID: 10189970].
- Lostutter, T. W., Larimer, M. E. & Takushi, R. Y. (2002) Measuring Gambling outcomes Among College Students. *Journal of Gambling Studies*, 18 (4), 339-360.
- Martin, G, & Pear, J. (1992). *Behaviour Modification: What it is and how to do it*. NJ Prentice Hall.
- Paton-Simpson, G. G., Gruys, M. A., & Hannifan, J. B. (2002). Problem Gambling Counselling in New Zealand 2001 National Statistics. Unpublished summary document.
- Petry, N. M., & Armentano, C. (1999). Prevalence, assessment, and treatment of pathological gambling: A review. *Psychiatric Services*, 50 (8), 1021-1027.
- Prochaska, J. O. & Velicer, W. F. (1997). The transtheoretical model of health behaviour change. *The American Journal of Health Promotion*, 12 (1), 38-48.
- Prochaska, J. O., & DiClemente, C. C. (1983). Stages and processes of self-change in smoking: Towards and integrative model of change. *Journal of Consulting and Clinical Psychology*, 52 (3), 390-395.
- Rhodes, W. (1997). Evaluation of the Minnesota State-Funded Compulsive Gambling Treatment Programs. Final Report. Abt Associates Inc. Cambridge, MA., US. Unpublished Summary Document.
- Ryder, T., Jeffcote, J., Walker, N., & Fowler, H. (1999). More than a menu. Best Practice for Counselling Problem Gamblers. Phase One: Final Report. Edith Cowan University: Perth, WA., Australia. Unpublished Summary Document.
- Stout, R. L., Rubin, A., Zwick, W., Zwiak, W., & Bellino, L. (1999). Optimizing the cost-effectiveness of alcohol treatment: A rationale for extended case monitoring. *Addictive Behaviors*, 24 (1), 17-35. [Abstract in PubMed: PMID: 10189970].