

**PROBLEM GAMBLING ASSESSMENT AND
SCREENING INSTRUMENTS**

PHASE ONE

FINAL REPORT

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EXECUTIVE SUMMARY

Objectives

This project was commissioned by the Problem Gambling Committee (PGC); subsequently the Ministry of Health assumed responsibility from the PGC. The primary objectives of the project were to:

1. Review the assessment and screening instruments currently used in New Zealand and internationally for the assessment of problem gamblers at the clinical level including by the telephone helpline
2. Following the review, to recommend a full set of screening and assessment instruments to be used in the clinical treatment of problem gamblers; selected instruments will be able to be used to monitor client progress in follow-up assessments currently undertaken at six monthly intervals
3. To pilot the recommended screening and assessment instruments in order to test the application of these screens in the New Zealand setting

The research was divided into two phases. There was a particular focus on the screening instruments currently mandated for use by Ministry of Health funded problem gambling service providers, namely the South Oaks Gambling Screen - Three Month time frame (SOGS-3M), DSM-IV gambling criteria, Dollars Lost assessment and Control over Gambling assessment. Other screening tools used by the service providers were also considered. Additionally, the family/whanau checklist was reviewed.

Methodology

In **Phase One** firstly, a national and international *literature review* on available problem gambling screening and assessment instruments was conducted. The scope of the literature review included screens for the measurement of general health and comorbid disorders experienced by problem gamblers as well as conventional problem gambling screens. Secondly, 19 in-depth structured *interviews* with a mix of closed and open-ended questions were conducted with participants from a representative selection of problem gambling service providers plus one alcohol and drug rehabilitation trust. Thirdly, participants from the same organisations took part in one of five *focus groups* to discuss some of the question areas in more depth. Fourthly, *analysis of archival data* relating to SOGS-3M and DSM-IV gambling criteria was conducted; the data were sourced from the Gambling Helpline's database (telephone clients), the Ministry of Health's national CLIC database (face-to-face clients) and through access to a randomised selection of client (face-to-face) paper records maintained by service provider organisations.

Information and results obtained in the first phase were pooled to enable recommendations to be developed regarding the screening instruments that could be used in the New Zealand clinical context. At that stage, the interim report including recommendations was sent to two international peer reviewers (clinician/researcher) for comment. Additionally, a meeting of key stakeholders was held to obtain endorsement for the recommended screening instruments, prior to the trial of those instruments. The trial of the instruments was **Phase Two** of the project and will be reported separately.

Phase One findings

Literature review

Over 30 measures for assessing problem gambling were reviewed in terms of their development, and merit/limitations for use in various settings. These included:

- *Early screens* (GA-20, ISR Measure, IGB/CCSM and ASI-G)
- *DSM criteria and screens* (DSM-IV gambling criteria, SOGS/SOGS-R, MAGS, DIGS, DIS, DSM-IV-MR, NODS, NESARC and NCS-R)
- *Non-DSM screens developed for population research* (SGC, VGS, CPGI, HARM measure, IBS and GPS)
- *Brief screens* (Reduced SOGS measures, Lie-Bet screen, EIGHT screen, NODS-CLiP)
- *Screens to evaluate problem gambling in clinical settings* (GAMTOMS, GBI, SCI-PG, YBOCS-PG, G-SAS, G-Map, GUS/GRCS, G-TLFB, GSEQ, GABS and GRTC)

The review also focused on a variety of measures to assess disorders comorbid with problem gambling and general health screens, such as alcohol use/misuse, depression and anxiety, stress and coping, domestic violence and general health.

The review found that early conceptualisations of problem gambling were based primarily on clinical experience and expert group consensus with the few tools that were developed reflecting a strong psychological and behavioural perspective. Recent emergence of a public health approach to gambling problems, particularly evident in Australia, Canada and New Zealand, has led to a focus on 'harm' as the foundation of several new measures of problem gambling. Researchers in these countries have argued that a focus on harm is more appropriate for determining the socioeconomic impacts of gambling in the community. However, they also believe that this perspective is useful in screening for individuals who have, or may be, at risk for developing into problem gamblers. Despite claims to a broader perspective, the problem gambling measures developed in Australia and Canada continue to include many items used in earlier screens and reflect a continued emphasis on the behavioural aspects of problem gambling.

While measures of problem gambling should ideally rest on theoretical principles, constraints in resources often lead clinicians and researchers to seek out the most practical assessment tools - those that are short and require little or no training to administer and score. Brevity and ease of administration have certainly been important factors in the widespread adoption of the SOGS. These factors are also important in the rapid adoption of the PGSI for prevalence research in a number of jurisdictions. As brief screens for problem gambling continue to be developed, it is likely that these will be rapidly adopted for use even in the absence of good information about their performance in a range of different settings.

Interview results

General findings

Screening/assessment of clients is usually performed at the first or second interview but also occurs on an 'as-needed' basis during the therapeutic process. The same set of tools is used at different assessment points; however, different organisations use different sets of tools. Screens are generally used in combination (i.e. multiple screens are used consecutively), or as a mixture of individually (one screen at any given time) and in combination, to gain a holistic understanding of the client's personal experience.

The different treatment organisations appear to have different and sometimes opposing views regarding the uses, purposes and benefits of screening and assessment instruments. However,

there was consensus in terms of key gambling-related and comorbidity information generally required at the assessment interview.

There were common perceived difficulties with most of the screening instruments currently used. Many of these follow the same themes:

- Language/wording not all suited to the New Zealand multicultural context, e.g. use of 'loan sharks' in SOGS-3M
- Cultural inappropriateness, e.g. around the questions focused on borrowing money in SOGS-3M
- Timeframe not suitable
- Ambiguous wording, e.g. Dollars Lost assessment, Control over Gambling assessment

In terms of use of the SOGS-3M, Dollars Lost and Control over Gambling assessment, most respondents found the tools useful to raise awareness around the client's gambling; however it was felt that the tools could be improved. In terms of using DSM-IV gambling criteria it was found that this tool is not used consistently by the treatment organisations, and is used sometimes as a clinical diagnostic tool, sometimes as a questionnaire and sometimes as a re-worded and re-ordered questionnaire.

AUDIT was considered to be a useful tool for assessing alcohol misuse/dependency especially in raising awareness for the client; however, it was felt that the tool could be improved.

There was no real consensus amongst participants regarding the use of screening tools for other comorbidities. When asked, the majority of respondents thought that a screen for general psychopathology (such as the GHQ-12 assessment) would be useful.

It was apparent that there are significant different cultural considerations not only for ethnic-specific services but also for the different modes of treatment provided (e.g. telephone versus face-to-face counselling) and for the different organisations themselves and their varied cultural client bases.

The Family/whanau checklist is generally used with significant others; other measures are also used, varying between and within organisations. There was general consensus that the Family/whanau checklist was a good tool that did not need any modification in the current context.

Overall, there was no consensus on the general usefulness of screening tools for gambling treatment providers nor on the best screening tools to provide effective treatment or for follow-up care.

Focus group results

The focus groups identified several themes relating to the current use of screening instruments.

Language

There was concern regarding the language used in the screening instruments, in particular:

- The wording can be ambiguous
- The questions are not relevant to the client
- The time frame may not be appropriate for the client
- The practitioner may not understand the questions

Cultural

Cultural issues are a major consideration, whether it is culture based on ethnicity or geographical location; there is a need to understand the client's local environment (cultural, spiritual, relationships or locality).

Timing

The timing of use of screening instruments was considered very important with the need to reach a balance between screening to obtain data for statistical information (to receive funding) versus the connection and rapport building with the client.

Other information

The need for other information from a client assessment (such as comorbidity information) was considered important especially if referral to other services was warranted. The context of screening instruments for the client and counsellor was also a key issue.

Positive use of screening instruments

The use of screening instruments for measuring client progress and education was seen to be positive.

Negative use of screening instruments

In addition to the previously mentioned concerns regarding use of screening instruments, other concerns were raised such as:

- Can be unnatural to the therapeutic process
- Screens can negate the subjective experience of the client
- Clients can have anxiety around screens
- The screen score may not reflect the client's perceptions around the problem
- Practitioners need training in the use of screens

How screening instruments are used

The screening instruments are often used as designed/required for the CLIC database with positive/beneficial outcomes:

- Prompts practitioner
- Generates awareness
- Links counsellor and client
- Useful for practitioners 'inheriting' a client

However, screening instruments are not always used as designed/required because of perceived negative and non-beneficial outcomes:

- Screens not used as questionnaires
- Screens not used in first assessment
- Screens only used as considered necessary by counsellor

Archival data results

Helpline

The DSM-IV gambling criteria are worded as questions (and re-ordered) which are either asked of the client or the counsellor will check off responses that appear applicable through the motivational interviewing conversation. Eighty six percent of clients with a non-zero score were classified as pathological gamblers using the DSM-IV.

CLIC database

Ninety-five percent of clients screened with SOGS-3M and 80% of clients assessed using DSM-IV gambling criteria were classified as problem or pathological gamblers. All DSM-IV

scores are reported with no regard as to whether the information was obtained via a diagnostic interview, via questions asked of the client, or questions given to the client to self-complete. This raises some questions as to the validity of this aspect of the database.

The median amount of money lost by clients in the four weeks prior to assessment was \$740 (range \$0 to \$370,000). Three quarters of the clients felt they were either mostly or completely out of control with their gambling.

Favoured combinations of screening and assessment tools used by clinicians with clients were:

- SOGS-3M, DSM-IV gambling criteria, Control over Gambling assessment and Dollars Lost assessment
- SOGS-3M, Control over Gambling assessment and Dollars Lost assessment

However, up to 11 different screening instruments have been used with individual clients.

Clinic sample

Ninety-four percent of clients screened with SOGS-3M were classified as problem or pathological gamblers. However, SOGS-3M questions related to borrowing money (questions 13a to 13i) were items that were most often not answered (between 19% and 32%). Chinese and Korean versions of the SOGS-3M are in use; some phrases are translated in essence of the meaning rather than literally (e.g. there is no understanding of 'loan sharks' in Chinese).

Eighty percent of clients assessed using DSM-IV gambling criteria were classified as pathological gamblers; criteria which most often had no response recorded (25% or greater) were item 4 (related to being restless or irritable), item 8 (related to illegal acts) and item 10 (related to relying on others to provide money).

Least useful items of DSM-IV gambling criteria and SOGS-3M

In addition to the 'not answered' questions, for the DSM-IV gambling criteria (Helpline and clinic data), there are several items that do not add to the usefulness of the tools within the context of problem gamblers seeking formal help (from Cronbach's alpha analyses) (see table overleaf).

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
1 (Helpline)	Do you go back later to win your money back?	Maori, Pacific Asian
10 (Helpline)	Have you ever done anything that is not lawful to get money to gamble with?	European, Maori, Pacific, Asian, under 20, 30-39 and 50-59 age groups
2 (clinic)	Needs to gamble with increased amounts of money in order to achieve the desired excitement	Asian
3 (clinic)	Has repeated unsuccessful efforts to control, cut back or stop gambling	Maori
4 (clinic)	Is restless or irritable when attempting to cut down or stop gambling	26.4% of responses missing
5 (clinic)	Gambling as a way of escaping from problems or of relieving a dysphoric mood	European, Maori, females
6 (clinic)	After losing money gambling, often returns another day to get even	Asian
8 (clinic)	Has committed illegal acts such as forgery, fraud, theft or embezzlement to finance gambling	European, females, under 20-29 and 40+ age groups 38.9% of responses missing.
9 (clinic)	Has jeopardised or lost a significant relationship, job or educational or career opportunity because of gambling	European, 40-49 age group
10 (clinic)	Relies on others to provide money to relieve a desperate financial situation caused by gambling	Maori, Pacific, Asian 34.7% of responses missing

In addition to the 'not answered' questions, for the SOGS-3M (clinic data), the least useful items appear to be those relating to borrowing money to gamble or to pay gambling debts (question 13), in particular:

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
13a	From household money	18.8% of responses missing
13b	From spouse	27.5% of responses missing
13c	From other relatives or in-laws	European 22.5% of responses missing
13d	From banks, loan companies or credit unions	European 27.8% of responses missing
13e	From credit cards	European, Maori, females, 20-29 age group 28.7% of responses missing
13f	From loan sharks	European, Pacific, Asian, males, 30+ age group 32.3% of responses missing
13g	Cashing in stocks, bonds or other securities	European, Maori, Pacific Asian, all age groups 35.1% of responses missing
13h	Sold or pawned personal or family property	27.5% of responses missing
13i	Borrowed on cheque account (bounced a cheque)	Asian, males, 20-39 age group 31.7% of responses missing

Key stakeholder meeting

At the key stakeholder meeting consensus was reached regarding the screening instruments to be trialled in Phase Two of this project (see ***Recommendations*** overleaf) and on the methodology for trialling the instruments. Two particular issues of concern focused on: 1) the need for cultural training for all clinicians in the problem gambling field, and 2) the need for

very brief questions regarding comorbidity issues with problem gambling with full screens for the various disorders to be utilised if warranted.

Recommendations

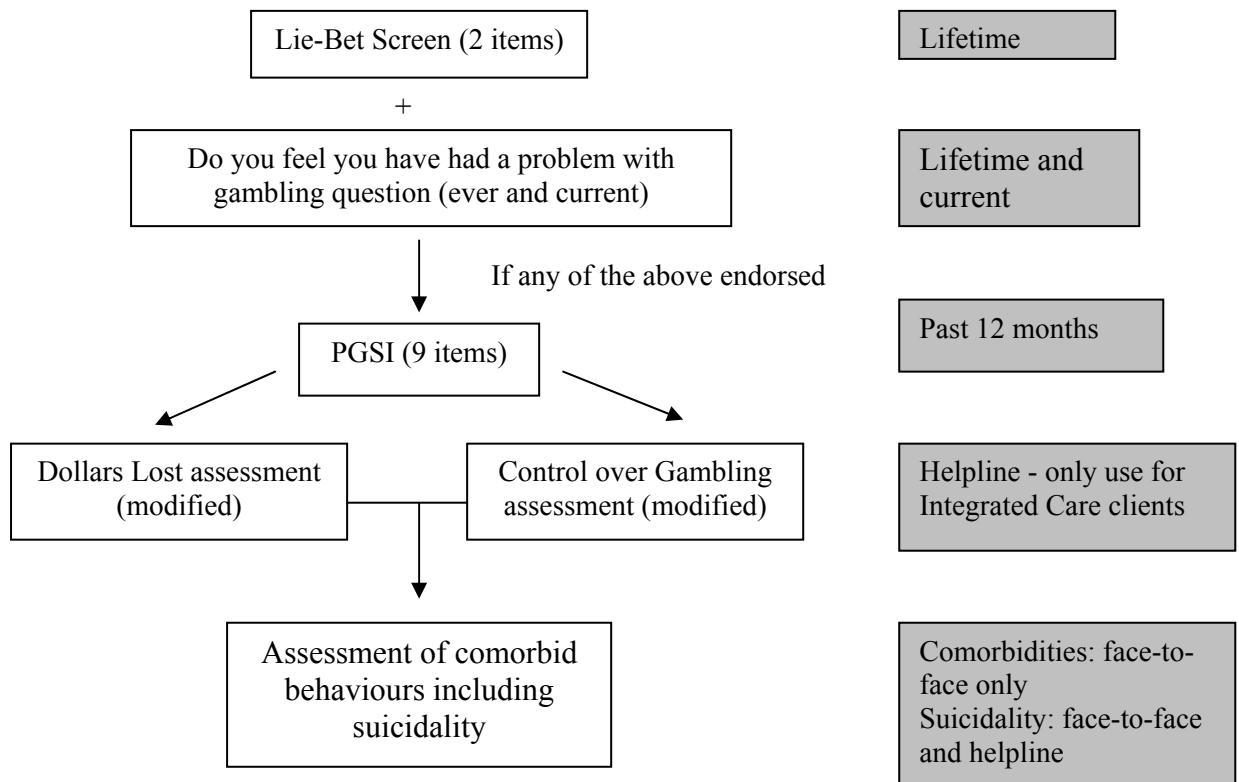
Based on the results of the literature review, interviews and focus groups, feedback from the key stakeholder meeting, and taking into consideration the need for screening tools that will be useful in the therapeutic process as well as the importance of gathering data for a national dataset, the following recommendations have been proposed (see below).

It should be noted here that some of the recommended instruments detailed have not previously been evaluated within a New Zealand context. Thus their utility in the specific cultural contexts of New Zealand (especially Maori, Pacific and Asian populations) is not known. Likewise, the usefulness of the screens for different genders and age groups may not previously have been ascertained. However, this should not preclude the use of specific instruments in this project and any screening tools selected for trial can be assessed for sensitivity to culture, gender and age, where possible.

What is important to remember, at this stage, is that service providers currently use screening tools with which there is evidence of dissatisfaction and that the data collected from use of these screens is sometimes invalid or inaccurate. The purpose of proposing a new set of recommended screening instruments is to find a balance between functionality for the clinician and for the national database.

Gambling screens

Use in helpline and face-to-face clinics



To assess therapeutic change over time it is recommended that a reduced time frame PGSI, (e.g. a three-month time frame) be utilised at follow-up assessments, as necessary.

Other screens

Culture

Information from this project has clearly indicated a need for cultural appropriateness when screening and assessing gambling-related clients. As this will vary dependent on the organisation providing the service, it is recommended that ethnic-specific services should also use whatever assessment processes are culturally appropriate for their organisation, in addition to using the recommended screens detailed previously.

A need was raised for cultural training for all clinicians. This is outside the remit of this project but is an issue that the Ministry of Health may wish to consider.

Family/whanau

All face-to-face gambling counselling participants currently use the 'family/whanau assessment checklist' with 'significant other' clients. A variety of other assessments are also used. It is recommended that the 'family/whanau assessment checklist' continues to be used with significant other clients.

In-depth alcohol and depression/anxiety screens

As there were mixed participant responses relating to the usefulness of using in-depth screens for issues such as alcohol misuse, depression and anxiety, it is recommended that these screens not be used routinely with clients but at the discretion of the counsellor. The choice of screen should be an organisational decision; however, in terms of alcohol misuse/dependence there was good agreement by participants in this study that the AUDIT is useful. At the key stakeholder meeting, the three-question AUDIT-C was approved as the instrument of choice - this has been included as part of the comorbidity questions to be trialled. It would be useful from a national (data collection) perspective if there were to be standardisation between organisations regarding the choice of screens used for comorbidities other than alcohol use.

Alcohol and drug treatment services

The rehabilitation trust participants stated the need for a gambling screen to assess comorbidities with alcohol and drug dependence. It is recommended that the CPGI be used in this setting as this covers the areas that they currently screen but is a validated tool rather than being in-house developed.

Integrated Continuing Care

The purpose of screening/assessing a client during the Integrated Continuing Care process is to ascertain behavioural change within that person, including level and control over gambling. For those clients it is recommended that the nine-item PGSI be used (in a shortened three-month timeframe) together with the Dollars Lost and Control over Gambling assessments.

Following the Phase Two trial of the recommended screening instruments, it will be possible to make a more definitive recommendation (e.g. whether refinement is necessary) regarding problem gambling and other health screening tools to be used in the different contexts (organisationally as well as culturally) and it may be possible also to be more definitive regarding depression/anxiety screens and cultural models of health.

Conclusion

- The literature review identified that more applicable and practical problem gambling screening instruments are available than the tools currently in use in New Zealand.
- Results from the interviews and focus groups identified significant reliability, practicality and applicability problems with the use of the current tools. They also identified a lack of consensus on the general usefulness of screening tools and on the best screening tools to provide effective treatment, including from a cultural perspective.
- There was consensus that screening and assessment of clients at (generally) the first or second interview, is a clinically useful process enabling holistic identification of the client's situation which can be used as part of the therapeutic process (for example, in the development of a client-tailored treatment plan or in helping the client to understand the nature of their problem).
- Analysis of data collected from the national databases identified some reliability and validity issues as well as several items within the SOGS-3M and DSM-IV gambling criteria that did not add to the usefulness of the tools within the context of problem gamblers seeking formal help.
- The recommended instrument to overcome the current issues and problems comprises a significantly reduced number of questions integrating validated problem gambling screens (Lie/Bet and PGSI), questions relating to dollars lost gambling and control over gambling, and brief questions identifying other comorbid behaviours (including the AUDIT-C). This standardised battery can be supplemented by the addition of in-depth screens for comorbid disorders or the use of cultural models of health, to enable organisations to work within a framework that fits with the needs of their cultural client base.
- This covers the clinical need to have a tool that will be useful, and a minimal clinical time burden, in the therapeutic process as well as meeting the Ministry's need to have a robust and valid dataset that will allow for monitoring of the New Zealand problem gambling status and to compare it with international jurisdictions.

1. BACKGROUND

2.1 Introduction

In October 2004, the Problem Gambling Committee commissioned the Gambling Research Centre, Auckland University of Technology to undertake a project investigating the problem gambling-related assessment and screening instruments currently utilised by problem gambling and other service providers within New Zealand. In December 2004, the Ministry of Health assumed responsibility for Problem Gambling Committee projects and thus for the funding of this project.

The primary objectives of the project are to:

1. Review the assessment and screening instruments currently used in New Zealand and internationally for the assessment of problem gamblers at both the clinical and primary health levels including by the telephone helpline
2. Following the review, to recommend a full set of screening and assessment instruments to be used in the clinical treatment of problem gamblers and potentially in primary health settings; selected instruments will be able to be used to monitor client progress in follow-up assessments currently undertaken at six monthly intervals
3. To pilot the recommended screening and assessment instruments in order to test the application of these screens in the New Zealand setting

Given the time frame and budget for the project and following discussion with John Hannifin, on behalf of the Problem Gambling Committee, primary health services were excluded from the project and the focus was centred on specialist problem gambling clinical settings.

2.2 Research design

The research was conducted in two phases.

Phase One

- Review screening and assessment instruments currently used by Ministry of Health funded problem gambling service providers (Component A)
- Ascertain what problem gambling service providers want to achieve by screening and assessing clients (Component A)
- Ascertain how problem gambling service providers use current screening and assessment data and whether the screens/assessments deliver the required information (including in terms of cultural/ethnic variations and requirements) (Component A)
- Review national and international literature pertaining to problem gambling screening and assessment instruments (Component B)
- Determine item analysis/internal consistency of SOGS-3M and DSM-IV (Component C)
- Recommend problem gambling screening/assessment instruments for use within a New Zealand context (Component D)

Phase Two

- Trial the recommended screening/assessment instruments to ascertain effectiveness and usefulness

Phase One

The first phase of the project involved four components, some of which occurred concurrently.

Component A

- Review screening and assessment instruments currently used by Ministry of Health funded problem gambling service providers
- Ascertain what problem gambling service providers want to achieve by screening and assessing clients
- Ascertain how problem gambling service providers use current screening and assessment data and whether the screens/assessments deliver the required information (including in terms of cultural/ethnic variations and requirements)

The aims of this component were to discover what service providers are seeking to achieve when screening/assessing problem gamblers, in each setting, and current practice in terms of how each provider uses the screens/assessment results, including discussing results with clients.

Concurrently, it was important to establish what each service area is currently using to screen/assess problem gamblers and whether the current screens/assessments deliver required information. This included a review of the measures used in Ministry of Health funded services (i.e. SOGS-3M, Dollars Lost, Control over Gambling, Family/Whanau Checklist and other measures such as depression screens, substance misuse/dependency screens and suicidality screens). If service providers felt that the current screens/assessments do not deliver the required information or could be improved, the aim was to find out what is required taking into consideration inter-agency collaboration such as Integrated Continuing Care between the Helpline and face-to-face services. A further important area to assess was whether the current measurements are ethnic-specific/reliable and valid for use with people from different ethnicities.

The project also aimed to obtain each service provider's view on using a standard problem gambling screen across all settings and ascertain whether there are any preferences. Additionally, each service provider's view on adding a measure of more general psychopathology, for example the GHQ-12, or more specific comorbidities (e.g. alcohol misuse/dependence, drug misuse/dependence) were ascertained.

Interviews and focus groups were conducted with representatives of service providers to obtain the required information.

Component B

- Review national and international literature pertaining to problem gambling screening and assessment instruments

This was conducted concurrently with Component A and involved an in-depth review of national and international literature on available problem gambling psychometric tools/screening instruments. This included general health index screens for the measurement of harms experienced by problem gamblers as well as conventional problem gambling screens. The review was conducted via: interlibrary loan, electronic bibliographic indexes accessed via on-line database searches, specialist libraries accessed via web-based searches and searches through personal collections, and professional and informal networks contacted via personal communications and discussion groups.

A search was made of on-line databases accessible through the Auckland University of Technology library system and included the main psychological, psychosocial and medical databases.

Additionally, various gambling-related organisations and government departments have websites which include searchable databases and/or libraries, or which detail gambling-related publications and reports. These were also accessed as well as the named investigators' personal libraries on gambling and related subjects, which contain many reports that have not been published in mainstream literature plus publications that are difficult to obtain. They also include pre-publication reports and articles from a variety of sources.

The results of the literature review were used to inform the recommendations made at the conclusion of Phase One.

Component C

- Determine item analysis/internal consistency of SOGS-3M and DSM-IV

Assessment of archival data from the Ministry of Health national problem gambling face-to-face dataset (CLIC database) and from the Gambling Helpline database was conducted to determine item analysis/internal consistency of SOGS-3M and DSM-IV (where possible). The aim was to look at 100¹ records per screen per ethnic group (European/ Pakeha, Maori, Pacific, Asian) and also within gender and age groups, where possible. The relevance of these screens to the Problem Gambling Severity Index (PGSI) 9-item screen and to the Victorian Gambling Screen² was assessed. This component relied heavily on data being available, accessible and of a standard and quality to enable rigorous evaluation. Where the data were missing or not of rigorous quality, this component was modified in terms of numbers of records accessed and analysed.

This component of the study was used to give an indication of how well the two most widely used problem gambling screens in New Zealand service settings perform with clients from major ethnic groups, as well as with males, females and different age groups. Performance was measured from both a practical data collection and quality level, through to reliability measures such as the internal consistency of the screens. It also advanced understanding of similarities and differences between these groups with respect to the nature of their gambling problems. Information on screen performance contributed to the recommendations made regarding the screening instruments to be trialed.

Component D

- Recommend problem gambling screening/assessment instruments for use within a New Zealand context

Two international experts (clinician/researcher experienced in various aspects of problem gambling) were consulted and a meeting of national service providers and other key stakeholders was held to reach recommendations on initial assessment categories. The international experts came from major countries where gambling treatment and research are well established (Canada and USA). Some of the national service providers invited to the meeting were the same stakeholders involved in the earlier components of the research. This was practical and also allowed them to continue being involved in the research process by having the opportunity to refine/comment on initial recommendations and how these will impact on their work within their organisations.

¹ This number was chosen as being sufficient to allow a breakdown of analyses by ethnicity; the number was constrained by available project time and budget for accessing records.

² These screening instruments were specified by the funder in the contract for this project.

Phase Two

The second phase of the project will involve trialling the problem gambling screening/assessment instrument/s recommended from Phase One. This will involve the Helpline and face-to-face counselling services including the current Integrated Continuing Care follow-up programme, to ascertain usefulness and effectiveness of the recommended measures. It will also assess the instruments' sensitivity to change as this is an important aspect when multiple assessments are made such as at follow-up interviews in the Integrated Continuing Care programme. At this stage, it is important to emphasise that the clinicians in the various treatment organisations are not conducting formal clinical assessments with their clients; they are assessing clients for problem gambling and a variety of other potentially comorbid disorders. The information gained is ideally used to improve the therapeutic relationship by, for example, aiding the development of a treatment plan, or aiding the understanding of the nature and extent of the problem by the client and/or counsellor.

Phase Two will involve cognitive testing, piloting and possible adaptation of the measures for use in the New Zealand context, followed by trials in the relevant service settings. The performance and utility of the proposed new measures will be compared with those currently used.



2. RESEARCH METHODOLOGY

3.1 Ethics approval

The project proposal was submitted to the AUT Ethics Committee (AUTEC) which is a Health Research Council accredited human ethics committee. All participant materials (i.e. information sheet, consent form, interview questionnaire) and relevant documents were submitted to the AUTEC, which considers the ethical implications of proposals for research projects with human participants. AUT is committed to ensuring a high level of ethical research and AUTEC uses the following principles in its decision making in order to enable this to happen:

Key principles:

- Informed and voluntary consent
- Respect for rights of privacy and confidentiality
- Minimisation of risk
- Truthfulness, including limitation of deception
- Social and cultural sensitivity including commitment to the principles of the Treaty of Waitangi/Te Tiriti O Waitangi
- Research adequacy
- Avoidance of conflict of interest

Other relevant principles:

- Respect for vulnerability of some participants
- Respect for property (including University property and intellectual property rights)

The ethics approval for this project was obtained on 14 February 2005 (Appendix 1).

During the research the following measures were taken to protect the identity of the participants:

- All participants were allocated a code by the research team to protect their identities
- No personal identifying information has been reported. However, service provider organisation types have been identified and recorded as one of the aims of this research is to tailor recommended screening/assessment instruments to service providers, where necessary
- As small numbers of participants were involved in the interviews and focus groups they were informed prior to data collection that there would be a possibility that they would be identifiable within their organisations (as their managers were aware who participated in the project). All participants agreed to be part of this project knowing the potential for intra-organisational identification
- All data accessed from the Gambling Helpline database and Ministry of Health National Counselling Statistics CLIC database had client identifying details removed prior to being given to the research team. Confidentiality statements were signed by the researchers relating to these data
- All paper archival data received from service providers had client identifying details removed prior to being given to the research team

In addition:

- Participants in interviews and focus groups were informed that participation in the research was voluntary and that they could withdraw at any time prior to analysis of data

3.2 Service provider meetings

The research team met³ with the manager/s of each of the participating service provider organisations prior to the commencement of data collection to inform the provider regarding the nature and purpose of the project. The manager of each organisation gave consent for members of their staff to participate in the research and for some archival data to be accessed, as necessary. The establishment of these relationships between service providers and researchers took place between 4 February and 16 March 2005.

3.3 Cultural awareness

Three advisory groups were established for this research project: Maori, Pacific and Asian. The purpose for establishing these groups was so that the researchers could receive advice in terms of cultural integrity, safety and appropriateness of the research process. The composition of the advisory groups was as follows:

- Maori - two members of the Gambling Helpline Maori team
- Pacific - one member from each of: National Pacific Gambling Project, Problem Gambling Foundation and Centre for Pacific Health and Development Research, Auckland University of Technology
- Asian - one member from the University of Auckland and another an Asian citizen

Establishment of these advisory groups, usually through face-to-face meetings, took place between 4 February and 1 April 2005.

The advisory group members were given the opportunity to comment on the interview questionnaire and the focus group questions prior to their use with participants. Received comments were considered and used to refine the final interview and focus group questions. Advisory group members were also invited to participate in the key stakeholders' workshop.

In addition, the Gambling Helpline Maori team as a whole collaborated with the researchers and advised on Maori tikanga, where appropriate, especially in relation to interviews and focus groups involving Maori. The researchers involved in the project also included Lana Perese who is of Samoan ethnicity and Ruth DeSouza who is from Goa. Both of these researchers were able to provide additional guidance to the research process in terms of their respective cultural perspectives. They also conducted the relevant interviews and focus groups (i.e. Ruth was involved in Asian interviews and focus groups; Lana with the Pacific groups).

3.4 Literature review

The literature review was conducted through the following means:

- Interlibrary loan
- Electronic bibliographic indexes accessed via on-line database searches
- Specialist libraries accessed via web-based searches and searches through personal collections
- Grey literature accessed via personal collections and through professional and informal networks
- Professional and informal networks contacted via personal communications

³ All meetings were face-to-face with the exception of the Maori service where the meeting was conducted via telephone.

Interlibrary loan

A copy of Dr Sean Sullivan's Ph.D. thesis (Sullivan, 1999) detailing the development of the EIGHT screen was obtained via interlibrary loan from the University of Auckland.

Electronic bibliographic indexes

A search of the following on-line databases accessible through the AUT library system was conducted to locate potentially relevant literature:

- Academic Search Premier
- Blackwell-Synergy
- Cochrane Library
- CSA Social Services Abstracts
- EBSCO MegaFile Premier
- ProQuest 5000 International
- PsycARTICLES
- PsycINFO
- ScienceDirect

Academic Search Premier is the world's largest academic multi-disciplinary database, providing full text for nearly 4,000 scholarly publications, including full text for more than 3,100 peer-reviewed journals. Coverage spans virtually every area of academic study and offers information dating as far back as 1975. Subject areas include: social sciences, humanities, education, computer sciences, engineering, physics, chemistry, language and linguistics, arts and literature, medical sciences, ethnic studies and more.

Blackwell-Synergy delivers the full text of over 620 prestigious journals within physical sciences, life sciences, medicine, social sciences and humanities.

Cochrane Library consists of a regularly updated collection of evidence-based medicine databases, including The Cochrane Database of Systematic Reviews: evidence-based systematic reviews prepared by the Cochrane Collaboration which provide high quality information to people providing and receiving care and those responsible for research, teaching, funding and administration at all levels.

CSA Social Services Abstracts provides bibliographic coverage of current research focused on social work, human services, and related areas including social welfare, social policy and community development. The database abstracts and indexes over 1,406 serials publications and includes abstracts of journal articles and dissertations, and citations to book reviews.

EBSCO MegaFile Premier is a suite of 24 databases covering a wide variety of subjects. It includes MEDLINE which is the world's most comprehensive source of life sciences and biomedical bibliographic information. More than 7,000 of the 11,000 titles in the suite are available in full text including 3,200 peer-reviewed journals.

ProQuest 5000 International indexes over 5,500 journals across several disciplines and with full text for over 3,000. It is one of the world's most comprehensive collections of digital information. Millions of complete articles are available online in various formats.

PsycARTICLES is a collection of 42 highly regarded full text journals from the American Psychological Association.

PsycINFO is an electronic bibliographic database that provides abstracts and citations to the scholarly literature in the behavioural sciences and mental health. The database includes material of relevance to psychologists and professionals in related fields such as psychiatry,

management, business, education, social science, neuroscience, law, medicine and social work. The PsycINFO database contains almost two million references to psychological literature from the 1800s–present, from journal articles, books, book chapters, technical reports and dissertations.

ScienceDirect is a collection of over 1,700 journals from Elsevier Science, Academic Press and Harcourt Health Sciences covering a wide range of disciplines.

The searches were performed in February and March 2005 utilising the following keywords. Truncated words are indicated by an asterisk (*) which means that all words starting with the truncation (the letters before the asterisk) were automatically searched for within each database.

- (Gambling or gaming) and (screen* or assess*)
- (South Oaks Gambling Screen) or (SOGS*)
- (Canadian Problem Gambling Index) or (CPGI) or (CPGSI)
- (Victorian Gambling Screen) or (VGS)
- GAMTOMS
- Scale of Gambling Choices
- Gambling Urges Scale
- (PG-YBOCS) or (YBOCS)
- (SCID-PG) or (SCID)
- GAM-IV
- NODS
- DSM-IV
- MAGS-7

Each literature search on each database accessed varying numbers of articles. There were varying degrees of overlap between the databases. A full list of titles and/or abstracts was obtained from each search. For titles or abstracts that appeared to be relevant to this project, full text publications were accessed electronically and reviewed.

Specialist libraries

Various gambling-related organisations and government departments have websites which include searchable databases and/or libraries, or which detail gambling-related publications and reports. These websites were searched for literature relevant to the project. Any material that appeared to be relevant was downloaded and reviewed.

The research team also had access to substantial personal libraries on gambling and related subjects. These collections contain many reports that have not been published in mainstream literature plus publications that are difficult to obtain. They also include pre-publication reports and articles from a variety of sources. Where relevant, these materials were utilised for this project.

Grey literature

Grey literature, being unpublished works not widely available to the general public, was accessed by two means. Firstly, through the personal library collections detailed previously and secondly, via professional and informal networks, detailed overleaf.

Professional and informal networks

The research team has a wide network of professional colleagues within the gambling field. This includes researchers, treatment/service providers, public health specialists, government officials and gambling industry personnel. Specific people, where appropriate, were

contacted who were considered possibly to have information that would be useful to the project.

A 'request for help' was posted to the international Email discussion group for problem gambling professionals *GamblingIssuesInternational*. This forum has over 500 members from approximately 20 countries and includes researchers, clinicians, educators, policy makers and others. The forum is moderated by the Centre for Addiction and Mental Health, Ontario, Canada. The posting to the discussion group resulted in several responses leading to published and unpublished literature. Additionally, a request for assistance was distributed to all of the members of the (U.S.) National Council on Problem Gambling which resulted in several additional helpful responses.

3.5 Interviews and focus groups
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Interviews

Individual face-to-face interviews were conducted with representatives of each of the participating service provider organisations.

Service provider	No. interviewed	Location of interview
National Helpline	2	Auckland
National Service Provider 1	3	Auckland
	2	Christchurch
National Service Provider 2	3	Auckland
	2	Christchurch
Maori Service	2	Hastings
Pacific Service ⁴	1	Auckland
Asian Service	2	Auckland
Alcohol and Drug Rehabilitation Trust	2	Auckland

The participants in the interviews were selected by recommendation of the manager of each organisation, based on staff availability and workload at the time the interviews were conducted. The interviews took place between 10 June and 11 July 2005.

The interviews were conducted face-to-face, with the interviewer visiting the service provider's premises and utilising a semi-structured questionnaire (see Appendix 2) that was designed to generate responses to the first three research aims, namely:

- Review screening and assessment instruments currently used by Ministry of Health funded problem gambling service providers
- Ascertain what problem gambling service providers want to achieve by screening and assessing clients
- Ascertain how problem gambling service providers use current screening and assessment data and whether the screens/assessments deliver the required information (including in terms of cultural/ethnic variations and requirements)

Responses to the interview questionnaire were recorded on paper by the interviewer. As the questionnaire included open-ended questions, the interview was also tape recorded so that an accurate record of the longer answers could be obtained, following transcription.

The interview responses were entered into the SPSS (12.0) statistical package for analysis. As the interviews were undertaken using a semi-structured format the analysis of the data is

⁴ At a later date two more Pacific Service participants provided feedback to this part of the project.

primarily descriptive, examining the frequency of answers to key questions. Open-ended answers were coded prior to analysis.

Focus groups

Prior to the conduct of focus groups, a workshop on how to facilitate a focus group was organised and held at Auckland University of Technology for the involved researchers. The workshop was conducted by an experienced focus group facilitator within the Faculty and took place on 7 April 2005.

Focus groups were conducted with representatives of each of the participating service provider organisations. The same participants who took part in the interviews also took part in the focus groups, where possible. This was to allow for free-flowing elaboration of the responses that were elicited in the more structured interview process, within an environment that encouraged richer and expanded dialogue (i.e. with peers who could question and respond to comments). In addition, representatives from a Pacific Gambling NGO⁵ participated in a focus group, as did a third person from the national helpline (who had been unable to participate in an interview). The intention was to have at least six people per focus group. However, due to the logistics of organising groups around busy workloads, the ideal was not achievable. The first four focus groups consisted of a mixture of service providers per group to enable organisational and cultural cross-fertilisation of discussions and comments. Participants from each organisation were spread across focus groups, where possible. This was deliberate to try to ensure that organisational policies regarding screening and assessing clients were represented across groups but also acknowledging that individual participants had their own policies and methodologies when screening/assessing clients. This focus group mix recognised inter-organisational and inter-participant differences and ensured that, as far as practicable, ideas brought up in the groups allowed for organisational and individual policies and preferences in terms of screening and assessing clients to be discussed. The final group focused on Pacific perspectives, at the request of that group.

Focus group	Service provider	Number	Total people in group	Location of group
1	National Service Provider 1 National Service Provider 2	2 2	4	Christchurch
2	National Service Provider 2 National Helpline Asian Service	1 1 1	3	Auckland
3	National Service Provider 1 National Service Provider 2 National Helpline Maori Service	1 1 1 2	5	Auckland
4	National Service Provider 1 National Service Provider 2 Alcohol and Drug Rehabilitation Trust National Helpline Asian Service	1 1 1 1 1	5	Auckland
5	Pacific Services	10 ⁶	10 ⁶	Auckland

⁵ The Pacific Gambling NGO does not provide treatment for problem gambling clients but is a point of contact, awareness-raising and information provision for Pacific peoples in regard to gambling and problem gambling. Thus, representatives from this organisation did not participate in interviews but had useful input in the focus group forum.

⁶ Not all participants stayed for the duration of the focus group.

The participants in the focus groups were again selected by recommendation of the manager of each organisation, based on staff availability and workload at the time the focus groups were conducted. The focus group were held between 14 June 2005 and 3 August 2005.

Focus groups were semi-structured to allow scope for participants to elaborate within the areas under question, to enable more detailed responses (see Appendix 3). The question areas were similar to or the same as, some of the open-ended questions within the interview questionnaire. This was deliberate, allowing in-depth responses and probing into the question areas. As with the interview questionnaire, the purpose of the focus groups was to provide responses to the first three research aims.

Focus groups were dual tape-recorded for subsequent data transcription and analysis. The second recording was made as a back-up in case of problems with the main recording such as battery failure. A systematic qualitative analysis of similarities and differences in participants' perceptions was conducted to interpret the data from the transcribed audiotapes in relation to the original research questions. Emerging trends and patterns were grouped according to themes. Responses were ordered into more specific categories for comparative purposes to determine possible cultural differences. A 'picture' of the benefits and barriers relating to the use of the current problem gambling screening instruments and associated assessments emerged as the data analysis proceeded. Qualitative analyses were undertaken using NVivo2 software.

3.6 Assessment of SOGS-3M and DSM-IV archival data

Assessment of archival data from the participating service providers to determine item analysis/internal consistency of South Oaks Gambling Screen - three-month time frame (SOGS-3M) and DSM-IV gambling criteria (where possible) was conducted. The aim was to look at 100 records per screen per ethnic group (European/Pakeha, Maori, Pacific, Asian) and also within gender and age groups, where possible. The relevance of these screens to the Problem Gambling Severity Index (PGSI) nine-item screen and to the Victorian Gambling Screen was assessed. Access to these archival records was via two means.

Firstly, the Gambling Helpline holds full electronic records in a database format. Following the signing of confidentiality statements (13/19 April and 6 May 2005) detailing secure access and storage of data, the researchers were provided with database access to the following fields for the five years 1 January 2000 to 31 December 2004, inclusive:

- Ethnicity
- Age
- Sex
- SOGS-3M summary score (from Integrated Continuing Care assessment)
- DSM-IV summary, number of criteria met (if available)
- DSM-IV individual criteria met (if available)
- Primary mode of gambling
- Secondary mode of gambling
- Risk assessment information
- Suicide screen information
- Region
- Date of client contact
- Any fields containing other screening/assessment scores
- Any comment fields relating to SOGS/DSM-IV scores/criteria (as long as they did not identify individual/personal details)

In addition, data relevant to screening instruments for specific face-to-face clients (randomly assigned as detailed overleaf) on the Integrated Continuing Care programme were provided to the researchers by the Gambling Helpline.

Secondly, the Ministry of Health owns the National Counselling Statistics database (referred to as the CLIC database) which holds electronic records of data from screening and assessment instruments from clients accessing Ministry of Health funded face-to-face problem gambling counselling service providers. Following the signing of a confidentiality statement (20 April 2005) detailing secure access and storage of data, the researchers were provided with database access to the following fields for the years 1 January 2000 to 31 December 2004, inclusive:

- Client ID number
- Service provider
- Ethnicity
- Age
- Sex
- SOGS-3M summary score
- DSM-IV summary score (if available)
- Region
- Date of client contact
- Any fields containing other screening/assessment scores
- Any comment fields relating to SOGS/DSM-IV scores/criteria (as long as they did not identify individual/personal details)

However, the database only holds a record of summary scores for each screen and not the individual items which were required for item analysis. Thus, from the database details provided to the researchers, a random list of clients was created covering the four ethnic groups being investigated in this project (European/Pakeha, Maori, Pacific, Asian). Criteria for acceptance on the random list were:

- Reported sole ethnicity
- Were not enrolled at multiple clinics
- At least one problem gambling tool was applied (SOGS-3M or DSM-IV criteria) for at least one assessment
- Initial assessment was between 1 January 2000 and 31 December 2004
- Clinics were selected due to ease of accessibility to records and representativeness of the population (for example, some clinics on the database no longer existed at the time of the research)

One hundred and twenty⁷ client ID numbers for each ethnic group (i.e. a total of 480 clients) were randomly selected in this way from the service providers participating in the project. The service providers were asked to provide photocopies of the following information for each client ID supplied to them by the researchers, ensuring that any client personal details were not copied (e.g. client name):

- SOGS-3M individual scores (i.e. the client's response to each of the individual questions)
- Dollars Lost individual values (i.e. the amount in dollars lost by the client for each of the four weeks, individually)
- DSM-IV individual responses, where available (i.e. endorsement or otherwise of each individual criterion)
- Client's primary mode of gambling
- Client's secondary mode of gambling

⁷ This was greater than the 100 records required for analysis, to attempt to allow for missing data.

- Confirmation of client ethnicity
- Confirmation of client date of birth, or age if date of birth not given but age at assessment was known
- Whether the client became an Integrated Continuing Care client

This component relied heavily on data being available, accessible and of a standard and quality to enable rigorous evaluation. Some data were missing or not of rigorous quality. The data were received by the researchers by 2 September 2005.

These quantitative data were analysed using the SPSS (12.0) statistical package. Analyses were undertaken at item- and scale-level. Item-level analyses included the determination of mean and distribution characteristics of each item in the SOGS-3M and DSM-IV. These analyses were conducted for the total sample and separately for European/Pakeha, Maori, Pacific and Asian groups. In general population contexts, items that contribute usefully to the overall measure have good variability and are endorsed by a reasonable percentage of clients. Findings were examined to identify any items that did not have moderate to high rates of endorsement and/or had anomalous distributions in terms of kurtosis and skewness. In addition to identifying items that did not perform well across the total sample, attention was given to identifying any items that lacked these attributes when administered to particular ethnic groups.

It is recognised that the current concept of gambling is multidimensional; however in practice the utilisation of a screening measure for problem gambling in New Zealand provider services assumes a unitary construct. In practice only the total scores both for DSM-IV gambling criteria and SOGS-3M are ever recorded or utilised. Therefore the following analyses are based around the assumption of a unitary construct.

The suitability of items for use with the different ethnic groupings was further examined by Chi square analysis as proposed in the original research proposal. For each ethnicity group, clients' DSM-IV scores were categorised according to whether they met the criteria for problem gambling or not, and this was then tested for any association with individual item scores utilising Chi-squares. A significant chi-square means that there is an association between the item and the client meeting the criteria for problem gambling.

Item-scale correlations were also carried out, again for the whole sample and the four ethnic groups. Items that do not show moderate to high correlation with the total scale score are not measuring the underlying construct (in this case problem or pathological gambling).

Scale-level analysis was confined to determining the mean, standard deviation, kurtosis and skewness for the two total scale scores and internal consistency (Cronbach's alpha) for these measures. As with the item-level analyses the whole sample and ethnic sub-samples were considered separately.

Finally, construct and concurrent validity of the problem gambling measures, overall and for each ethnic group, was partially addressed by examining correlations between performance on the two measures and any other relevant file data, for example Dollars Lost and Control over Gambling.

Item- and scale-level analyses, paralleling the foregoing for ethnic groups, were also conducted with respect to gender and age.

3.7 Recommendation of problem gambling screening/assessment instruments

Results and data obtained as detailed in sections 3.4, 3.5 and 3.6 were triangulated to assist in the process of ascertaining the best assessment/screening instruments for use by problem gambling service providers in New Zealand. Triangulation is a strategy to corroborate research findings and thus to strengthen the credibility of a study (Patton, 1990). The types of triangulation used in this project include data triangulation (the use of multiple sources of evidence, i.e. literature review, databases, service providers) and method triangulation (multiple methods, i.e. literature review, interviews and focus groups, in-depth analysis of screening instrument items, consultation with experts).

Two international experts⁸ were consulted and a consensus meeting of the participating service providers (key stakeholders) was held to reach recommendations on initial assessment categories. The experts were recruited in advance of this task, through network contacts already available to the investigators. They included a researcher and a clinician/researcher experienced in various aspects of problem gambling and based in countries where gambling treatment and research are well established (Canada and the USA).

Following these processes, assessment/screening instrument(s) for use in a New Zealand context have been recommended. These will be trialled in Phase Two.

3.8 Phase Two

Recommended screening instruments and questions are detailed in Appendices 4a and 4b. In some cases, different screens and/or questions are recommended for different types of service provider organisations and in other cases, the same screens and/or questions are recommended.

Ethical approval

An ethics application for Phase Two was submitted to the Multi-Region Health and Disability Ethics Committee rather than the AUT Ethics Committee since health-related questions will be asked of participants and since participants will be from throughout New Zealand.

Pilot testing

Prior to the trial, the recommended screening instruments/questions were pilot tested (cognitively tested) to identify any issues with wording and/or language. The pilot test was conducted with a focus group of six counsellors from the participating service provider organisations, ensuring a mix of ethnicities and including representation of both genders. Two other participants were also given the opportunity to comment, via Email.

The wording of the some of the screening instruments questions to be trialled in Phase Two was slightly refined following the pilot testing focus group. Refinement was purely in terms of language/wording to ensure comprehension by various ethnic groups. No refinement was made to questions from validated screening instruments.

Training

Representatives (as many counsellors and managers as possible) of the participating service provider organisations will receive a training session at which the background to, and purpose of, the trial and the reason why the questions/screens have been chosen will be explained.

⁸ The experts were: Professor Jeffrey Derevensky (McGill University, Montreal, Canada) and Dr James Westphal (University of Hawaii, USA).

They will then receive training in how to administer the questions (i.e. information about which questions comprised validated screens and which, therefore, should be asked without change, and which are leader questions to provide them with information that could help in the therapeutic process) and how to interpret scores (where relevant), which can then be used to aid in the therapeutic process. Thus, the clinicians will receive information as to the use and purpose of each question that they will be asking of their clients. This is intended to show the clinician the value of each question and the importance of asking specific questions without changing the wording. The training will be given by the project researchers. The trained counsellors will disseminate the information to their colleagues who are also involved in the trial but who will not be able to attend a training session. Each service provider organisation will have an individual training session with each session lasting from one to two hours. For the two national service provider organisations, training will be provided in the major regions of Auckland, Wellington and Christchurch.

Trial of screening instruments

Screening instruments trialled will be those detailed in Appendices 4a and 4b. In recognition of different processes and to ensure minimal burdens on the participating organisations and their clients, different questions will be trialled by different types of organisations (as detailed within the Appendices). The counselling organisations which took part in Phase One of the project will be invited to participate in Phase Two.

It is hoped that as many clinicians as possible within each of the participating services will be able to participate in recruiting new and returning clients for this trial over a three-month⁹ period. It is hoped that a representative sample of new Maori, European, Pacific and Asian clients (approximately 250 Helpline clients and 250 face-to-face clients¹⁰) will be recruited in this way to trial the recommended screening instruments in the available time frame. The trial will run alongside the current screening and assessment processes of new clients for two reasons: a) to allow comparison between the current process and the 'new' recommended process, and b) to allow continuity of data collection for the national/organisational databases.

At this stage, it is worth noting that the clinicians in the various treatment organisations are not conducting formal clinical assessments with their clients; they are assessing clients for problem gambling and a variety of other potentially comorbid disorders. The information gained is ideally used to improve the therapeutic relationship by, for example, aiding the development of a treatment plan, or aiding understanding of the nature and extent of the problem by the client and/or counsellor. As part of the recommended screening instruments, we are recommending the use of the Problem Gambling Severity Index (PGSI) or the full Canadian Problem Gambling Index (CPGI) (dependent on organisation - see later in this section). Whilst the CPGI was developed as a general population screen it is currently being assessed in Canada for its utility as a clinical tool. In recommending that the PGSI/CPGI are used in this trial, we hope that these instruments will be shown to have utility in the current New Zealand treatment settings for the purpose of identifying problem gamblers and their level of problems as part of a broader screening process. The CPGI and its short form, the PGSI, were chosen as being a short screening tool that is currently in use internationally.

Helpline

Helpline clients are often in crisis when they contact the service. Helpline counsellors, therefore, usually do not ask their clients screening questions but assess and score answers to

⁹ This time frame was requested by the funder.

¹⁰ 250 helpline and 250 face-to-face clients is the number that can reasonably be expected to be recruited in the time frame given known numbers of clients accessing these services in previous years, the current slightly downward trend in numbers of new presenting clients and given that a substantial proportion of clients may be in crisis and, therefore, unsuitable as participants in this research.

questions gained through the clinical interview process which elicits information from the client through the use of motivational interviewing techniques. For this project, it is recommended that questions 1 to 13 (Lie/Bet through to PGSI) detailed in Appendix 4a are used with new Helpline gambler clients (as opposed to family members or other callers), with responses ascertained through the clinical interview process. Since this is a trial of these screening questions, if responses to some questions are not obvious from the immediate clinical interview and if it is warranted, the clinical interview may be steered such that responses can be obtained to the remaining questions. If some questions are still unanswered after this process, then they should be documented as being 'not answered'. Additionally, since this is a trial, if negative responses are received to the first three questions, the remaining questions will also be scored, if possible.

Helpline clients will also be scored for the suicide question that is currently part of their screening process.

Additionally, the helpline may use alcohol, anxiety and depression screens. If any of these are used, the instrument or model used will be documented. It is recommended that the AUDIT-C is trialled as an alcohol use screen.

With new Integrated Continuing Care clients, questions 5 to 16 (PGSI, Control over gambling and Dollars Lost) detailed in Appendix 4a will be asked of clients, so that correlations can be made with previous scores on those questions for those clients when they were at the face-to-face counselling service.

Significant other clients will continue to be assessed in the current manner. Therefore, this assessment instrument does not require trialling.

Face-to-face counselling services

New and returning clients will be asked questions 1 to 23 from Appendix 4a (Questions 1 to 16: Lie/Bet through to PGSI, Control over Gambling and Dollars Lost; questions 17 to 25: assessment of comorbid behaviours). Since this is a trial, if negative responses are received to the first three questions, the remaining questions will still be asked.

Additionally, organisations may also follow an appropriate cultural model of health and use anxiety and depression screens. If any of these are used, the instrument or model used will be documented.

Clients will be taken through the questions, consent form and participation information sheets by the counsellor and then given the questions to self-complete during the counselling session. The counsellors will collate the relevant information and pass on to the researchers.

It has been recommended (Appendix 4a) that significant other clients should continue to be asked the Family/whanau checklist (which is currently in use). Therefore, this assessment instrument does not require trialling.

Alcohol and drug rehabilitation trust

New admissions to the participating alcohol and drug rehabilitation trust will be asked the full CPGI as detailed in Appendix 4b. Clients will be taken through the questions, consent form and participation information sheets by the counsellor and then the questions will be given to the clients to complete as a self-report questionnaire during the usual assessment process.

All participating clinicians

Finally, participating clinicians will be given a short questionnaire to complete regarding their satisfaction with the recommended screening and assessment questions. The questionnaire

will assess the usefulness of the recommended questions in terms of ease of use, comprehension, impact on the therapeutic process, and future use (see Appendix 4c). It will also allow clinicians to comment on whether there was any need to explain or clarify questions to the client; this will identify any issues with using these screening instruments and questions as a self-report questionnaire.

Data analysis

All data will be quantitative and will be analysed using the SPSS (14.0) or SAS statistical packages. Results of open-ended questions will be coded and analysed quantitatively. Analyses will be undertaken at item- and scale-level. Item level analyses will include the determination of mean, distribution characteristics and internal consistency of each item, specifically in the gambling-related questions 1 to 16 (from Appendix 4a and all questions from Appendix 4b) but also, where appropriate, for the comorbid behaviours questions that are trialled (questions 17 to 25 from Appendix 4a). These analyses will be conducted for the total sample from each service provider organisation type (i.e. helpline, face-to-face counselling services, and alcohol and drug rehabilitation trust) and separately for European, Maori, Pacific and Asian groups (where possible). Where sample sizes allow, these analyses will also be conducted with respect to gender and age.

Results of the trial will be compared with the results of the analysis of archival data from Phase One to ascertain the advantages of using the recommended screening instruments over the currently used screening instruments.

The proposed screening tool results will also be compared with the results of the relevant presently utilised screening tools using measures of agreement such as the Bland-Altman limits of agreement (Bland & Altman, 1986), where applicable.

A limited assessment of the Problem Gambling Severity Index's sensitivity to change (questions 5 to 13 in Appendix 4a) will be made in respect to results obtained from Integrated Continuing Care clients. This effort will be limited due to the high proportion of clients expected to only make single contact with an organisation.



3. RESULTS

4.1 Literature review

Introduction

One of the purposes of the New Zealand Gambling Act 2003 is to “prevent and minimise the harm caused by gambling, including problem gambling”. Thus, this is a key strategic approach of the Ministry of Health whose integrated approach is to “prevent and minimise gambling-related harm” (Ministry of Health, 2005). Gambling harms can be experienced, and measured, in a variety of ways. As this project revolved around problem gambling screening instruments and assessment in clinical settings, the focus of the following literature review has been problem gambling measurement rather than in terms of measurements of other harms that may be caused by excessive gambling.

This section of the report presents a detailed review of the national and international literature on available problem gambling screening and assessment instruments developed for use within adult populations. The scope of the literature review included screens for the measurement of some non-gambling harms experienced by problem gamblers as well as conventional problem gambling screens. Consideration is given to the definition and conceptualisation of problem gambling as well as to risk factors associated with this disorder. This is followed by a detailed presentation of the full range of problem gambling screens and assessment tools used in clinical settings as well as in population research. Finally, recommendations regarding the most appropriate screening and assessment instruments in the New Zealand context are presented.

Framing the issue

The ultimate objective of this literature review is to arrive at recommendations for a set of screening and assessment instruments to be used in the clinical treatment of problem gamblers as well as in the identification of problem gamblers in primary health settings in New Zealand. The scope of the literature review includes not only conventional problem gambling screens but also screens that measure general health and comorbid disorders experienced by problem gamblers.

As numerous researchers have pointed out, the development of measures of problem gambling should ideally derive from a broader theoretical understanding of problem gambling that gives rise to assessment tools that capture the essential elements of the disorder (Abbott & Volberg, 1999; Neal, Delfabbro & O’Neil, 2004; Shaffer et al, 1997; Thomas, Jackson & Blaszczynski, 2003). The contexts in which such tools would be used vary substantially and include surveys of the general population, research with gamblers, screening or diagnosis in health care settings, and assessment of therapeutic change as a consequence of treatment or natural recovery. All of these authors specify the importance of arriving at an operational definition of problem gambling that rests firmly on a theory of problem and pathological gambling and a definition of the disorder.

Defining problem gambling

People take part in gambling activities because they enjoy them and obtain benefits from their participation. For most people, gambling is generally a positive experience. However, for a minority, gambling is associated with difficulties of varying severity and duration. Some regular gamblers develop significant, debilitating problems that also typically result in harm to people close to them and to the wider community (Abbott & Volberg, 1999).

Pathological gambling was first recognised as a mental disorder with its inclusion in the third edition of the Diagnostic and Statistical Manual (DSM-III) in 1980 (American Psychiatric Association, 1980). Each subsequent revision of the DSM has seen changes in the diagnostic criteria for pathological gambling. However, the essential features of pathological gambling are widely viewed as: (1) a continuous or periodic loss of control over gambling, (2) a progression, in gambling frequency and amounts wagered, in the preoccupation with gambling and in obtaining monies with which to gamble, and (3) a continuation of gambling involvement despite adverse consequences (Rosenthal & Lesieur, 1992).

The term *problem gambling* is used in a variety of ways. In some situations (primarily in population research), its use is limited to those whose gambling-related difficulties are less serious than those of pathological gamblers. In most situations, this term is used to indicate *all* of the patterns of gambling behaviour that compromise, disrupt or damage personal, family or vocational pursuits (Cox et al, 1997; Lesieur, 1998). In the Canadian context, problem gambling has been defined as “gambling behaviour that creates negative consequences for the gambler, others in his or her social network, or for the community” (Ferris & Wynne, 2001). Patton et al (2002) note that this definition is comprehensive in that it applies to others affected, as well as to the individual gambler, and includes a range of harmful consequences that extend beyond an individual’s own difficulties with gambling. An Australian definition of problem gambling as “a chronic failure to resist gambling impulses that results in disruption or damage to several areas of a person’s social, vocational, familial or financial functioning” incorporates both the notion of an underlying condition (loss of control) as well as its consequences (harms) (Blaszczynski, Steel & McConaghy, 1997). However, from all of these perspectives, pathological gambling can be regarded as one end of a continuum of gambling-related problems. Given international acceptance of these broadly similar definitions, it seems reasonable to adhere to this definition in the present report as well.

From a public health perspective, problem gamblers, as well as those who score even lower on problem gambling screens (sometimes referred to as *at-risk* gamblers), are of as much concern as pathological gamblers because they represent much larger proportions of the population than pathological gamblers alone. Problem gamblers and at-risk gamblers are also of interest because of the possibility that their gambling-related difficulties may become more severe over time. Problem and at-risk gamblers are of further interest because of the likelihood that their gambling can be more easily influenced by changes in social attitudes and public awareness (Castellani, 2000; Shaffer, Hall & Vander Bilt, 1999).

Theories of problem and pathological gambling

Many researchers have commented on the numerous definitions of problem gambling that have been proposed. Neal et al (2004) observe that definitions of problem gambling tend to fall into one of several categories. These include problem gambling as a medical disorder or mental health problem, problem gambling as an economic activity, gambling as a continuum from non-gambling to highly problematic gambling, and problem gambling defined in terms of harm to the individual and others. This last definition is the broad approach taken by the Gambling Act 2003 whereby harm means:

- a) harm or distress of any kind arising from, or caused or exacerbated by, a person’s gambling; and
- b) includes personal, social, or economic harm suffered -
 - i) by the person; or
 - ii) the person’s spouse, partner, family, whanau, or wider community; or
 - iii) in the workplace; or
 - iv) by society at large.

Each of these perspectives has strengths and weaknesses. For example, the strengths of the view of problem gambling as a mental health problem are that it characterises problem gambling in relatively precise terms, provides the basis for measures that are replicable, reliable and sensitive to different conditions and appears to work well in clinical settings. Weaknesses of this view are the relatively arbitrary division between diagnosis and non-diagnosis, lack of evidence for an underlying pathology, and relatively poor fit in assessing the effectiveness of treatment. The strengths of the view of problem gambling as a continuum are that gambling is treated dimensionally rather than categorically which makes this perspective particularly useful in the assessment of problem gambling intervention and treatment. Weaknesses of this view are lack of conceptual clarity, difficulties for use in diagnosis, measurement, replication and research, and the lack of empirical evidence to support the notion of linear progression along a continuum. Strengths of the view of problem gambling defined in terms of harm are that this broader approach can still encompass clinical concerns and its usefulness in monitoring service usage. The critical weakness of the view of problem gambling defined in terms of harm is that lack of precision leads to difficulties in operationalising and inadequacy for objective measurement, replication and research.

A recent model that has attracted substantial attention in the gambling studies field is the 'pathways model' proposed by Blaszczynski and Nower (2002). Based on data from problem gamblers seeking treatment, this model distinguishes three major subgroups of problem gamblers, whose difficulties display common features but are influenced by different factors. They identify 'behavioural conditioning' associated with certain forms of gambling as a necessary condition for the development of gambling problems. Behavioural conditioning leads to high levels of gambling participation and cognitive distortions related to the probability of winning and a sense of personal skill or control. Given the structure of gambling and gambling odds, losses and more significant losing streaks occur for many gamblers and some regular gamblers chase losses. Chasing contributes to further losses, debt and further chasing, as well as other behaviours and consequences that define problem and pathological gambling.

Blaszczynski and Nower (2002) maintain that this pathway to problem gambling occurs in many people who lack major predisposing psychopathology or other individual risk factors. While these 'behaviourally conditioned' problem gamblers often experience high levels of anxiety, depression and alcohol misuse, these characteristics are a consequence of problem gambling rather than significant contributing factors. Relative to their other two groups of problem gamblers, Blaszczynski and Nower (2002) claim that 'behaviourally conditioned' problem gamblers have less severe gambling problems, fluctuate over time between heavy and problem gambling, readily seek and comply with treatment, display low levels of psychological disorder following treatment and more often return to non-problematic gambling.

'Emotionally vulnerable' problem gamblers differ from 'behaviourally conditioned' problem gamblers in that many have significant pre-existing vulnerabilities including "pre-morbid anxiety and/or depression, a history of poor coping and problem-solving skills, and negative family background experiences, developmental variables and life events" (Blaszczynski & Nower, 2002: 492). Gambling is attractive to these individuals because it can temporarily reduce negative emotional states and meet specific psychological needs. Relative to 'behaviourally conditioned' problem gamblers, Blaszczynski and Nower argue that 'emotionally vulnerable' problem gamblers have higher levels of psychopathology, especially depression, anxiety and alcohol dependence. They also claim that these individuals are more resistant to changing their problematic gambling behaviour and less able to return to non-problematic gambling.

'Antisocial impulsivist' problem gamblers are similar to the emotionally vulnerable group in that both experience a variety of psychosocial and biological vulnerabilities. Blaszczynski and Nower (2002) claim that they differ by having signs suggestive of neurological or neurochemical dysfunction, as well as features of impulsivity, attention deficit disorder and antisocial personality. Additionally, independent of their problem gambling, this group experiences a variety of behavioural problems including irritability, substance misuse/dependence, suicidality and criminal offending. These problems may interact with, and be exacerbated by, emotional, interpersonal and gambling problems. Family histories of alcohol misuse and antisocial problems are typical and gambling and gambling problems generally commence at an early age. Blaszczynski and Nower (2002) also believe that this group is particularly reluctant to seek treatment and has poor compliance and outcomes.

Support for the 'pathways model' comes from recent genetic and neurobiological research. Genetic studies of pathological gambling support the notion that there are clinically significant, inheritable risk factors for pathological gambling. These factors may determine one's initial emotional response to gambling or code for a predisposition to impulsivity/addictive behaviours. They may also be responsible for an inability to control behaviour or an inability to adapt and learn from losing (Slutske et al, 2000, 2001; Walters, 2001; Winters, 1999). Neurobiological research has identified differences between pathological gamblers and controls in the dopamine, serotonin and norepinephrine systems that control decision-making, reward processing and information processing (Comings et al, 2001; Ibanez et al, 2000, 2003; Perez et al, 1999). These studies suggest that, at least in some cases, pathological gambling may be associated with deficiencies in the brain's reward systems (Chambers & Potenza, 2003; Potenza, 2001). These would most likely be the 'antisocial impulsivist' problem gamblers described by Blaszczynski and Nower (2002).

Additional support for the 'pathways model' comes from several recent studies of youth. One series of studies of adolescents in school settings found that some adolescent problem gamblers (primarily males) have higher levels of impulsivity than non-gamblers and gamblers free of problems while other adolescent problem gamblers (primarily females) have significantly higher rates of depression, suicidal ideation and suicide attempts (Derevensky & Gupta, 2004; Nower, Derevensky & Gupta, 2004). These could be considered analogous to the 'antisocial impulsivist' and the 'emotionally vulnerable' problem gamblers from Blaszczynski and Nower's (2002) treatment cohort.

A recent prospective study that followed 903 Montreal boys from ages 11 to 17 years identified three distinct groups on the basis of their trajectories of gambling involvement (Vitaro et al, 2004). 'Low gamblers' (62% of sample) had minimal gambling involvement from age 11 to 17 years. 'Chronic high gamblers' (22%) had started gambling by age 11 and maintained or increased their involvement over the course of the study. 'Late onset gamblers' (16%) did not gamble before age 13 but rapidly increased their involvement to match 'chronic high gamblers'. At age 17, only 4% of the low gambler group was assessed as having some degree of problem gambling in contrast to 20% of the chronic high gamblers and 15% of the late onset gamblers.

Although Vitaro et al (2004) do not refer to the pathways model, their data suggest that, like 'antisocial impulsivist' problem gamblers in treatment, the 'high chronic gambling' trajectory may rest on personal predispositions towards risky gambling as part of a broad suite of risk taking behaviours. On the other hand, the 'late onset gambling' trajectory may be more closely linked to 'behaviourally conditioned' or 'emotionally vulnerable' problem gambling, with family or peer-related factors more strongly implicated in the development of gambling problems in this group. While hardly definitive, demonstration that some personality characteristics are present prior to adolescence strengthens theoretical arguments that they are causally implicated in problem gambling development.

Despite emerging support from a variety of studies, the 'pathways model' remains a theoretical framework that requires substantial further validation. Several research teams in Canada and the United States are beginning work to test the validity of this framework with adults and adolescents and assess its implications for screening, assessment and treatment of problem gambling. It remains to be seen whether this theory of problem gambling development and resolution will withstand sustained scientific scrutiny.

Risk factors associated with problem gambling

In order to ensure that assessments are made of the full range of difficulties experienced by problem gamblers, it is helpful to consider the range of risk factors that are associated with problem gambling and which may affect an individual's presentation in a helping context. Although there are a range of biopsychosocial factors that are correlated with problem gambling, the focus in the present context is primarily on a range of psychological factors that determine how people interact with the environment and with others and how they view themselves and the world. Personality traits, ways in which people manage stressful events, and comorbid psychiatric disorders are all important psychological factors related to the development of pathological gambling.

Comorbidity

Like other addictive disorders, problem and pathological gamblers have much higher rates of co-occurring psychiatric conditions and substance use disorders than are found in the general population. Rates of these disorders are particularly high among pathological gamblers, both clinically and in the general population. For example, two recent national surveys in the U.S. found rates of alcohol and substance dependence among problem and pathological gamblers in the general population that are approximately ten times higher than among low risk gamblers and non-gamblers (Gerstein et al, 1999; Welte et al, 2001). There is also evidence that mood disorders, primarily major depression, frequently co-occur with problem and pathological gambling (Gerstein et al, 1999; Specker et al, 1996). The co-occurrence of pathological gambling and attention deficit hyperactivity disorder (ADHD) parallels research reporting ADHD in people with other addictions (Ozga & Brown, 2000; Rounsaville et al, 1991; Rugle & Melamed, 1993). Finally, comorbid personality disorders (including borderline histrionic, narcissistic and antisocial personality) are extremely high, ranging from 25% to 93% among pathological gamblers in treatment (Rosenthal & Fong, 2004).

There are several theories as to why comorbid disorders are so common in pathological gamblers. There is disagreement about whether these disorders are caused by the same biological and psychological risk factors or whether one disorder causes the other (i.e. depression causes pathological gambling or vice versa). In assessing the effectiveness of interventions for problem and pathological gambling, it is important to understand not only why comorbid conditions are so common but whether they precede or follow the development of pathological gambling.

Personality traits

There is research suggesting that certain aspects of personality development, including impulsivity and competitiveness, can predispose toward pathological gambling. However, simply having these personality traits is not enough to 'cause' pathological gambling nor does an absence of these traits protect from the development of gambling problems.

Pathological gambling is classified as an impulse control disorder and it is important to understand precisely how impulsivity, which contains elements of risk-taking, sensation seeking and arousal, contributes to loss of control over gambling. Research in clinical settings has shown that pathological gamblers tend to be highly impulsive compared to healthy controls and that pathological gamblers are less likely to think about future

consequences and are more likely to act in the moment (Blaszczynski et al, 1997; Petry, 2001; Vitaro et al, 1999).

Sensation seeking tends to be high among casino and race track gamblers and low among electronic gaming machine players. The difference seems to conform to a distinction that is made in the gambling studies field between those who play competitive, skill-based games ('action seekers') and those who play non-competitive games primarily based on luck ('escape gamblers') (Lesieur, 1984; Lesieur & Blume, 1991a). This difference also seems to conform to the distinction made by Blaszczynski and Nower (2002) between 'antisocial impulsivist' problem gamblers and 'emotionally vulnerable' problem gamblers. Problem and pathological gamblers who are sensation seekers are more apt to be early onset male gamblers who wager primarily on competitive skill-based games and are likely to have other addictions involving risk or danger including alcohol, drugs and sex. Problem and pathological gamblers who are escape seekers tend to be late onset female gamblers who wager primarily on gaming machines.

Stress and coping

Addictions research has made major strides in recent years in demonstrating the contributions of internal and external stressors in the initiation and maintenance of substance use disorders. While gambling itself can be a stressful activity, pathological gamblers frequently report gambling in order to escape life stress. Research on the relationship between pathological gambling and stress is in its infancy. However, abnormal responses to stress may be precipitating factors in the creation of pathological gambling and early interventions for problem gambling that focus on stress reduction may be helpful in preventing full blown development of the disorder.

Research into mood disorders has linked early adverse experiences as a contributing factor to the development of depression as well as a mediator of treatment response (Heim et al, 2004). Recent research by Petry et al (in press) has found high rates of childhood maltreatment, including emotional abuse and neglect, physical abuse and neglect, and sexual abuse among male and female treatment-seeking pathological gamblers. Furthermore, the severity of childhood maltreatment was significantly and independently associated with earlier age of onset of gambling and increased severity of gambling problems. These results suggest the importance of further investigation into the role of childhood maltreatment in the development of pathological gambling as well as the need for research on resiliency factors shown by some who experience childhood maltreatment but do not develop addictive disorders such as pathological gambling.

Finally, there is a body of evidence suggesting that stressful life events can transition social gamblers into pathological gamblers (Roy et al, 1988; Taber et al, 1987). In addition to triggering gambling problems, life events may be a direct result of gambling problems, creating a cycle of stress, relapse to gambling, more stress and then more gambling (Hodgins & el-Guebaly, 2000).

Coping (or defence) mechanisms are dynamic processes that are used to resolve psychological conflicts. Such mechanisms are learned responses to stress that people use to minimise uncertainty or emotional pain. Pathological gamblers are more likely than non-problem gamblers to make use of a range of coping mechanisms that are considered immature and counterproductive including avoidance, procrastination and dissociation (Brown, 2002; Diskin & Hodgins, 1999; Jacobs, 1988; Rosenthal, 1996, 2005). Pathological gamblers appear to be more boredom-prone although the relationship between boredom susceptibility, depression and problematic gambling requires further exploration. Finally, studies have demonstrated that gambling in general is highly arousing and there is research suggesting that

pathological gamblers are motivated by the excitement of gambling rather than by the desire to win money (Anderson & Brown, 1984).

Learning theories

Some researchers believe that addictive behaviours occur as a direct result of learned experiences. While learning theories are likely to be useful in understanding pathological gambling, much more research is needed in this area. Gambling activities operate directly on the principles of intermittent reinforcement, one of the most effective approaches to perpetuating behaviour. Gambling also promotes cognitive distortions and irrational thinking, an area that has received far more research attention (Gilovich, 1983; Ladouceur & Walker, 1996; Langer, 1975; Toneatto et al, 1997).

What remains unclear is exactly how cognitive distortions are acquired and maintained although we can speculate that these distortions probably arise in response to a combination of personality traits, adaptation strategies and biological mechanisms that are responsible for learning. Further research is needed on the relationship between specific forms of gambling and the acquisition of cognitive distortions, as well as the identification of modifiers of cognitive distortion.

Screening, assessment and diagnosis

Screening is a vital tool in the public health armamentarium that can serve multiple purposes. Screening can be a means of identifying disease in people who may not yet have any signs or symptoms. Screening can provide an indication of the severity of a disorder in an individual. Screening can serve a predictive purpose in identifying individuals who are at risk of developing a disorder in the future. Screening can provide an indication of the type of intervention needed to treat the disorder. Screening can also serve a 'triage' purpose, indicating what further assessment or action may be required (Thomas et al, 2003).

As the foregoing demonstrates, distinctions are often made between the functions of *screening*, *assessment* and *diagnosis*. For example, LaPlante and Shaffer (2002) argue that these aspects of the evaluation of problem gambling serve different purposes in very specific settings. They view screening as "an informal check" that is done without the aid of a clinician or other health professional. Assessment is a more formal procedure generally carried out by clinicians to determine whether treatment seekers require further diagnostic evaluation. Diagnosis, the most formal type of evaluation, is used by trained professionals to guide treatment strategies and is most often based on the DSM diagnostic criteria for pathological gambling.

LaPlante and Shaffer (2002) view the evaluation of problem gambling through a clinical lens. However, evaluation of problem gambling also takes place in other settings, most notably in population research. For example, Gaeta (2005) distinguishes between *screening* tests and *diagnostic* tests. In Gaeta's view, screening tests are used with persons who are asymptomatic but may have risk factors for a disease or in situations where the likelihood of a given individual being affected is small. These tests are often used in situations where time is limited and the skills and knowledge to make a diagnosis are not available. Diagnostic tests are used with persons who have already exhibited signs of possible illness or in contexts where the proportion of affected persons is likely to be high. Other differences between screening and diagnostic tests include the cost of employing the test and the need for specialised skills and knowledge in applying the test (Dawe & Mattick, 1997).

Neal et al (2004) identify four principal functions of screening or assessment tools that apply differently in different contexts. The first important function of measurement tools is *identification*, which can involve two stages of assessment - namely, screening followed by diagnosis. The second important function of measurement tools is *classification* which often

involves dividing people into two groups, those with and those without the disorder. However, classification can also differentiate levels of severity or the likelihood of developing a severe problem in the future. The third important function of measurement tools is *descriptive* which, in the case of problem gambling, generally relates to the question of whether behaviours or consequences are deemed more important or whether these dimensions are given equal weight. The fourth important function of measurement tools is *therapeutic*, which refers to the need for instruments that provide clinicians with a description of the types of problems that must be addressed, the sorts of intervention that might be most effective and some way to detect changes in the gambler's status.

As Neal et al (2004) note, the purpose of screening is likely to differ according to the context in which the assessment is employed - determining broad trends in problem gambling in the community versus clinical tests designed to determine the most appropriate course of treatment. Another important difference in these contexts relates to the base rate of the disorder - very low in population studies and quite high in some clinical populations.

The first question to ask in the present context is: how is problem and pathological gambling best defined? The next question is: how is this definition best operationalised? A third question is: which problem gambling screens and other general health measures best assess the critical dimensions of problem and pathological gambling, as these relate to the New Zealand context? A final question is: how much time and skill are required to administer these tests in a variety of different contexts?

Operationalising problem gambling

Across jurisdictions and contexts, problem and pathological gambling has generally been defined as gambling behaviour that is out of control (whether continuously or episodically) and that results in harms in other important areas of the individual's life, including family, employment and finances. Given this broad definitional agreement, it is probably important to include items that assess both loss of control and harms related to a person's gambling in operationalising assessments of the disorder.

In the present context, the focus is on clinical assessment of problem gambling in a range of settings, including the helpline and in primary care as well as in specialist programmes. Given the clinical focus, there is likely to be an emphasis on the diagnosis of problem and pathological gambling although given the emphasis in the New Zealand and Australian context on identifying and addressing 'harm' more generally, there is likely to be interest in describing both gambling behaviour and its consequences as well as in differentiating levels of severity rather than simply distinguishing 'cases' from 'non-cases'. Finally, it would be important in this context to select one or more instruments that are effective in detecting therapeutic change.

Beyond the uses of screening tools, there is the question of effectiveness. A large number of recent publications have critically reviewed the characteristics thought to be essential for effective assessment (e.g., Battersby et al, 2002; Ben Tovim et al, 2001; Dickerson et al, 1997; Govoni, Frisch & Stinchfield, 2001; Jackson et al, 2003; Lesieur, 1994; Neal et al, 2004; Orford, Sproston & Ehrens, 2003; Walker & Dickerson, 1996; Wenzel et al, 2004). The fundamental assumption shared by all of these researchers is that assessment tools must possess reliability, validity, classification accuracy, practicality and applicability (Jackson et al, 2003).

Reliability generally refers to the consistency of assessment such that the method yields almost the same result on each occasion. Reliability is most often assessed on the basis of consistency, repeatability and stability of performance. There is a range of statistical tests of reliability, including test-retest and inter-rater reliability. There is also the question of internal

consistency, such that all of the items measure the same construct. *Validity* refers to the extent to which the measure is actually capturing the construct of interest. There are many ways in which validity can be assessed including construct validity, classification accuracy, appropriateness of validation samples, dimensionality, external validity, concurrent validity, and item variability. *Classification accuracy* examines how well a measure performs in identifying those with and without the disorder and is generally assessed with a variety of techniques examining sensitivity, specificity, false positive and false negative rates, and positive and negative predictive power. *Practicality* refers to the ease with which different users of assessment tools are able to use these measures. Primary concerns related to practicality include the length of the assessment, ease of administration, and the cost of the assessment. *Applicability* is the degree to which existing measures can be applied in a variety of contexts and in different populations. Most problem gambling assessments are designed to be suitable for the entire adult population. However, little work has been done to examine whether items in these assessments are equally relevant or meaningful to all groups in the population. Gender, age, culture, and marital and occupational status are all factors that may influence the interpretation of specific items used in problem gambling assessments.

An important topic of debate in the gambling studies field relates to the question of classification accuracy. Classification errors are to be expected whenever screening instruments are used to detect disorders, whether physical or mental. False negatives (failing to detect problems when they are present) are of particular concern in clinical situations. False positives (classifying someone as having problems when they do not) are generally of less concern if the initial screening is followed by more detailed assessment. In clinical settings, where a high percentage of people being assessed actually experience the problem in question, almost all screens generate relatively few false positives or false negatives. In community surveys, where base rates are low, most clinically derived measures generate large numbers of false positives. However, false negative rates also tend to increase and may in fact balance out even very high false positive rates (Abbott & Volberg, 1999). In the present case, where we are considering instruments for use with help-seeking individuals in a variety of settings, all of the problem gambling screens under consideration are likely to perform adequately.

Gambling problems exist on a continuum and vary in severity and duration with pathological gambling lying at the most severe end of the continuum. Another particularly contentious topic in the study of problem gambling is the question of the most appropriate cut-off scores to use with different problem gambling screens. Across different settings and countries, researchers and clinicians have sometimes chosen to use differing cut-off scores to classify patients and survey participants. Particularly among population researchers, critics have argued that lower cut-off scores produce high false positive rates and generate systematically biased prevalence estimates. Another occasional practice among gambling researchers has involved changing the wording of scale items or omitting some items altogether.

While it is normal practice when developing clinical screening tests to carefully consider and weigh the benefits of increasing cut-off scores against the cost of generating more false negatives, the optimum cut-off scores in prevalence surveys would produce a balance of false positives and false negatives. In developing screening tests, great care is generally taken to test the items cognitively. While problem gambling screens may not have been developed to the highest possible standards, it is important that clinicians and researchers not make changes to the items or to the scales themselves. Such changes compromise our ability to compare results based on these screens across studies and across time.

Problem gambling measures

The tools that professionals use reflect both the state of their research fields and larger social, political and economic contexts (Alonso & Starr, 1987). Historically, standardised measures and indices have often emerged in situations where there is intense distrust among stakeholders of the motives of other interested parties and a perceived need for public action. Examples include the emergence of measures of 'public utility' in France in the mid-1800s, intelligence testing in Britain and the U.S. in the early 1900s and the development of cost-benefit analysis in the U.S. in the 1950s (Porter, 1995; Zenderland, Ash & Woodward, 2001). In addition to reflecting specific socio-historical contexts, measurement tools reflect theories, either implicit or explicit, about the phenomena which they purport to measure.

In the first critical review of problem gambling instrumentation, published 15 years ago, only two screens for problem gambling could be identified (Volberg & Banks, 1990). There are now over 20 problem gambling instruments that have been developed for a variety of purposes including screening, assessment, diagnosis, treatment planning and treatment outcome monitoring as well as epidemiological surveys and other types of population-based research. In the sections that follow, available information about the performance of many of these screens is presented, organised in chronological order.

Early problem gambling screens

Gamblers Anonymous 20 Questions (GA-20)

The Gamblers Anonymous 20 Questions is a series of items developed by the mutual help group to assist new members in deciding whether they had a serious gambling problem. Approximately half of the items relate to the consequences of gambling and the remainder are primarily behavioural items. Each item is scored 'Yes/No' and all of the items refer to lifetime experience. A score of seven or more indicates that the respondent is likely to be a compulsive gambler.

An early study of the performance of the GA-20 in a group of 60 male community volunteers found that responses to these items correlated strongly with frequency of gambling behaviour and dissociative experiences as well as with scales assessing sensation seeking (Kuley & Jacobs, 1988). A more recent study of the performance of the GA-20 among post-secondary students in Montreal concluded that this screen was the least restrictive of three problem gambling measures tested, although there was a high degree of agreement between all of the measures, particularly for males (Derevensky & Gupta, 2000).

The only thorough evaluation of the psychometric properties of the GA-20 among adults was carried out in Spain (Ursua & Uribebarrea, 1998). These researchers administered the GA-20 to 127 gamblers who attended Gamblers Anonymous meetings in Madrid and to 142 non-problem gamblers from the community. This study showed that the GA-20 had high internal consistency, good concurrent validity with the South Oaks Gambling Screen (SOGS), good dimensionality, and high sensitivity and specificity.

Neal et al (2004) conclude that while the GA-20 is a valid, coherent and reliable screen, it is unlikely to be useful in large-scale prevalence surveys or as an indicator of therapeutic change. There is considerable overlap with the more widely used SOGS which means that the GA-20 is subject to similar criticisms. For example, the scale contains numerous items that relate to behaviours and consequences characteristic of middle-class European males and may perform less satisfactorily with more diverse populations.

Institute for Social Research (ISR) Measure

The first professionally developed measure to assess problem gambling was designed for use in the first U.S. national gambling survey (Kallick et al, 1976). This survey was carried out

prior to the development of formal psychiatric diagnostic criteria for pathological gambling. The research team used membership in Gamblers Anonymous as the criterion for 'caseness'. The ISR measure was developed by selecting 119 items from extant personality tests and administering them in a pilot test to samples of Gamblers Anonymous and Protestant church members. Discriminant function analysis was employed to select items that provided the best separation between the groups.

The final measure used in the national survey consisted of 18 items that classified 'controls' (church members) correctly 95% of the time and 'cases' (GA members) 90% of the time. The responses of participants in the survey who appeared to have the same characteristics as GA members underwent "clinical analysis" to "sort out those whose betting also indicated a probable gambling problem" (Kallick et al, 1976: 73). Beyond the foregoing, the psychometric properties of the ISR were not investigated. The measure does not appear to have been used to identify people with gambling-related problems in any subsequent research or in other contexts.

Inventory of Gambling Behaviour & Cumulative Clinical Signs Method

The Inventory of Gambling Behaviour (IGB) is an 81-item list of behavioural indicators of problem and pathological gambling, developed at one of the first formal treatment programmes for pathological gamblers in the United States (Zimmerman, Meeland & Krug, 1985). The IGB was subsequently modified by Culleton (1989) and re-named the Cumulative Clinical Signs Method (CCSM). The CCSM includes 23 items divided into five groups or 'domains'. If any item within a domain is endorsed, the respondent is considered positive for that domain. Although the screen is made up of 23 items, scores on the CCSM range from zero to five. Culleton (1989) used an odds-ratio approach to determine that a cut-off score of three differentiated pathological gamblers from non-pathological gamblers in two state-level surveys in the United States.

The CCSM was reviewed by Volberg and Banks (1990) who compared its performance with the original South Oaks Gambling Screen (SOGS). This review focused on the fact that the SOGS performed as well as the CCSM in many regards and was easier to score and interpret. Another important issue highlighted by Volberg and Banks (1990) concerned the question of whether the items contained in the various CCSM domains were independent - an assumption that would affect the ability of the CCSM to reliably distinguish between pathological and non-pathological gamblers. Neal et al (2004) comment favourably on the scoring method developed for the CCSM and note that the closest approximation to this approach is the HARM measure developed by the Productivity Commission (1999) in the national survey in Australia.

Addiction Severity Index for Gambling (ASI-G)

The original Addiction Severity Index is a well recognised assessment tool that has been used internationally to identify individuals with alcohol and other substance abuse problems. The original ASI includes detailed assessments of various forms of substance misuse and related harms in seven different domains. All of the items are scored in a binary fashion. Lesieur and Blume (1991b) developed a five-item module for the ASI (ASI-G) to assess frequency of gambling and expenditures on gambling as well as subjective states such as experience of 'gambling problems' and importance of treatment. Petry (2003a) has argued that this approach is important because other problem gambling screens and scales do not provide an objective index of gambling severity.

The psychometrics of the ASI-G were first tested with a group of 119 patients seeking help at an inpatient addiction treatment facility in the U.S. The ASI-G demonstrated acceptable internal consistency and concurrent validity in relation to the SOGS. More recently, Petry (2003a) administered the ASI-G to four different samples, including 131 individuals

diagnosed with pathological gambling according to the DSM-IV, 212 individuals receiving cognitive-behavioural therapy for an addiction problem (this could include gambling), 45 social gamblers and 209 individuals receiving substance abuse treatment. In this test, the ASI-G demonstrated high internal consistency and dimensionality as well as good test-retest reliability. Scores correlated well with both the SOGS and the National Opinion Research Center DSM-IV Screen for Gambling Problems (NODS), demonstrating that the ASI-G had good concurrent as well as discriminant validity.

Neal et al (2004) note that the ASI-G was designed for administration in treatment settings although they argue that the scale could be used in research in the general population. The measure is short and easy to administer and provides a potentially useful way of differentiating severity by combining subjective impressions with objective assessments of gambling involvement. One obvious limitation of the scale is that it assumes that people are able to provide accurate estimates of expenditure. Another challenge is that the item assessing importance of treatment may lack relevance in non-treatment settings.

The DSM criteria and screens

While internationally controversial, the DSM criteria for pathological gambling form the basis for the great majority of screening and assessment tools developed in the gambling studies field. The earliest published criteria for the disorder, published in the DSM-III in 1980, mirror GA notions of 'compulsive' gambling as a chronic, progressive illness with escalating disruption and harm to personal, family and vocational pursuits. These criteria largely derive from retrospective accounts by people who participated in GA groups and early inpatient treatment programmes for compulsive gamblers in the U.S. during the 1960s and 1970s. These people were predominantly middle class, middle aged white males who had developed problems with track betting and card games (Volberg & Steadman, 1988).

Dissatisfaction with the original criteria led to significant changes being made when the DSM as a whole was revised in 1987 and again in 1994. Concerns focused on the emphasis in the criteria on consequences common to middle aged white men that resulted in failure to adequately detect gambling problems among other population sectors. This emphasis also failed to tap features of gambling behaviour per se that underlie problem development. Some clinicians questioned the exclusion of people with antisocial personality disorder; others argued for the inclusion of items assessing gambling in ways consistent with current notions of addiction including cravings, tolerance and withdrawal (Abbott & Volberg, 2006).

In 1994, the DSM-IV adopted a new set of criteria for the diagnosis of pathological gambling. The changes made to the psychiatric criteria for pathological gambling incorporated empirical research that linked pathological gambling to other addictive disorders like alcohol and drug dependence (American Psychiatric Association, 1994). Although Neal et al (2004: 66) argue that the DSM-IV criteria "were not directly based on empirical evidence", there was in fact a significant effort made to develop an evidential basis for these criteria. In developing the DSM-IV criteria, 222 self-identified pathological gamblers and 104 substance abusers who gambled socially tested a large pool of items gathered from existing screens and treatment professionals (Lesieur & Rosenthal, 1998). Discriminant analysis was used to identify the items that best differentiated between pathological and non-pathological gamblers. While the results from this sample indicated that a cut-off of four points was appropriate, the American Psychiatric Association established a diagnostic cut-off of five points. Pathological gambling is now defined as persistent and recurrent maladaptive gambling behaviour as indicated by five or more of 10 criteria, with the reservation that the behaviour is not better accounted for by manic episodes - a reservation added somewhat as an afterthought, as it was not part of the underlying research on which the DSM-IV criteria were based.

Although the number and nature of diagnostic criteria, as well as exclusion criteria, have changed with successive DSM revisions, pathological gambling continues to be regarded as a chronic or chronically relapsing disorder. Accordingly, and in contrast to most DSM-IV disorders, there is no requirement to establish that the requisite number of signs or symptoms are present currently (e.g. during the past month or year) or that they clustered together at some time in the past. The diagnosis is based on an individual's cumulative experience of gambling-related problems. In contrast to some other disorders prone to relapse, there is no provision for an 'in remission' qualifier to diagnosis. It also remains within the category of impulse control disorders, despite the increasing resemblance to addictive disorders (Abbott & Volberg, 2006).

Before considering psychometric versions of DSM pathological gambling criteria, it must be stated that while DSM-IV diagnoses are widely regarded as the current 'gold standard' for psychiatric disorders against which screening measures are validated, in few cases are these diagnoses subject to objective verification. In the case of pathological gambling, the criteria and cut-off scores were arrived at predominantly by clinician opinion rather than empirical research. Indeed, as mentioned, when the process of determining the cut-score was assisted by research, the findings were disregarded. Consequently, it should not be assumed that psychiatric diagnoses are more valid than other measures of problem gambling. It should also be noted that while clinical interviews typically yield much more information than a single screening or psychometric instrument, their interpretation is usually more subjective. In other words, it should not be assumed that interview-based diagnoses are objective and highly reliable. Nor should it be assumed that diagnoses based on clinical interviews are more reliable than assessments from objective psychological tests.

South Oaks Gambling Screen (SOGS and SOGS-R)

The original South Oaks Gambling Screen (SOGS), closely based on the new diagnostic criteria for pathological gambling, was developed to screen for gambling problems in clinical populations (Lesieur & Blume, 1987). The 20 weighted items on the SOGS include hiding evidence of gambling, spending more time or money gambling than intended, arguing with family members over gambling and borrowing money from a variety of sources to gamble or to pay gambling debts. In developing the SOGS, specific items as well as the entire screen were tested for reliability and validity with a variety of groups, including hospital workers, university students, prison inmates and inpatients in alcohol and substance abuse treatment programmes (Lesieur & Blume, 1987; Lesieur, Blume & Zoppa 1986; Lesieur & Klein 1985).

The original development study found the SOGS demonstrated satisfactory reliability and validity in four different samples, including Gamblers Anonymous members, university students, hospital inpatients and hospital workers. The screen was highly correlated with independent assessments by counsellors and demonstrated satisfactory classification accuracy (Govoni et al, 2001).

Neal et al (2004), like many other researchers, note that the SOGS is made up of a variety of different types of items, with nearly half of the items related to borrowing money and about a quarter of the items related to behaviours or attitudes toward one's gambling. These researchers note that the SOGS has a number of positive features, including a brief administration time and readily interpretable cut-off scores as well as a continuous scale that can be used to assess therapeutic change and which can be used in research studies. Across a broad range of studies, the SOGS has demonstrated acceptable internal consistency and high correlation with other measures of problem gambling and gambling-related harm. The original SOGS only yields a lifetime measure, reflecting the Gamblers Anonymous and subsequent DSM conceptualisation of pathological gambling as a chronic or chronically relapsing mental disorder.

The SOGS was quickly adopted in clinical settings as well as in epidemiological research. The SOGS was first used in a prevalence survey in New York State, U.S. (Volberg & Steadman, 1988). Since then, the SOGS and subsequent modifications of the original screen have been used in population-based research in more than 45 jurisdictions in Asia, Canada, Europe, Oceania and the U.S. (Abbott & Volberg, 1996, 2000; Bondolfi, Osiek & Ferrero, 2000; Lund & Norlund, 2004; Productivity Commission, 1999; Shaffer, Hall & Vander Bilt, 1999; Sproston, Erens & Orford, 2000; Volberg, 2001a; Volberg et al, 2001; Welte et al, 2001).

Most population studies of problem gambling have used the SOGS-R, or variants thereof, developed by Abbott and Volberg (1991, 1996) to provide measures of both current (past six months) and lifetime problem and probable pathological gambling. Individuals who responded positively to original SOGS (lifetime) questions were asked if this also applied during the past six months. In addition, the preliminary, non-scored section of the SOGS was expanded to collect more detailed information about gambling frequency and expenditure. While the New Zealand national prevalence and prospective studies incorporated a six-month time frame for the current items (Abbott, 2001; Abbott & Volberg, 1991, 1992, 1996, 2000; Abbott, Williams & Volberg, 1999, 2004; Volberg & Abbott, 1994), a 12-month frame has been the most frequently used in other jurisdictions. Further adaptations have included shortening the current frame to three months (mainly in treatment monitoring contexts) and dropping the lifetime component altogether (most notably in Australian studies but also in the recent British prevalence survey).

Use of the SOGS or SOGS-R with other measures in the same study has enabled investigation of how this well-established screen performs in relation to these newer instruments. For example, the SOGS or SOGS-R has been used in conjunction with a DSM-IV measure in a number of community surveys in North American jurisdictions as well as in national prevalence surveys in New Zealand, Sweden, the U.K. and the U.S. (Abbott, 2001; Cox, Enns & Michaud, 2004; Sproston et al, 2000; Volberg et al, 2001; Welte et al, 2001). These studies have generally found moderate to strong relationships between the SOGS-R and the DSM-IV measures. However, analysis of data from the British gambling prevalence survey indicated that while there is overlap between SOGS and DSM-IV measures and some resemblance between their underlying factor structures, they do not appear to be mapping exactly the same psychological terrain (Orford, Sproston & Erens, 2003).

The widespread use of the SOGS has been due, at least partly, to the great advantage of comparability within and across jurisdictions that came with use of a standard tool (Walker & Dickerson, 1996). Although there were increasingly well-focused grounds for concern about the performance of the SOGS in non-clinical environments, this tool remained the de facto standard in the field until well into the 1990s (Volberg, 2001a).

Beginning in the early 1990s, dissatisfaction with the SOGS grew, particularly among Australian and Canadian researchers. The main criticism of the SOGS was that this screen was developed and tested in a clinical setting and the characteristics of its performance in community samples were unknown (Walker & Dickerson, 1996; Wiebe, Single & Falkowski-Ham, 2001). However, this view ignores studies that did assess the SOGS and SOGS-R in general population contexts (Abbott & Volberg, 1991, 1992, 1996; Stinchfield, 2002). There were additional criticisms of the SOGS (Abbott & Volberg, 1996; Battersby et al, 2002; Thomas et al, 2003). Different researchers argued that:

- The SOGS did not clearly reflect the conceptualisation of pathological gambling included in the DSM
- The SOGS might not specifically target pathological gamblers since some of the items would be equally endorsed by regular gamblers

- The original lifetime frame of reference of the SOGS overestimated the current prevalence of gambling problems
- The SOGS was insensitive to culturally diverse contexts

Another criticism of the SOGS (as well as of the new DSM-IV criteria that were published in 1994) was that while these tools are useful in clinical settings, they were developed prior to the introduction and widespread distribution of electronic gaming machines and did not take into account unique aspects of this new gambling activity (Focal Research Consultants, 2001). While the SOGS has proved to be a convenient and useful screening tool and has been widely used in clinical settings as well as in research studies, the rising chorus of criticism and the publication of new diagnostic criteria in 1994 have increasingly led researchers and clinicians to seek out or develop alternative tools or to use the SOGS in conjunction with other measures (Govoni et al, 2001). In the discussion that follows, information on the performance of a number of these measures is presented.

Massachusetts Gambling Screen (MAGS)

The Massachusetts Gambling Screen (MAGS) is a brief seven-item screen developed by Shaffer, LaBrie, Scanlan and Cummings (1994). Although it was designed to measure gambling problems and to obtain accurate estimates of prevalence, it has not been widely used. Performance of the MAGS was examined in a survey of Boston-area adolescents although the screen is intended for use both with adolescents and adults. In the original development study, the MAGS was assessed in conjunction with a 12-item version of the DSM-IV criteria. The MAGS classifies respondents into non-problem, in-transition or pathological gamblers using a weighted scoring derived from discriminant function analysis. Although the MAGS demonstrated good internal consistency and high correlation with the DSM-IV score in the original development study, its performance in a subsequent survey of adolescents in New York State was less satisfactory (Volberg, 1998). The MAGS has not been widely adopted for use in clinical settings or population research.

Diagnostic Interview for Gambling Severity (DIGS)

The Diagnostic Interview for Gambling Severity is a version of the DSM-IV criteria intended for administration as a structured clinical interview (Winters, Specker & Stinchfield, 1997). The DIGS assesses the 10 DSM-IV criteria using 20 items. For each pair of items, a point is scored if an individual endorses at least one item of the pair. Items can be scored with either a lifetime or 12-month timeframe and a cut-off score of five leads to classification as a pathological gambler. There is some preliminary psychometric information on the performance of the DIGS indicating that the screen has good internal consistency as well as good criterion or external validity, as evidenced by strong correlations with specific measures of gambling involvement (frequency and expenditures). However, the DIGS has not been widely used outside Minnesota where it was developed.

Diagnostic Interview Schedule - Pathological Gambling Module (DIS)

In the 1980s, the earliest DSM-III based Diagnostic Interview Schedule included a gambling module. However, this module included only four questions in total, meaning that not all of the psychiatric criteria were assessed nor did the questions closely match the DSM-III criteria. No psychometric information has been published about this early problem gambling screen although the module was included in an early survey of problem gambling in Christchurch, New Zealand (Wells et al, 1989, 1992) and in the St Louis Epidemiological Catchment Area study in the U.S. (Cunningham-Williams et al, 1998). The questions were also included in an early survey of gambling and gambling problems carried out in Connecticut (Laventhol & Horwath, 1986).

According to Govoni et al (2003), a new module for assessing pathological gambling within the larger DIS is in the early stages of development. The GAM-IV uses 12 items to assess the

DSM-IV criteria separately for 11 different gambling activities (for a presumed total of 132 items). In a recent conference presentation, Cunningham-Williams et al (2003) found good agreement between the GAM-IV and independent clinician ratings for pathological gambling for five of the criteria but poor agreement for the remaining five criteria.

DSM-IV-MR (Multiple Response)

Between 1994 and 1998, Fisher (1996, 2000) developed a 10-item questionnaire version of the DSM-IV criteria. As with the DSM component of the GAMTOMS (see below), each item corresponds closely to a diagnostic criterion. All of the items have four response options (MR refers to 'multiple response') and are framed in the past 12 months. A total score of five is used as the cut-off to identify 'severe problem gamblers'. Individuals scoring three or four including at least one affirmative response to the last three DSM-IV criteria are classified as 'problem gamblers'. The screen was originally administered to casino patrons in the U.K. and found to have satisfactory internal consistency and acceptable concurrent validity (Fisher, 2000; Govoni et al, 2001).

A recent review of problem gambling measures asserts that there has been no validation of the DSM-IV-MR against other measures or in other populations (Neal et al, 2004). While the measure has not been validated against independently determined DSM-IV psychiatric diagnoses, it has been included in a variety of studies and quite a lot is known about its performance relative to other measures. In addition to a number of North American community studies (Abbott & Volberg, 1999) and the New Zealand prison surveys (Abbott & McKenna, 2000; Abbott, McKenna & Giles, 2000), this screen has been used in national prevalence surveys in New Zealand (Abbott, 2001) and Sweden (Volberg et al, 2001). In general, these studies found moderate to strong relationships between the SOGS-R and DSM-IV-MR. While there is high agreement between the two screens in the detection of serious problem gambling, more modest agreement is evident at levels below the established cut-off scores.

National Opinion Research Center DSM-IV Screen for Gambling Problems (NODS)

In 1998, the (U.S.) National Gambling Impact Study Commission contracted with the National Opinion Research Center at the University of Chicago (NORC) and its partners to collect data from a nationally representative sample of households about gambling behaviour and gambling-related problems (Gerstein et al, 1999)¹¹. The guidelines of the National Gambling Impact Study Commission specified that the DSM-IV criteria be used to identify respondents with gambling-related difficulties in the general population. This meant that the researchers could not use the SOGS. After reviewing other DSM-IV screens that were available, the study team elected to develop a new screen based closely on the DSM-IV criteria for diagnosing pathological gambling and designed specifically for administration in large survey samples. This screen is referred to as the NODS (the NORC DSM Screen for Gambling Problems). The screen is made up of 17 lifetime items and 17 past year items; several of the items are only administered if a preliminary screening question is endorsed and past year items are only administered if the corresponding lifetime item is endorsed.

One important step in developing the NODS was a field test with a national clinical sample of 40 individuals enrolled in outpatient problem gambling treatment programmes and an additional random telephone sample of 45 respondents in the Chicago metropolitan area. Ninety-five percent of the clinical sample scored five or more points on the lifetime NODS;

¹¹ In addition to the general population survey of 2,417 adults, research initiatives undertaken by the NORC study team included a national survey of 534 youths aged 16 and 17 years, intercept interviews with 530 adult patrons of gaming facilities, a longitudinal data base (1980 to 1996) of social and economic indicators and estimated gambling revenues in a random national sample of 100 communities and case studies in ten communities regarding the effects of large-scale casinos opening in close proximity.

the remaining two cases each scored four points. These results are very similar to those reported by Stinchfield (2003) using a different DSM-IV-based screen. The test-retest reliability of the NODS was examined in a half-sample of 44 cases drawn equally from the clinical and telephone pilot samples. The lifetime and past-year scores were found to be highly reliable ($r=0.99$ and 0.98 , respectively) (Gerstein et al, 1999). Based on the field test, the research team concluded that the NODS had strong internal consistency, retest reliability and good validity.

In addition to the U.S. national survey, the NODS has now been used in several state level prevalence surveys in the U.S. including Arizona, California, Florida, Nevada, North Dakota and Oregon and in a separate survey of older adults in Florida (Shapira et al., 2002; Volberg, 2001b, 2001c, 2002, 2003; Volberg & McNeilly, 2003; Volberg, Nysse-Carris & Gerstein, 2006). The NODS has also been used in prevalence surveys in Norway (Lund & Norlund, 2003) and the Spanish province of Galicia (Becoña, 2004). With the exception of California, all of the state level surveys have included both the SOGS and the NODS and work is underway by Volberg and her colleagues at NORC to assess the relationship between these two problem gambling screens.

The NODS is increasingly being used in North American clinical settings as an outcome measure. For example, Hodgins (2002, 2004) has used the NODS as an outcome measure in a study of formal treatment for gambling problems in Canada. In this study, the NODS demonstrated internal reliability as well as good dimensionality as a single construct with three important sub-factors, measuring negative behavioural consequences, preoccupation, tolerance and impaired control over gambling, and withdrawal and relief gambling (Hodgins, 2004). In Michigan, all individuals seeking treatment for problem gambling are required to endorse five or more items on the lifetime version of the NODS in order to qualify for state-funded counselling (Herrif, personal communication).

National Epidemiologic Survey on Alcohol and Related Conditions (NESARC)

The National Epidemiologic Survey of Alcohol and Related Conditions (NESARC) is a flagship U.S. national survey. Between 2001 and 2002, the NESARC collected data from a sample of 43,093 residents aged 18 years and over, from households and group quarters. The interview was based on the DSM-IV version of the Alcohol Use Disorder and Associated Disabilities Interview Schedule (AUDADIS-IV).

A 15-item module was used to assess the 10 diagnostic criteria for pathological gambling in the NESARC (Petry, Stinson & Grant, 2005). The approach taken by the research team required respondents to meet five of the 10 criteria for pathological gambling either in the past 12 months or in a preceding 12-month period. In the first published results, Petry et al (2005) note that the pathological gambling module of the AUDADIS-IV had high internal consistency and reliability. However, given the silence of the DSM on the question of the concurrence of symptoms in time as well as increasing evidence of a sub-clinical category of problem gambling (Stinchfield, 2003; Toce-Gerstein, Gerstein & Volberg, 2004), it appears that the requirement that respondents meet five DSM-IV criteria within a 12-month period may be too high.

National Comorbidity Survey - Replication, Gambling (NCS-R)

The U.S. National Comorbidity Survey, carried out between 1990 and 1992, was the first nationally representative mental health survey in the U.S. to use a fully structured diagnostic interview to assess the prevalence and correlates of DSM-III-R disorders. Between 2001 and 2002, the NCS Replication (NCS-R) was carried out with a new national sample of 10,000 respondents. With the goal of studying trends in a wide range of variables assessed in the baseline NCS and to obtain information about a number of new topics, an assessment of pathological gambling was included in the NCS-R.

The pathological gambling module in the NCS-R includes an assessment of gambling participation. For respondents who have ever gambled 100 or more times, this is followed by four gateway items that assess gambling difficulties related to interference with work, school or other obligations, repeated arguments with family, friends or others, concealing the extent of one's gambling from others and claiming to be winning when one is losing. If respondents endorse one or more of these items, an additional 14 questions assess preoccupation, tolerance, escape, chasing, illegal acts, borrowing money, loss of control and withdrawal.

The NCS-R pathological gambling module does not appear to correspond precisely with the DSM-IV criteria and there are as yet no published reports available regarding the performance of this module or its relationship to other, more widely available modules for assessing problem and pathological gambling.

Non-DSM screens developed for population research

Scale of Gambling Choices (SGC)

The Scale of Gambling Choices was developed by Dickerson and colleagues to provide specifically for the assessment of impaired control (Baron et al, 1995; Dickerson et al, 1990). The scale has been used in a variety of settings, including prevalence surveys in Australia and New Zealand and with a clinical sample (Delfabbro & LaCouture, 2003). There are several different versions of the scale which originally contained 18 items with five-point responses but, more recently, has included 12 items with eight of the items reverse scored (O'Connor & Dickerson, 2003). Both the original 18-item scale and the more recent 12-item scale have demonstrated good internal consistency and excellent concurrent validity with the SOGS.

Neal et al (2004) note that impaired control has been a somewhat controversial issue in the gambling literature because it is often difficult to ascertain whether and when an individual has indeed lost control over their gambling behaviour. The Scale of Gambling Choices was intended to operationalise the concept by assessing a variety of behaviours from which loss of control could be inferred. While these authors concede that the Scale of Gambling Choices can be useful in some research studies, there are some aspects of the scale that raise concerns. The scale appears to be primarily descriptive rather than explanatory and does not appear to be grounded in a clear theoretical framework. The scale does not provide clearly identified cut-off scores so that it is difficult to determine the point at which a person's impaired control may be problematic. Finally, these authors argue that the scale's impressive psychometric qualities may be the result of multiple items that are not adequately independent.

Victorian Gambling Screen (VGS)

In 1997, as a consequence of concerns raised about the appropriateness of using the SOGS in an Australian context, the Victorian Casino and Gaming Authority commissioned the development of a new problem gambling measure, the Victorian Gambling Screen (VGS) (Ben-Tovim et al, 2001). As with the SOGS and the Canadian Problem Gambling Index, a large pool of items was developed based on existing instruments and structured interviews with problem gamblers. This set of items was administered to 138 gamblers and problem gamblers. Content analysis was used to identify and remove items with very high or very low rates of endorsement. The reduced set of items was administered to a second sample of 261 gamblers and problem gamblers and 71 of these individuals were administered the SOGS, DSM-IV and a clinical interview to establish the classification accuracy of the VGS.

The VGS consists of 21 items that cluster into three factors including gambling related harm to self, gambling enjoyment and harm to partner. Each item is scored from zero to four and the optimum cut-off score was determined using ROC analysis to ensure the highest levels of sensitivity and specificity. However, only the Harm to Self scale (15 items) reliably differentiates between problem and non-problem gamblers. The VGS was found to be highly

correlated with the SOGS but provides more information about the nature and extent of gambling problems at the higher end of the range of scores.

Neal et al (2004) note that the VGS was well developed but argue that this screen does not overcome one of the principal limitations of the SOGS, namely the lack of a clearly articulated theoretical foundation. While the principal component of the scale is titled 'Harm to Self,' most of the items in this scale do not relate to harm but to attitudes and behaviours. Despite these concerns, Neal et al (2004) conclude that the VGS may be useful both in clinical settings and in community studies, including prevalence surveys, although it may be necessary to include a number of more objective behavioural items with the screen.

Canadian Problem Gambling Index (CPGI)

In 1997, an inter-provincial group of Canadian government agencies with responsibility for addressing problem gambling, commissioned the Canadian Centre on Substance Abuse to conduct a three-year study to clarify the concept of problem gambling in the general population, develop an operational definition to guide research, treatment and prevention, and design and test a new instrument for measuring problem gambling in non-clinical settings. The goal was to develop a more meaningful measure of problem gambling specifically for use in general population surveys that placed this disorder in a wider social and environmental context.

The research team developed an instrument called the Canadian Problem Gambling Index (CPGI) which was tested for its performance in a Canadian-wide survey that included a large general population sample, re-testing of a sub-sample of respondents from the larger survey, and clinical validation interviews with a separate sub-sample (Ferris & Wynne, 2001). The research team examined the reliability, validity and classification accuracy of the CPGI and concluded that the screen measured non-pathological gambling problems better than the SOGS.

The full CPGI includes over 30 items assessing gambling involvement, gambling problems, correlates and demographics. A subscale of nine scored items, the Problem Gambling Severity Index (PGSI), assesses problem gambling directly. These items include chasing losses, escalating gambling to maintain excitement (analogous to tolerance in other addictions), borrowing or selling to obtain money to gamble, betting more than one can afford, feeling guilty, being criticised by others, harm to health, financial difficulties to one's household and feeling that one might have a problem with gambling. With two exceptions (harm to health and financial difficulties to one's household) all of these items are drawn directly from the SOGS or from the DSM-IV criteria for pathological gambling. As the developers of the CPGI point out, this screen represents an evolution of older measures rather than something entirely new (Ferris & Wynne, 2001).

The full CPGI has been used in general population surveys in seven Canadian provinces including Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario and Saskatchewan as well as in Denmark and Iceland (British Columbia Ministry of Public Safety, 2003; Focal Research Consultants, 2001; Patton et al, 2002; Schrans & Schellinck, 2004; Smith & Wynne, 2002; Wiebe, Single & Falkowski-Ham, 2001; Wynne, 2002; Wynne, personal communication). The smaller subset of nine problem gambling items (PGSI) has been used in a national community mental health survey in Canada as well as in general population surveys in Queensland and Victoria, Australia (Marshall & Wynne, 2004; Queensland Policy Directorate, 2001; Wenzel et al, 2004). The PGSI is also now a required screen for all clients entering drug, alcohol and problem gambling treatment in Ontario (Goering, 2003).

Wenzel et al (2004) compared the performance of the SOGS, the CPGI and the recently developed Victorian Gambling Screen (VGS) in a general population survey in Victoria, Australia. After screening for gambling involvement, 435 regular weekly gamblers on non-lottery games were divided into three groups and administered one of the three problem gambling screens. The research team conducted analyses of content and face validity, examined the distribution of responses, internal consistency and underlying dimensionality of each of the three screens as well as carrying out a range of other tests of reliability and validity. They concluded that the CPGI outperformed both the SOGS and the VGS and recommended that this screen be adopted throughout Australia as an alternative to the SOGS. They further noted that the CPGI is undergoing refinement to accommodate findings from several of the recent Canadian surveys and argued that it was essential “to establish close collaboration with Canadian researchers to keep up to date with this process and participate in further modifications to the screen” (Wenzel et al, 2004: 63).

There are some limitations to the validation work carried out in Victoria. Although the overall sample for the Victoria survey included nearly 8,500 respondents, only five percent of the respondents were identified as regular weekly gamblers on non-lottery games. This strategy was most probably adopted to increase the likelihood of identifying relatively large numbers of problem gamblers but the low rate of weekly non-lottery gambling is somewhat surprising in the Australian context. Despite this strategy, the actual number of problem gamblers captured in the sample was quite small (n=28 for the SOGS, n=22 for the CPGI and n=40 for the VGS) and this may have affected the results of the study. Finally, the inclusion of only regular gamblers in the validation study excluded several important subgroups in the population, such as individuals who gamble less than weekly but for whom gambling is nevertheless problematic.

As with many other problem gambling screens examined here, concerns have been expressed about the lack of theoretical framework that underlies the CPGI. Even if the screen reliably differentiates between problem and non-problem gamblers, it is not clear why this is the case. Concerns have also been expressed about the substantial overlap between the CPGI and the SOGS as well as an apparently high rate of false positives generated by the CPGI in relation to post-assessments involving formal clinical diagnosis (Neal et al, 2004).

Despite these limitations, Neal et al (2004) agree with Wenzel et al (2004) that the CPGI is superior to both the SOGS and the VGS. In their view, the CPGI demonstrates high internal consistency, good dimensionality and good item variability. The CPGI also has the strongest correlations with common correlates of problem gambling including anxiety, depression and suicidal ideation. The only weakness of the CPGI to emerge from the Victoria validation study was that the distribution of scores did not map onto the cut-off score. Like Wenzel et al (2004), Neal et al (2004) conclude that the CPGI should be included in future prevalence research in Australia although further work is needed to assess the classification accuracy of the CPGI.

HARM Measure

This measure was developed by the Productivity Commission (1999) for the national survey in Australia. HARM includes 21 items based on a list of issues identified by the Commission as valid indicators of significant gambling problems. The items are all framed as ‘past 12-month’ measures and respondents score a single point for any item endorsed. The Commission argued that endorsement of one or more items indicated the presence of a gambling problem.

While HARM has good face validity, little is known about the psychometrics of this scale. There is no published information regarding the internal consistency or dimensionality of the scale or its classification accuracy. The measure does appear to yield results similar to the

SOGS. However, as Neal et al (2004) point out, a narrow focus on harm means that the screen is unable to identify individuals whose gambling behaviour is problematic but who have not yet experienced significant harms related to their gambling. As a consequence, this screen does not appear well suited for clinical applications.

Information Biases Scale (IBS)

The Information Biases Scale (IBS) was developed by a group of Canadian researchers specifically to measure cognitive distortions related to VLT play, including illusion of control, gambler's fallacy, illusory correlations, and the availability heuristic (Jefferson & Nicki, 2003). Performance of the IBS was examined in a group of 96 Video Lottery Terminal (VLT) players recruited in bars in New Brunswick. The 25-item scale demonstrated good internal consistency. An exploratory principal components factor analysis showed that variability on the IBS was accounted for by one primary factor. According to the developers, the construct validity of the IBS was supported by the finding that scores on the scale were uniquely determined by measures of gambling addiction and negative affect. Although the developers argue that the scale is useful both in research and clinical settings, the IBS has not yet not been widely adopted or tested for its performance in different settings.

Gambling Passion Scale

As Abbott et al (2004) have noted, gambling is an occasional and enjoyable experience for most people. However, for some people gambling leads to debilitating problems that can also result in harm to people close to them and to the wider community. In an effort to investigate how and when enjoyment of gambling can become troublesome, a Canadian research team developed a 10-item scale to distinguish between healthy and unhealthy enjoyment of gambling. Building on research into 'harmonious passion' and 'obsessive passion', Rousseau et al (2002) developed a Gambling Passion Scale (GPS) to measure individuals' attitudes toward their involvement in gambling.

Rousseau et al (2002) used exploratory and confirmatory factor analysis with a split group of 312 adults recruited at a casino to assess the initial performance of their 10-item scale assessing harmonious and obsessive passion toward gambling. Responses to each item are scored on a seven-point scale. Test-retest reliability was assessed with 28 participants from the larger study. The two five-item subscales of the GPS demonstrated adequate internal consistency and good test-retest reliability. Factor analysis confirmed a two-factor structure and partial correlations showed that obsessive passion was associated with negative gambling behaviour measures. The researchers note that the brevity of the GPS means that the screen has broad research uses although further work is required to determine if the scale applies to non-casino gamblers and to assess the performance of the screen after translation into English.

Brief screens

Reduced SOGS Measures

In a recent review, Abbott and Volberg (2006) concluded that while the PGSI and one or more DSM-IV based measures may be emerging as successors to the SOGS/SOGS-R, the high level of correlation amongst all of these measures indicates that consideration should be given to further refinement of the SOGS, including retention of the better performing items and removal of those that have become obsolete or fail to reflect problems in some groups.

One research team in the U.S. has already undertaken work in this direction. Strong et al (2004) have used modern test theory to identify a reduced set of items from the SOGS that perform well both in community and clinical samples. These researchers initially identified a subset of 15 items from the original SOGS that demonstrated significant stability across community and clinical samples and a good relationship to the DSM-IV criteria in the clinical sample. In a subsequent study, Strong et al (2003) again used Rasch modelling to identify a

subset of six items from the original SOGS that predicted gambling problem severity equally well in a large sample of U.S. college students and in a separate sample of treatment-seeking pathological gamblers. While potentially quite useful, this shortened version of the SOGS consists of one highly subjective item (Did you ever gamble more than you intended to?) and five items that address financial issues (not paying back money borrowed, borrowing from the household, from banks or loan companies, cashing in stocks or bonds, and borrowing from one's cheque account). This set of items entirely ignores other personal and social factors that may influence an individual's ability to control their gambling.

Lie-Bet Screen

The Lie-Bet Screen consists of two items extracted from the DSM-IV with response categories of 'Yes/No' (Johnson et al, 1997). The Lie-Bet Screen was derived from a 12-item scale based on the DSM-IV criteria that was administered to 191 members of Gamblers Anonymous and 171 employees of a Veterans Administration Medical Center. The authors used discriminant analysis to identify the items that best differentiated between the two groups. Further validation with 146 problem gamblers and 277 controls was carried out (Johnson et al, 1998). Oddly, the Lie-Bet Screen has not performed satisfactorily in screening for problem gambling in specialised treatment programmes in three U.S. states (Rugle, 2004).

Despite impressive psychometric results in its development, the Lie-Bet has not been widely used. An exception is the first national prevalence surveys of adolescents and adults conducted in Norway (Götestam et al, 2004). Noting the need for a rapid screening tool for pathological gambling, the Norwegian researchers examined the performance of the Lie-Bet Screen in large adult and adolescent general population samples in Norway. While the screen performed poorly as a screen for pathological gambling *per se*, a positive response to one or both items did perform well with respect to the detection of individuals with DSM-IV scores of 3 or more. The Lie-Bet Screen correctly detected over 90 percent of DSM-IV defined problem and pathological gamblers (11 of 12 adults; 180 of 194 adolescents). There were also 146 people incorrectly classified as having problems (false positives). With respect to screening, if administration of a full screen were confined to people who scored positive on the Lie-Bet Scale, only 196 people would need to be assessed instead of 2,277 at the cost of missing 15 people with problems.

Interestingly, when the two-item screen is considered in its own right rather than as a filter for additional assessment, it produces population prevalence estimates that are not significantly different from those derived from the entire DSM-IV measure. This similarity occurs as a consequence of the relative proportions of false positives and false negatives. These findings suggest that, in addition to providing a very effective filter, this short screen does as well if not better than a number of longer, established problem measures as a proxy for DSM-IV defined lifetime problem and pathological gambling (but not pathological gambling alone). As Neal et al (2004) note in relation to the Lie-Bet Screen, the search for a very efficient surrogate for longer scales is a worthwhile endeavour. Clearly, further investigation of the Lie-Bet in other settings and in relation to other measures is warranted.

The EIGHT Screen

The EIGHT Screen was developed by Sullivan (1999) for use in primary care and clinical settings. The EIGHT Screen is not intended to provide a formal diagnosis of pathological gambling but instead acts as a screen to indicate whether further screening or a clinical interview is warranted. Items for the screen were selected from existing screens, including the SOGS, DSM-IV and GA-20. Formal validation involved administering a list of 35 items to problem gamblers in treatment. Analysis showed that eight of these items were able to differentiate problem gamblers from non-problem gamblers on the basis of their SOGS score. The final item set was administered to approximately 1,000 patients in primary care settings in conjunction with the SOGS. Based on the SOGS, a cut-off score of four on the EIGHT

Screen was found to maximise sensitivity and specificity of the test. The EIGHT Screen demonstrated acceptable internal consistency and test-retest reliability.

Neal et al (2004) note that the EIGHT Screen was designed as a screening tool and its administration therefore produces substantial numbers of false positives who would be identified subsequently through a formal diagnostic process. These authors argue that the EIGHT Screen provides a useful way of identifying individuals before they develop severe gambling-related problems and may serve as a means of assisting genuine problem gamblers to find professional help.

The NODS-CLiP

A critical challenge in population-based studies of problem gambling is the relative infrequency of the disorder in the general population. The rarity of the disorder means that problem gambling surveys must either screen enormous numbers of respondents to identify adequate numbers of problem gamblers for analysis or employ one or more strategies to efficiently capture large numbers of problem gamblers relative to their prevalence in the population, such as the 'dual frame' sampling approach used in the United States (Gerstein et al., 1999) or the multiple interviews per household used in Great Britain (Sproston et al, 2000).

Toce-Gerstein and Volberg (2003) used data from the U.S. national and patron surveys and from all of the state level surveys that included the NODS, representing nearly 9,000 adult Americans, to identify a subset of three lifetime NODS questions to which 99% of the NODS-classified pathological gamblers (NODS=5+) and 94% of NODS-classified problem gamblers (NODS=3 or 4) answered at least one in the affirmative. This new screen was dubbed the NODS-CLiP to remind users of the three criteria assessed using this screen (Control, Lying and Preoccupation). Further analysis indicates that the lifetime NODS consists of three sub-factors and that the three items that make up the CLiP each assess one of these factors (Toce-Gerstein & Gerstein, 2005).

Toce-Gerstein and Volberg developed the NODS-CLiP to minimise respondent burden and reduce the expense of community studies of problem gambling. They were unprepared for the tremendous interest in the NODS-CLiP among clinicians working in gambling treatment programmes as well as in alcohol and drug programmes. In retrospect, it seems obvious that a three-item screen, even if it must be followed by an additional three-minute battery of questions to confirm or disconfirm a potential diagnosis of pathological gambling, would be just as attractive to clinical professionals as to population researchers.

Arrangements are presently underway to incorporate the NODS-CLiP in the assessment battery administered to all individuals who are assessed for mental health or addiction problems both in publicly and privately funded institutions in the State of Connecticut, U.S. For individuals who endorse one of the three items, the remainder of the lifetime NODS items will be administered. This will be an important opportunity to examine the performance of both the CLiP and the NODS in a large but not gambling-specific clinical population. As evidenced by the strong interest among clinicians in the NODS-CLiP, a simple, sensitive and brief screen is sorely needed, not only to aid researchers in isolating individuals with a high likelihood of being a pathological gambler but also as an aid for clinicians who treat problem gamblers.

Evaluating problem gambling in clinical settings

As noted above, one of the important functions of measurement tools is assessing therapeutic change, providing clinicians with the means to identify problem areas for clients that need to be addressed in treatment and to detect changes in client status over time. Since the publication of the DSM-IV criteria, a growing number of tools have been developed for these

purposes. In this section, information is presented on tools developed for use in problem gambling treatment settings. Several tools that have applicability in population research have been included as well.

Gambling Treatment Outcome Monitoring System (GAMTOMS)

GAMTOMS includes assessment batteries that attend to a range of aspects of client change. Domains assessed include gambling frequency, problem gambling severity, debt, financial problems, arrests and legal status, gambling problem recognition, substance use, psychosocial functioning, work absenteeism, satisfaction with treatment, ratings of the helpfulness of treatment and post-treatment service utilisation.

The GAMTOMS includes a psychometric version of the DSM-IV criteria intended for use in assessing clients entering treatment (Stinchfield & Winters, 2001). Each criterion is administered as a single question with 'Yes/No' response options. Individuals are classified as pathological gamblers based on a cut-off score of five. It is unclear whether this classification is based on a lifetime or current time frame. Stinchfield and Winters (2001) describe the validation of the GAMTOMS system including the DSM measure which showed good internal consistency and concurrent validity as well as moderate external or criterion validity. A more recent validation study showed that the DSM component of the GAMTOMS had good test-retest reliability with newly admitted clients as well as good sensitivity and specificity when comparing the clinical sample with non-clinical cases (Stinchfield et al, 2001).

Gambling Behaviour Interview (GBI)

The Gambling Behaviour Interview is a 76-item instrument assessing past-year pathological gambling. The screen consists of eight content domains including gambling attitudes, frequency of gambling, time and money spent gambling, venue-specific gambling, the South Oaks Gambling Screen, the DSM-IV diagnostic criteria, a 32-item scale designed to provide a more complete description of gambling related problems, and demographic questions. All of the items are scored 'Yes/No' and refer to the past 12 months (Stinchfield, Govoni & Frisch, 2004).

The psychometrics of the Gambling Behaviour Interview were tested in Ontario, Canada with 121 problem gamblers in treatment and 300 individuals recruited from the general population. The GBI demonstrated good internal consistency, dimensionality and classification accuracy. Scores on the GBI were highly correlated both with the SOGS and the DSM-IV criteria. This is hardly surprising since many of the items in the GBI were derived from the three different versions of the DSM criteria for pathological gambling.

Neal et al (2004) point out that although the psychometric properties of the GBI are satisfactory, the scale is subject to many of the same criticisms that apply to the SOGS. As with the SOGS, the GBI does not appear to have a clear theoretical rationale and items relating to 'harm' are combined with attitudinal and behavioural items. Validation of the GBI with two very different samples means that the GBI is likely to result in a high rate of false positives if used in population research. Finally, some of the items included in the GBI appear to be culturally and ethnically biased.

Structured Clinical Interview for Pathological Gambling (SCI-PG)

In a recent study, the DSM-IV criteria for pathological gambling were incorporated into the Structured Clinical Interview for DSM-IV (SCID), a widely used diagnostic instrument for assessing psychiatric disorder in clinical settings (Grant et al, 2004). A total of 72 consecutive subjects seeking enrolment in a pharmacotherapy study of pathological gambling was administered the SOGS, the PG-YBOCS, the Hamilton Rating Scales for Depression and Anxiety (HAM-D and HAM-A) and the SCI-PG. The SCI-PG consists of

11 probe and additional follow-up questions reflecting the DSM-IV criteria and the exclusion criterion. A diagnosis of pathological gambling requires endorsement of five or more of the inclusion items and the exclusion item.

Although the analysis shows that the SCI-PG demonstrated excellent reliability and validity in diagnosing pathological gambling in subjects presenting with gambling problems, the authors caution that the findings require replication in other groups to examine their generalisability (Grant et al, 2004).

Yale-Brown Obsessive Compulsive Scale for Pathological Gambling (YBOCS-PG)

The Yale-Brown Obsessive Compulsive Scale was originally developed to assess for the DSM-IV criteria for obsessive-compulsive disorder (OCD). The original YBOCS comprised two subscales, one measuring obsessive thoughts and the other measuring compulsive behaviours. The YBOCS-PG was developed by Hollander et al (1998) to provide empirical data in support of the re-classification of pathological gambling from an 'impulse' disorder to an 'obsessive-compulsive' disorder. The YBOCS-PG consists of 10 items that are each scored from zero to four with an overall possible score of 40.

Neal et al (2004) note that while pathological gambling appears to share many similarities with obsessive-compulsive behaviours, the mechanics of the disorders are quite distinct and that attempts to apply OCD measures as surrogate measures of pathological gambling are probably misguided. However, these authors argue that the inclusion of such measures in conjunction with a formal diagnosis may be informative and improve understanding of the role of possible psychiatric comorbidities in intensifying problematic gambling behaviour.

Gambling Symptom Assessment Scale (G-SAS)

The Gambling Symptom Assessment Scale was developed to assess gambling symptoms during treatment (Kim et al., 2001). The G-SAS measures past-week gambling urges and thoughts and includes 12 items with response options ranging from zero to four. Responses are summed and the total score range is zero to 48. Scores of 31 or more signify severe symptoms; scores of 21 to 30 denote moderate symptoms; and scores of 20 or less indicate mild symptoms. The performance of the G-SAS was examined in a group of 58 individuals receiving pharmacotherapeutic treatment for pathological gambling and demonstrated satisfactory test-retest reliability and internal consistency (Kim et al., 2001).

G-Map

This instrument was developed by a team of counsellors and psychologists at one of the Victoria Break Even programmes in Australia and is based on a series of case-study analyses of clients in the programme in the mid-1990s (Loughnan, Pierce & Sagris, 1996). The G-Map consists of 85 items divided into 17 domains that assess different aspects of a respondent's gambling including understanding of gambling, feelings about gambling, situational factors, attitudes that influence gambling and social context of gambling. Respondents are asked for responses to each item on a five-point scale and scores are multiplied by four to give a score out of 20 for the question group. Results from the G-Map have been presented at several conferences and the developers have argued that the scale is useful in generating a descriptive profile of different types of problem gambler.

The G-Map does not appear to be based on a clear theoretical model of problem gambling nor do the items appear to have been selected based on any factorial structure or other internally coherent foundation. The developers of the G-Map have not made the instrument available to other researchers or clinicians so it is difficult to assess its performance or likely value in a range of specific contexts.

Gambling Urges Scale (GUS) and Gambling-Related Cognitions Scale (GRCS)

The Gambling Urges Scale was developed by Raylu and Oei (2004a) specifically to assess the dimension of loss of control related to gambling. These researchers argue that a critical element in addiction is the urge to gamble and impaired control over such urges. These researchers modified the Alcohol Urge Questionnaire and tested the psychometrics of their screen with a group of university students as well as a group of volunteers from the community. The six-item scale demonstrated good internal consistency and dimensionality as well as reasonable concurrent validity. Scores on the scale were positively correlated with the SOGS and with several other measures of gambling motivation and irrational thinking.

Neal et al (2004) argue that the Gambling Urges Scale appears promising for use in clinical settings to determine the success of treatment in relation to gambling urges although they believe that the scale should be used in conjunction with other measures when the aim is to identify people whose gambling behaviour may be problematic. Neal et al (2004) note some limitations to the GUS validation study as well as the scoring method and point out that the 'American-style' wording of some of the items may be problematic in other countries.

Raylu and Oei (2004b) have also developed a measure called the Gambling Related Cognitions Scale to screen for a range of gambling-related cognitions among gamblers in treatment. The performance of this 23-item instrument was examined in a group of 968 community volunteers divided randomly into two groups. Exploratory factor analysis was completed with the first group and confirmatory factor analysis was used with the second group to test independently for the best fitting solution. The exploratory approach identified five separate factors accounting for 70% of the total variance. Subsequent analysis with the second group confirmed the five-factor solution as fitting the data most effectively. Based on these results, the authors argue that the GRCS has good psychometric properties and is likely to be a useful instrument for identifying gambling-related cognitive distortions among non-clinical gamblers as well as providing a first step toward devising similar tools for use in clinical settings.

Gambling Timeline Followback (G-TLFB)

The Timeline Followback method has been used in clinical and population research to assess changes in behaviour over defined periods of time, primarily in relation to alcohol consumption and misuse. Several gambling researchers have adopted a timeline followback approach to assessing changes in gambling behaviour over time. Hodgins and Makarchuk (2003) examined the test-retest reliability of self-reported gambling behaviour in samples of Canadian problem gamblers. These researchers found that reports of number of days gambled and money spent gambling over a six-month period were reliable and agreement with collaterals was fair to good. These researchers concluded that their results supported the use of self-reported gambling in studies of problem gamblers assessed face-to-face or by telephone.

In another study, Weinstock, Whelan and Meyers (2004) evaluated the performance of a timeline followback approach to assess samples of college students who gambled heavily. Their measure (the Gambling Timeline Followback, G-TLFB) assessed seven dimensions of gambling behaviour including type, frequency, duration, intent, risk, win-loss and consumption of alcohol while gambling. In two samples of frequent gamblers and one sample of disordered gamblers, the G-TLFB demonstrated excellent test-retest reliability, concurrent validity with problem gambling and alcohol misuse measures, and discriminant validity with a measure of positive impression management.

Gambling Self-Efficacy Questionnaire (GSEQ)

One important aspect of treatment accessibility and outcome relates to individuals' willingness to seek treatment and remain in treatment. Instruments that assess individuals'

willingness and ability to control problematic behaviours are useful in monitoring behaviour change, predicting maintenance of treatment gains and identifying potentially risky situations related to relapse.

The Gambling Self-Efficacy Scale Questionnaire was developed to assess individuals' perceived ability to control their gambling behaviour (May et al., 2003). The researchers tested an initial suite of 42 items on a demographically diverse convenience sample of 309 adult gamblers. A reduced set of 16 items selected to form the final version of the GSEQ showed high internal consistency and good test-retest reliability, and factor analysis provided support for a unitary factor structure. As expected, scores on the GSEQ were negatively correlated with scores on the SOGS. While the developers conclude that the GSEQ has potential utility for treatment planning and outcome evaluation with problem gamblers, the GSEQ has not yet been widely adopted for use in problem gambling treatment.

Gambling Attitudes and Beliefs Scale (GABS)

The Gambling Attitude and Beliefs Scale is a 35-item forced choice instrument designed to capture a wide range of cognitive biases, irrational beliefs and subjective arousal and excitement that have been hypothesised to relate to gambling behaviours including chasing (Breen & Zuckerman, 1999). Responses are recorded on a four-point scale ranging from 'strongly agree' to 'strongly disagree'. Higher GABS scores indicate that gambling is felt to be exciting and socially meaningful, and that luck and strategies (even illusory ones) are important. The GABS is intended as a measure of attitudes and beliefs among regular gamblers and has only been tested on persons who report some gambling involvement.

In developing the GABS, Breen and Zuckerman (1999) first administered the instrument to a group of 625 college students. The instrument demonstrated high internal consistency and factor analysis showed a single unitary factor construed as a broad affinity for gambling. Scores on the GABS in this sample were significantly correlated with gambling problems measured by the SOGS (with a six-month time frame). The GABS performed equally well in a group of 86 treatment-seeking pathological gamblers. The GABS has been used in research examining a brief intervention for gambling problems among U.S. college students and in problem gambling treatment in several U.S. jurisdictions (McNeilly, personal communication; Neighbors et al., 2002).

More recently, Strong, Daughters et al (2004) employed modern test theory (Rasch modelling) to identify a subset of 10 items from the GABS that reliably rank-ordered college students in relation to their positive attitudes and beliefs about gambling. The researchers argue that the resulting item set better accounts for variance in gambling behaviour than more standard consequences-based assessment measures and recommend the use of this 10-item screen to improve gambling assessment in college student populations.

Gambling Readiness to Change (GRTC)

In a recent study of college students' gambling behaviour, Neighbors et al (2002) developed several measures to assess gambling participation and consequences. This effort is modelled on the researchers' work related to minimising and reducing harm related to alcohol consumption among college students in the U.S. In the present context, the instrument developed to assess readiness to change in relation to gambling involvement is of particular interest.

The Gambling Readiness to Change scale was modelled after an alcohol readiness-to-change scale based on Prochaska and DiClemente's stages-of-change model. The GRTC is a nine-item scale with three items measuring each of three stages, including pre-contemplation, contemplation and action. Respondents indicate the extent to which they agree with each item on a five-point scale. According to Neighbors et al (2002), the GRTC can be scored in

different ways according to the specific aims of the context in which it is used. A composite score consists of weighting the three subscales and using the mean of all the weighted items. Alternatively, separate scores for pre-contemplation, contemplation and action can be derived by taking the mean of the items corresponding to each subscale. A third possibility is to categorise individuals according to their highest subscale score.

Performance of the GRTC was examined in a group of 560 college students in a large university in the Northwest U.S. Only those students scoring three or more on the SOGS were included in these analyses. Principal components analysis strongly supported a three-factor solution accounting for 67% of the total variance. The scale demonstrated satisfactory reliability for the composite scale and each of the subscales. Convergent validity was examined in relation to several gambling outcome measures and showed that greater problematic gambling was associated with greater readiness to change.

Assessing other disorders among problem gamblers

Developments in problem gambling assessment and screening follow trajectories seen in other areas of mental health assessment. The brief for the present report was to examine screening instruments for the broad measurement of harms experienced by problem gamblers. This was taken to include screens for disorders most likely to be comorbid with problem gambling including alcohol misuse, depression, anxiety and stress.

As of this writing, there do not appear to be standardised tools available to assess several other important areas of life functioning affected by gambling problems such as employment and vocational impacts, finances and indebtedness, and legal difficulties. Other areas of life experience that have received relatively little attention in the gambling literature include domestic violence and suicidality. In the future, it will be important to identify or develop tools to assess these domains in relation to gambling problems.

Alcohol

There are a number of widely used screens for alcohol misuse and abuse. The Michigan Alcoholism Screening Test (MAST) is a 25-item questionnaire that focuses on the consequences of problem drinking and on subjective perceptions of alcohol problems (Selzer, 1971). Two shortened forms of the MAST have been developed using items from the original questionnaire that are highly discriminating for alcoholism. One is the 13-item Short MAST (SMAST) and the other is an even briefer 10-item version (Pokorny, Miller & Kaplan, 1972; Selzer, Vinokur & van Rooijen, 1975).

The AUDIT is a 10-item screen developed by the World Health Organisation to identify individuals whose alcohol consumption has become hazardous or harmful to their health (Babor & Grant, 1989; Babor et al., 1989). The AUDIT has a long record of high performance across different populations and clinical settings and the standard cut-off score of eight provides good sensitivity and specificity for the detection of social and medical problems related to alcohol (O'Hare et al., 2004). As with the MAST, researchers have recently identified a subset of items on the AUDIT that appears to function efficiently to filter out most non-problematic drinkers while yielding minimal loss of cases as false negatives (Allen et al., 1997; Saunders et al., 1993). In separate studies of heavy male drinkers and the U.S. adult population, researchers have found that the three alcohol consumption items from the longer AUDIT (dubbed the AUDIT-C) performed just as well as the full screen for detecting active abuse or dependence although different cut-off scores for men and women improve sensitivity and specificity (Bush et al., 1998; Dawson et al., 2005). The AUDIT is currently used by problem gambling service providers within New Zealand.

Other brief screening tools for alcohol misuse and abuse include the CAGE and the more recent Rapid Alcohol Problems Screen (RAPS). The CAGE is a short four-item screening instrument commonly used in clinical settings (Mayfield, 1974). The RAPS is a similar five-item screen and the RAPS4 is a further four-item refinement (Cherpitel, 2002). Comparison of the performance of the CAGE and the RAPS4 was analysed in a national sample of 7,612 U.S. adults assessed for alcohol consumption and problems. While the RAPS4 outperformed the CAGE, this performance was substantially improved when two quantity-frequency (QF) questions were added. The RAPS4-QF performed significantly better for alcohol abuse and outperformed the CAGE across all gender, ethnic and service utilisation groups. Further research is underway to assess the performance of the RAPS4-QF in 12 other countries associated with the WHO Multi-Site Collaborative Study of Alcohol and Injury (Cherpitel et al., in press).

Depression and anxiety

As with alcohol, numerous screening measures have been developed specifically to detect depression. While some of these measures must be interviewer-administered, there is good evidence that even very short screens can be as effective as longer screening measures. A recent meta-analysis demonstrated that a two-item screen is effective in identifying clinical depression among adults in primary care settings (U. S. Preventive Services Task Force, 2002). These items query whether a person has “felt down, depressed or helpless” or “felt little interest or pleasure in doing things” over the past two weeks. A positive response indicates the need for more in-depth assessment. Similar items, assessing lifetime experience of depression, have been used in numerous problem gambling prevalence surveys in the U.S. to assess the comorbidity of these disorders in the general population (Volberg, 2004).

The most commonly used screening measure for depression among adults includes several different versions of the Beck Depression Inventory (BDI, BDI-II and BDI-PC for use in primary care settings) (Beck, Steer & Brown, 1996; Beck et al., 1997). Other widely used screens for depression include the Center for Epidemiologic Studies Depression Scale (CES-D and CES-DR) (Radloff, 1977) and the Zung Self-Rating Depression Scale (Zung, 1965). With the exception of the BDI-PC, a seven-item version of the longer BDI, these self-completion measures all require five to 10 minutes to complete (Sharp & Lipsky, 2002). The Beck Anxiety Inventory (BAI) has also been used in a number of gambling studies (Steel & Blaszczynski, 1998).

The Depression Anxiety Stress Scale (DASS) is a self-report screen designed to measure these negative emotional states in population research and clinical settings. The original DASS consisted of 42 items rated on four-point severity/frequency scales (Lovibond & Lovibond, 1995). A much shorter 21-item scale with seven items in each domain has also been developed and tested for performance (Antony et al., 1998). The DASS was used in a recent study examining the performance of the IBS (Jefferson & Nicki, 2003).

Stress and coping

Stress and coping are relatively new areas of investigation in relation to gambling problems. In contrast to screens for alcohol misuse, depression and anxiety, and with the exception of the DASS mentioned above, there do not appear to be any short instruments available for assessing stress and/or coping styles in relation to other disorders.

Krishnan and Orford (2002) used the Coping Questionnaire (CQ), a 68-item questionnaire originally designed for use with family members of problem drinkers and adapted for family members of problem gamblers. Factor analysis indicates that the underlying structure of the CQ relates to three broad coping strategies: engaged, tolerant and withdrawal. Getty, Watson and Frisch (2000) used the Problem-Focused Styles of Coping to examine styles of coping in male and female members of Gamblers Anonymous compared with a matched group of non-

pathological controls. The PF-SOC is a 19-item self-report instrument that measures three problem-focused coping styles including suppressive coping, reactive coping and reflective coping. The scales have been shown to possess good internal consistency, test-retest reliability and construct validity (Heppner et al., 1995).

In a recent study of coping styles among adolescent gamblers, Nower et al (2004) adapted two measures of this construct developed for use with adults. These included the Coping Inventory of Stressful Situations which measures global domains of coping (CISS, Endler & Parker, 1990) and the Coping Orientations to Problems Experienced (COPE) which provides a variety of specific subscales about preferred coping strategies (Carver, Scheier & Weintraub, 1989). The COPE is a 60-item self-report measure composed of 15 scales that has been found to have adequate convergent and discriminant validity compared with other measures of coping. The CISS is a 66-item questionnaire that measures three dimensions of coping: task-oriented coping, emotion-oriented coping and avoidance-oriented coping. The CISS has been rigorously validated with adolescents, young adults and adults and demonstrates excellent psychometric properties.

Domestic violence

The United States Agency for Healthcare Research and Quality has sponsored systematic evidence reviews on a number of issues that relate to problem gambling and are worthy candidates for screening in the problem gambling treatment setting. In reviewing methods for screening for family and intimate partner violence, Nelson, Nygren and McNerney (2004) identified a number of brief screens that have been developed for use in emergency hospital settings.

General psychological disorder

There are many measures for general psychological disorder/mental health available. Two that have been/will be used in New Zealand include the General Health Questionnaire 12-item (GHQ-12) and the Kessler Psychological Distress Scale (K10). The GHQ-12 is a short screen that has been used in many previous New Zealand studies including the 1991 and 1999 national problem gambling surveys and has been widely used internationally. The K10 has been validated internationally and will be included in the 2006/07 New Zealand Health Survey. Its brevity and simple response format are attractive features. It also produces a summary measure that indicates probability of currently experiencing an anxiety or depressive disorder.

General Health Questionnaire 12- item (GHQ-12)

The General Health Questionnaire (GHQ) was designed as a screening instrument to assess normal 'healthy' functioning and the appearance of new, distressing (mental health) symptoms in primary care patients (Goldberg & Blackwell, 1970; Goldberg & Williams, 1988). Since its introduction in the 1970s, the GHQ has become one of the most common self-report questionnaires used to measure non-psychotic mental illness in the community and in general practice. The GHQ was originally designed as a 60-item questionnaire; there are now 30-, 28-, 20- and 12-item versions (Goldberg & Williams, 1991). The shorter versions are more commonly utilised as they are quicker to administer. Since its development, the GHQ has been used extensively, has been translated into a number of languages and has been cross-culturally validated with adults as part of a World Health Organisation project on mental illness conducted in 15 centres worldwide, including developed and developing countries (Goldberg et al., 1997). That study reported that the GHQ-12 performed well, with an overall sensitivity of 83.4% and specificity of 76.3%.

Kessler Psychological Distress Scale (K10)

The Kessler Psychological Distress Scale (K10) was developed in the United States in 1994 for screening populations in psychological distress (Kessler & Mroczek, 1994). The

instrument comprises 10 questions on non-specific psychological distress focusing on the level of anxiety and depressive symptoms that a person may have experienced in the previous four-weeks. Following its development, it was validated in a two-stage clinical re-appraisal survey. The second stage sample comprised 153 first-stage respondents who screened positive for emotional problems; that second stage sample was administered the K10 along with the validated Structured Clinical Interview for DSM-IV (SCID) (Kessler et al., 2002). Kessler and colleagues concluded from their research that the brevity, strong psychometric properties and ability to discriminate DSM-IV cases from non-cases make the K10 (and its shorter form, the K6) attractive for use in general population surveys. They further stated that inclusion of either the K10 or the K6 in clinical studies would create an important crosswalk between community and clinical epidemiology.

The K10 and/or the K6 have since been used in jurisdictional health surveys in the United States and Canada as well as WHO World Mental Health Surveys (Kessler et al., 2002). The K10 has also been used in a number of population surveys in Australia. It is considered to be an appropriate screening instrument for use in population surveys although additional research on the scoring and clinical cut-off points to determine psychological distress is needed. Using data from the 1997 National Survey of Mental Health and Wellbeing, Andrews & Slade (2001) have found the K10 to be comparable with the GHQ.

In a study examining the factor structure of the K10 and its relationships with other measures of mental health, Brooks, Beard and Steel (2006) noted that a number of limitations existed in using the K10 as a clinical outcome measure. In particular, they noted that it does not cover some important clinical domains (e.g. suicidality, major psychoses) and with only two items measuring nervousness, agitation and lethargy is not likely to measure those constructs in any depth. They stated that it is indicative of a general class of potential diagnosis.

However, it should be remembered in the context of this present study that a measure of general health would be used not to make clinical diagnoses but to aid in the identification of mental health issues that might be comorbid with problem gambling and for which referral to appropriate services could be made.

Recommendations for New Zealand

The ultimate objective of the present report is to recommend a full set of screening and assessment instruments to be used in the clinical treatment of problem gamblers and potentially in primary health settings. The ideal might be to select measures that work well in both community and clinical contexts. However, as Thomas et al (2003) have noted, until recently, gambling researchers and clinicians have had very limited tools available to use across different contexts and for disparate purposes.

In considering the merits of any screening and assessment instrument, consideration of the context(s) in which the tool will be employed is paramount. In the present context, the best tools are those that provide for early identification of problem gambling (perhaps at the expense of identifying individuals with lower levels of risk). The best tools will also provide information useful in deciding what further assessments or additional action may be required. Finally, the best tools will allow for monitoring of change over time in gambling behaviour and consequences to allow for the assessment of the effectiveness of treatment. Additional considerations relate to expectations that these tools will be used in situations where the proportion of affected persons is likely to be high as well as the need for tools that are easy and inexpensive to administer. To borrow from Neal et al (2004), it is likely that the best screening and assessment tools for use in the New Zealand context will serve identification, classification and therapeutic functions.

The emphasis in the present context is on clinical applications and our focus, therefore, must be on problem gambling measures that best serve the functions of screening leading to diagnosis as well as assessment of severity and therapeutic change. The emphasis must also be on measures that rest as firmly as possible on a coherent theory of problem and pathological gambling along with a clear definition and adequate operationalisation.

It must be noted, at this stage, that some of the recommended instruments detailed in the following pages have not previously been evaluated within a New Zealand context. Thus their usability in the specific cultural contexts of New Zealand (especially Maori, Pacific and Asian populations) is not known. However, this should not preclude the use of specific instruments in this project and any screening tools selected for trial can be evaluated for cultural sensitivity.

Screening

While screening takes place in a range of settings, the procedure generally needs to be done quickly and without the aid of a clinician or other health professional. There is also a distinction to be made between screening in clinical settings compared with screening in population research. In population research, screening serves as a means to generate information about the prevalence of gambling problems in populations or as a means to identify individuals for further investigation. In other contexts, such as a helpline call or in a primary health care setting, screening is a first step in the process toward more formal assessment and diagnosis. While the issue of accurate identification is important in all of these contexts, screening in the helpline or primary care setting is generally followed by additional steps to ensure the validity of the screening procedure.

Based on our review of problem gambling measures, there are a number of candidates for a recommended instrument for screening by the helpline or in primary care settings in New Zealand. In these settings, there is a need for an extremely brief screen that can be followed by lengthier assessment. While both the **Lie-Bet Screen** (two items) and the **NODS-CLiP** (three items, including a 'lie' question as in the Lie-Bet Screen) appear promising in this regard, the Lie-Bet Screen appears to perform better in identifying sub-clinical problem gamblers. Both of these screens, along with the Reduced SOGS, assess both loss of control and some element of harm to others. Although the **ASI-G** (five items) and the **Reduced SOGS** (six items) might also be appropriate, researchers have noted that primary care physicians often neglect to administer even the very short CAGE and RAPS4 screens for alcohol misuse. It is, therefore, important to identify the very briefest available screens for use in these settings.

Further questions that may be pertinent in terms of short problem gambling screens is "Have you ever had a problem with gambling" followed by "Is the problem current" if the first answer is affirmative. The rationale for these questions stems from the results of community surveys where about half the people assessed as problem gamblers through measures such as SOGS-R and DSM-IV gambling criteria report experiencing problems whilst a similar number consider that they have problems but do not score as problematic on these measures in surveys (Abbott & Volberg, 2000).

Summary characteristics of all the problem gambling screens detailed in this review are presented in Appendix 5.

Diagnosis and assessment

A formal diagnosis of pathological gambling is ordinarily arrived at by an appropriately qualified and experienced clinician following an extensive clinical interview. This usually involves taking a detailed life history, asking questions and making observations specific to pathological gambling, as well as conducting similar examinations with respect to other

aspects of mental health. Collateral information is also frequently considered, such as interviews with family members and previous clinical documentation. To make a diagnosis of pathological gambling, the clinician is required to determine that a minimum number of diagnostic indicators have been met and that they are not better explained by another disorder (specifically a manic episode in the case of DSM-IV) (Abbott & Volberg, 2006).

In recommending a screen for assessment and diagnosis of pathological gambling in clinical settings in New Zealand, there is a range of DSM-IV based measures available from which to choose. Some of these measures (e.g. the DIS/GAM-IV) are quite lengthy and assess the diagnostic criteria individually in relation to multiple gambling activities. Other measures are limited to past-year behaviours and experiences and may miss individuals whose gambling problems are 'in remission'. In the clinical context, the **NODS** (10 gateway items and seven additional criterion items) may be a good candidate for clinical assessment. It provides additionally for assessment of lifetime and past-year experiences.

To assist clinicians in determining whether a person is ready to engage in treatment, it is considered that the **Gambling Readiness to Change (GRTC)** (nine items) could be included in any assessment or diagnostic interview for problem gambling although its use has not been rigorously evaluated outside a university setting.

Assessing problem gambling severity

While assessing for the presence or absence of problem gambling is important in clinical settings, information about problem gambling severity is also critical in framing decisions about treatment need and modality. In addition to assessing treatment seeking individuals diagnostically, there is a need to employ one or more screens for problem gambling severity as well. In this context, the **Problem Gambling Severity Index (PGSI)** (nine items) is the best candidate. As well as successfully classifying those problem gamblers who are most severely disordered, the PGSI assesses non-pathological gambling problems well and could therefore have utility in settings where individuals with sub-clinical gambling-related problems are seeking help.

It is of interest, and useful to know, that currently in Canada a consolidated a Canadian Problem Gambling Index (CPGI) dataset is being constructed, with all researchers who have used the screen being contacted. It is anticipated that there could be as many as 35,000 cases from around the world contributing to the dataset and which could be accessed by researchers from any participating jurisdiction (Simpson, 2006, personal communication). This could be a powerful tool for inter-jurisdictional comparisons with respect to the use of the CPGI and the PGSI.

Given that this project is being conducted in New Zealand, it is pertinent at this stage to again mention the New Zealand developed EIGHT screen and provide some discussion as to why it has been deemed less suitable than the PGSI as a candidate for assessing problem gamblers in a clinical setting. As previously mentioned, Neal and colleagues (2004) note that the EIGHT Screen was designed as a screening tool with its administration producing substantial numbers of false positives who would be identified subsequently through a formal diagnostic process. They argue that the EIGHT Screen provides a useful way of identifying individuals *before* they develop severe gambling-related problems. This makes the EIGHT screen a useful early intervention tool (and indeed it was developed as such) but less useful in a clinical setting where individuals are presenting for treatment, usually because they have already identified that they have a problem(s) with gambling. Additionally, the EIGHT screen is a lifetime measure and thus will not be suitable for assessing change over time. It is also unlikely to be used internationally, precluding meaningful comparisons with other jurisdictions nor indeed with national surveys such as the 2006/07 New Zealand Health Survey, which has included the PGSI.

Screening for comorbid disorders

There is general agreement among gambling researchers and clinicians that problem gambling often co-occurs with other psychiatric disorders. There is a need to screen for these other disorders in order to address issues that arise in specialty treatment, to improve rates of retention in treatment and to reduce recidivism.

We have identified several brief screens for alcohol misuse and disorders that could be used in screening rapidly for alcohol problems among individuals seeking help for a gambling problem. Given its use previously in problem gambling research in New Zealand (Abbott & Volberg, 1999), the best candidate in the present context appears to be the **AUDIT** (10 items) or the **AUDIT-C** (three items) which has been shown to perform as well as the full AUDIT for detecting active alcohol abuse or dependence.

In screening for depression among individuals seeking help for gambling problems, an initial approach would be to use the **two-item screen** advocated by the U.S. Preventive Services Task Force (2002). However, in the clinical setting, the best candidate is the **DASS-21** (21 items) which examines anxiety and stress as well as depression.

Assessing general psychological disorder

In terms of assessing general health, the GHQ-12 is a short screen that has been used in many previous New Zealand studies including the 1991 and 1999 national problem gambling surveys. The K10 has been well validated internationally and will be included in the 2006/07 New Zealand Health Survey which would be a useful comparison should it be used to assess general health amongst clients of problem gambling treatment services. However, neither the GHQ-12 nor the K10 include any questions relating to suicide ideation. Alternatively, the full CPGI could be used to assess general psychological disorder as it includes questions relating to alcohol and drug use as well as stress, depression and suicide when related to gambling.

Assessing therapeutic change

Given the lack of information internationally on the effectiveness of treatment for problem and pathological gambling, it is important to include a range of screens to enable thorough assessments of how much change and what kinds of change occur in relation to treatment or self-recovery.

While the **Gambling Behaviour Interview (GBI)** is rather lengthy at 76 items, it is important that changes in attitudes toward gambling and in gambling participation be monitored over the course of treatment and subsequently to evaluate treatment efficacy and effectiveness. One possibility would be to use the short version of the **Gambling Attitudes and Beliefs Scale (GABS)** (10 items) and include questions about gambling participation from the latest New Zealand problem gambling prevalence survey or gambling participation survey.

Three screens are available for assessing impaired control over gambling. These include the **Scale of Gambling Choices** (12 items), the **Gambling Urges Scale (GUS)** (six items) and the **Gambling Self-Efficacy Questionnaire (GSEQ)** (16 items). While all of these screens assess impaired control, the GSEQ also appears to have utility for treatment planning and outcome evaluation. However, none of these screens have been widely used and it may be that the brevity of the GUS is preferable.

An alternative approach would be to use the full **Canadian Problem Gambling Index (CPGI)** (33 items) to assess changes in a variety of aspects of gambling involvement and problem gambling correlates, including faulty cognitions, alcohol and drug use and problems, suicidal ideation and depression. However, more work needs to be done to assess the sensitivity of this instrument in assessing behavioural change over shorter time periods.

Conclusion

Early conceptualisations of problem gambling were based primarily on clinical experience and expert group consensus (Govoni et al., 2001). The few tools that were developed during this period to identify problem gamblers reflect the strong psychological and behavioural perspective that has largely informed problem gambling research. Recent emergence of a public health approach to gambling problems, particularly evident in Australia, Canada and New Zealand, has led to a focus on 'harm' as the foundation of several new measures of problem gambling (Battersby et al., 2002). Researchers in these countries have argued that a focus on harm is more appropriate for determining the socioeconomic impacts of gambling in the community. However, they also believe that this perspective is useful in screening for individuals who have, or may be, at risk for developing into problem gamblers (Thomas et al., 2003). Despite claims to a broader perspective, the problem gambling measures developed in Australia and Canada continue to include many items used in earlier screens and reflect a continued emphasis on the behavioural aspects of problem gambling.

While measures of problem gambling should ideally rest on theoretical principles, constraints in resources often lead clinicians and researchers to seek out the most practical assessment tools - those that are short and require little or no training to administer and score. Brevity and ease of administration have certainly been important factors in the widespread adoption of the SOGS. These factors are also important in the rapid adoption of the PGSI for prevalence research in a number of jurisdictions. As brief screens for problem gambling continue to be developed, it is likely that these will be rapidly adopted for use even in the absence of good information about their performance in a range of different settings.

Despite continued lack of conceptual clarity, the pragmatic demands imposed by the rapid expansion of legalised gambling have led researchers and clinicians to develop or seek out relatively brief, easily administered screens to measure the extent and degree of problem gambling in a range of settings. Perhaps due to the lack of funding for basic psychometric research as well as the importance of establishing and maintaining comparability over time and across jurisdictions, problem gambling researchers and clinicians have continued to use only a few tools to serve most or all of these sometimes disparate purposes (Thomas et al., 2003).

The gambling studies field will continue to grapple with fundamental questions about the nature of problem gambling. Debate continues about whether gambling disorders comprise a single, sharply distinguished pathological entity or lie on a continuum, with no symptoms and florid pathological gambling as its respective endpoints (Blaszczynski, 2000; Blaszczynski & McConaghy, 1989; Productivity Commission, 1999; Shaffer & Hall, 1996; Slutske et al., 2000; Toce-Gerstein, Gerstein & Volberg, 2003a). Another topic of debate is the question of what cut-off score within the diagnostic criteria yields the most accurate classification. Yet another topic is whether sub-clinical 'problem gambling' should be recognised and, if so, with what criteria and cut-off score (Orford, 2003; Petry, 2003b; Rosenthal, 2003; Toce-Gerstein, Gerstein & Volberg, 2003b). While work is needed to examine the underlying conceptualisation of problem gambling, it is equally clear that efforts to prevent and treat gambling problems will not wait on the resolution of these fundamental questions.

4.2 Interviews

Individual face-to-face interviews were conducted with representatives of each of the participating service provider organisations. A total of 19 interviews was conducted. The participants in the interviews were selected by recommendation of the manager of each organisation, based on staff availability and workload at the time the interviews were conducted. Since the number of participants was small, the results detailed on the following pages should be viewed with caution. They may reflect only the views of the participants and may not be representative of the views of New Zealand problem gambling service provider clinicians as a whole. However, it should be noted that major problem gambling service provider organisations provided staff to participate in the interviews; this included three national service providers (helpline and face-to-face counselling), a long running Maori service provider, a Pacific service provider¹², and an Asian service provider. In addition, for the two national face-to-face organisations, participants were recruited from two distinct locations, Auckland in the North Island and Christchurch in the South Island, in order to minimise locational bias in the responses.

The interviews were conducted face-to-face, with the interviewer visiting the service provider's premises, utilising a semi-structured questionnaire (see Appendix 2) that was designed to generate responses to the first three research aims, namely:

- Review screening and assessment instruments currently used by Ministry of Health funded problem gambling service providers
- Ascertain what problem gambling service providers want to achieve by screening and assessing clients
- Ascertain how problem gambling service providers use current screening and assessment data and whether the screens/assessments deliver the required information (including in terms of cultural/ethnic variations and requirements)

Responses to the interview questionnaire were recorded on paper by the interviewer. As the questionnaire included open-ended questions, the interview was also tape recorded so that an accurate record of the longer answers could be obtained, following transcription.

The interview responses were entered into the SPSS (12.0) statistical package for analysis. As the interviews were undertaken using a semi-structured format the analysis of the data is primarily descriptive, examining the frequency of answers to key questions. Open-ended answers were coded prior to analysis.

The abbreviation in parentheses for each organisation has been used in the following tables of data.

Telephone Helpline (TH)
National Service Provider 1 (NP1)
National Service Provider 2 (NP2)
Maori Service (MS)
Pacific Service (PS)
Asian Service (AS)
Alcohol and Drug Rehabilitation Trust (ADT)

4.2.1 Demographic data

Of the 19 people interviewed, seven were male and twelve were female. Sixteen participants were clinicians at the time of the interview, spending between 40 to 100 % of their working

¹² Subsequently, staff from another Pacific service provider also provided feedback to this part of the project.

time seeing/speaking with clients. The remaining three participants were managers at the time of the interview, spending up to five percent of their time with clients; however, they had all previously been clinicians and each had substantial experience counselling clients. Thus, each participant was sufficiently experienced to be valuable in terms of imparting information in regard to this research project.

4.2.2 Timing of screening/assessing clients

Gambling-related clients

All the participants usually screen/assess their gambling-related clients¹³ at either the first or second interview. Two participants also screen/assess at discharge (end of treatment). The majority of participants (14/19) also screen/assess their gambling-related clients at other times during the therapeutic process; this is generally to follow-up clients to monitor progress or for clients who re-admit to a service. There did not appear to be any differences between organisations with two exceptions: a) At the helpline, discharge is not relevant as the organisation is a first point of contact and generally refers clients to face-to-face services or provides follow-up monitoring services (Integrated Continuing Care), b) At the rehabilitation trust, as this is a residential service, screening occurs at varying times during the 30-day period of residence.

'Significant other' clients

All participants, other than the rehabilitation trust, usually screen/assess 'significant other' clients¹⁴ at either the first or second interview; none repeat the process at discharge. The majority of participants (13/19) also screen/assess 'significant other' clients at other times; this is generally as a follow-up to monitor progress but also if the client appears distressed/depressed or raises a new issue. At the rehabilitation trust, there are family group meetings and counselling to address issues pertinent to the family of the treatment-seeker.

The Pacific service indicated that in a Pacific household, the partner usually attends the counselling session at the second interview with the gambling-related client.

4.2.3 Gambling-related information required at screening/assessment

Participants were asked, as an open-ended question, 'when you assess/screen a gambling-related client, what aspects of the gambling do you need to know about?' The main responses are presented in Table 1.

There appears to be a core range of gambling-related information that clinicians wish to elicit from their clients during the screening/assessment process. The common themes included: the main concerns of the client and whether they were in crisis, gambling relapse triggers, the extent and impact of the client's gambling, the frequency of gambling, the client's motivation for treatment, the amount of money lost through gambling/the extent of debt caused by gambling, whether there have been any periods of abstinence from gambling and their duration, and the primary mode of gambling. This core range was common between the different organisations with a few exceptions.

The helpline was more concerned with the clients' main concerns and current crisis situation than with any other aspects. This is to be expected given that the helpline is more often than not a first port of call for a client who is in crisis. Interventions given by the helpline are usually brief with clients subsequently being referred to local face-to-face counselling

¹³ Gambling-related clients refers to those people seeking help for their own gambling problem.

¹⁴ 'Significant other' clients refers to those people seeking assistance in coping with someone else's gambling problem, often a spouse or partner.

services. The Pacific service was also more concerned with clients' main concerns and current crisis situation than with other aspects.

The rehabilitation trust staff were more concerned about comorbidities with gambling and relapse triggers. Again, this is to be expected given the residential nature of the organisation and given that it's main focus is on addictions other than gambling.

Two other areas of information required were whether there was any gambling-related criminal activity and whether the client was taking any medication. Both these areas were only mentioned by one participant each.

Table 1 - Gambling-related information required at screening/assessment

Key information required	TH	NP2	NP1	AS	MS	PS	ADT
Main concerns/crisis	√	√		1		√	
Relapse triggers				1			√
Extent/impact of gambling		√	3	1	√		1
Frequency of gambling		√	√	1	√		
Motivation for treatment		2			1		
Amount of money lost/debt		4	4	1	√		
Periods and durations of abstinence		1	√				
Mode of gambling		1	1	1	1		
Comorbidities							√
Related criminal activity		1					
Any medication being taken			1				
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants from the organisation required that information. Where not all participants require the same information, a figure denotes the number of participants who mentioned the category.

4.2.4 Other information required at screening/assessment

Participants were asked, as an open-ended question, 'when you assess/screen a gambling-related client, what other aspects about that person do you need to know about?' The main responses are presented in Table 2.

Again, there appears to be a core range of information that is necessary for clinicians to elicit from their gambling-related clients during the screening/assessment process. Some of these overlapped with the information considered to be 'gambling-related' detailed in Table 1. The common themes included: whether depression was comorbid, client safety/risk assessment (including suicide ideation), family/social supports and social history, work history and the existence of comorbidities. The two national service providers were similar in the range of additional information that they elicited: whether the client experienced trauma, the mental and physical health status of the client and the financial history of the client.

However, with the 'other' information required, there was more variation between and within (individual preference) the organisations than with the 'gambling-related' information discussed previously.

The Asian service was concerned with issues relating to migration; not surprising given that a large proportion of Asians in New Zealand are immigrants. The Maori service detailed cultural issues and replacement activities as being important to the Maori cultural framework within which they operate. The rehabilitation trust staff were concerned about the spiritual base of their client. Again, this is to be expected given that the organisation is based on a 12-step approach to recovery, which recognises the existence of a 'higher power'.

Other areas of information required were treatment history, clarification of inconsistencies in what the client says and whether any medications are being taken by the client. These areas were mentioned by individual participants only.

Table 2 - Other information required at screening/assessment

Key information required	TH	NP2	NP1	AS	MS	PS	ADT
Depression	1	1				√	
Safety/risk assessment	1	3	1			√	
Supports/social history	1	4	3	√	√		√
Work history		1	2	1			
Comorbidities		3	2		1		
Trauma		1	1				
Mental health		3	1				
Physical health		1	1				
Financial		2	1				
Treatment history			1		1		
Migrant issues				√			
Cultural issues					1		
Replacement activities					1		
Clarify inconsistencies	1						
Spiritual base							√
Medications		1					
<i>Number of participants</i>	<i>2</i>	<i>5</i>	<i>5</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>2</i>

A tick (√) indicates that all participants from the organisation required that information. Where not all participants require the same information, a figure denotes the number of participants who mentioned the category.

4.2.5 Screens used

All participants with the exception of the Pacific service stated that the same set of tools was used at each assessment/screening (dependent on whether the client was a gambler or a 'significant other'). At the Pacific service, the assessments used depend on the clients' behaviours and thoughts at the time of contact. Table 3 details the screens currently used with gambling-related clients.

Of the Ministry of Health funded service providers (the rehabilitation trust is not Ministry funded) all apart from the Pacific service use the SOGS-3M and the Dollars Lost assessment with gambling-related clients. The Control over Gambling assessment is used by all except for the helpline and the rehabilitation trust. The DSM-IV gambling criteria are monitored by participants from the helpline, National Service Provider 2, the Pacific service and the rehabilitation trust. One participant from National Service Provider 1 uses DSM-IV gambling criteria for legal processes/reports only. However, it should be noted that the helpline has developed ten questions to ask clients from the ten DSM-IV diagnostic criteria for problem gambling, rather than performing clinical assessment of the clients relating to each of the criteria. In addition, the questions are ordered differently from the diagnostic criteria.

In terms of other gambling screens, one participant from National Service Provider 1 uses the EIGHT screen¹⁵ and rehabilitation trust participants use the CGS which is an unvalidated 34-question assessment incorporating the SOGS as well as other questions relating to gambling plus one question each on suicide and visits to see a doctor.

¹⁵ The EIGHT Screen is also used by participants from the second Pacific Service, which provided information to this part of the project.

Participants from all organisations apart from the helpline and the Pacific service routinely screen for depression though the type of screen used varies between organisations and, in many cases, within organisations. The most commonly used screens are the Beck Depression Inventory (BDI) (or a shortened form of it) (Beck et al., 1961) and the CES-Depression Scale (Radloff, 1977). Participants from the same organisations also routinely screen for alcohol use disorders utilising AUDIT (Alcohol Use Disorders Identification Test) (Saunders et al., 1993). In terms of other substance misuse screens, National Service Provider 2 and the Maori service will screen for cannabis abuse. National Service Provider 2 uses an unvalidated 11-item 'cannabis abuse screen test'.

Suicidality is occasionally screened for, if considered necessary, by the national service providers and the Asian service. However, the method of screening varies dependent on the practitioner conducting the screen. The helpline will also assess a client's suicidal tendencies but a formal screen is not used. A similar situation exists for anxiety screening by the helpline and the national service providers with four different modes of screening utilised.

The Maori service routinely uses Te Whare Tapa Wha with their clients. This is a holistic model of health which provides a framework when working with Maori for any aspects relating to physical or mental health (Durie, 1994). One of the Asian service participants screens for mode of gambling with the clients.

Table 3 - Screens used with gambling-related clients

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
SOGS-3M	√	√	√	√	√		
Dollars Lost assessment	1	√	√	√	√		
Control over Gambling		√	√	√	√	√	
DSM-IV gambling criteria	√	√	1			√	√
Other gambling screens							
EIGHT Screen			1				
CGS							√
Depression							
BDI/BDI (shortened)		3	1	1			√
CES-D		2					
BDI or CES-D					√		
Privately developed			1				
Not detailed				1			
Alcohol use/misuse							
AUDIT		√	4	√	√		NA
Other substance misuse							
Cannabis		4			√		NA
Suicidality							NA
Mental Status Questionnaire		1					
Single question		1	1				
In-house developed			1	1			

Table 3 - Screens used with gambling-related clients - continued

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
Anxiety							
Brief anxiety screen	√	1					
Burns anxiety scale		1					
State-trait anxiety inventory			1				
Fear of Negative Evaluation Scale		1					
Other							
Te Whare Tapa Wha					√		
Mode of gambling				1			
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants from the organisation used that screen. A figure denotes the number of participants who used the screen if it was not used by all.

NA Not applicable. Assessed prior to admission to rehabilitation trust.

4.2.6 SOGS-3M

Specific usefulness of SOGS-3M

Responses to the question ‘in what way specifically does the SOGS-3M help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to measure client progress, b) to raise awareness with/about the client, or c) not useful.

Measure client progress

Three of the 19 participants use the SOGS-3M specifically to measure client progress during therapy. These included the two helpline participants who only use the SOGS-3M as part of the Integrated Continuing Care follow-up package with clients who have completed treatment at a face-to-face counselling service, and by one national service provider participant.

Raise awareness

Half of the participants (10/19) use the SOGS-3M specifically to raise awareness around the client’s gambling. These included all participants from the Maori and Asian services, and six participants from the two national service providers.

Not useful

The SOGS-3M was deemed not to be useful by four participants; the Pacific service¹⁶, and three from the national service provider organisations.

The question was not applicable to the rehabilitation trust which does not use SOGS-3M.

Other uses of SOGS-3M

Responses to the question ‘what other uses, if any, does the SOGS-3M have?’ fell into broad categories which could be described as: a) to measure client progress, b) to raise awareness with/about the client, c) for comparisons, d) for funding purposes, e) to build rapport, or f) none.

Measure client progress

Two of the 19 participants use the SOGS-3M as a secondary use to measure client progress. Both of these participants were from National Service Provider 2.

¹⁶ Participants from the second Pacific service provider indicated that the SOGS-3M was useful to measure client progress.

Raise awareness

Three of the 19 participants use the SOGS-3M as a secondary use to raise awareness with/about the client. All three were from the national service provider organisations.

For comparisons

Four of the 19 participants use the SOGS-3M as a secondary use for comparative purposes (e.g. within or between clients, over time within the organisation). These included the two participants from the Maori service, and one participant each from the Asian service and National Service Provider 2.

For funding

Two of the 19 participants use the SOGS-3M as a secondary use specifically to receive funding from the Ministry of Health. This included one participant from each of the national service providers.

To build rapport

One National Service Provider 1 participant uses the SOGS-3M as a secondary use to build rapport with the client.

Not useful

The SOGS-3M was deemed not to have a useful secondary purpose by four participants; the helpline and one each from the Asian service and National Service Provider 1.

The question was not applicable to the rehabilitation trust which does not use SOGS-3M.

It can be seen that there is some overlap with the previous question in that measuring client progress and raising awareness occur as responses to both questions. It appears that some clinicians will use SOGS-3M to measure client progress or raise awareness with/about the client as a *primary* purpose (and thus will detail these responses to the first question) whilst other clinicians will use the screen in that manner as a *secondary* purpose (and thus will detail those responses to the second question). In some cases, raising awareness was both the primary and secondary purpose for using the SOGS-3M, in those cases the type of awareness raising was slightly different between the primary and secondary purposes, for example:

“Establishes their motivation and recognition of problem....” (Primary purpose)

“Magnitude and effects of harm to self” (secondary purpose)

Importance of SOGS-3M uses

The participants were asked how important the previously discussed uses of SOGS-3M were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The participants who felt that overall the SOGS-3M uses were important or very important to them as practitioners included the Maori service and National Service Provider 2.

The participants who felt that on the whole the SOGS-3M uses were not important or of limited use/importance to them as practitioners included the helpline, National Service Provider 1 and the Asian service.

It was noted that there was not complete consensus between participants from each of the national service providers and that in general the two national service providers had opposing views regarding the importance of the SOGS-3M uses to them as practitioners. Findings are presented in Table 4.

Table 4 - Importance of SOGS-3M uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH		√				2
NSP1		1	2	2		5
NSP2	3		2			5
AS	1	1				2
MS			√			2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

The majority of the participants using the SOGS-3M felt that its uses to their organisation were important only to receive funding from the Ministry of Health. The exception were the helpline participants who felt that the SOGS-3M uses were not important or of limited use/importance to their organisation. Findings are presented in Table 5.

Table 5 - Importance of SOGS-3M uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH	1	1					2
NSP2			3	1	1		5
NSP1		1	4				5
AS		1	1				2
MS			√				2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

The participants who felt that on the whole the SOGS-3M uses were not important or of limited use/importance to their clients included the helpline, the Maori service and the Asian service.

With the two national service providers, the participants varied over the range of not important to very important for the SOGS-3M uses for their clients. Findings are presented in Table 6.

Table 6 - Importance of SOGS-3M uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH	√					2
NSP2	1	1	1	2		5
NSP1	2	1	2			5
AS		√				2
MS		√				2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the SOGS-3M be improved?

The majority of respondents using the SOGS-3M (14/15) felt that it could be improved. In terms of how and why the screen could be improved, the responses generally fell into the following categories:

- Too long especially in the crisis situation of helpline or face-to-face clients
- Language/wording not all suited to a New Zealand context, for example the use of 'loan sharks'
- Cultural inappropriateness such as the questions around borrowing money
- The three-month timeframe is inappropriate; some of the questions do not readily fit into that short timeframe and it does not work with some clients such as those in prison or self-excluded from venues
- Some questions are repetitive and ambiguous which can be misleading especially for those clients lacking social relationships

Should the SOGS-3M be used?

Over half of the respondents (9/15) using the SOGS-3M felt that it should continue to be used; four felt that it should no longer be used and two did not know whether it should continue to be used or be stopped.

Of the nine participants who felt that SOGS-3M should continue to be used, two clarified this stating that it should continue to be used until a better screen could be found and another participant stated that the SOGS-3M needed to be reviewed.

Of the four participants who felt that SOGS-3M should no longer be used, two clarified that this meant the screen in its current form and a third participant stated that it needed to be replaced.

Practical issues in obtaining reliable information using SOGS-3M

The majority of participants using the SOGS-3M (15/16) agreed that there were practical issues in obtaining reliable information through its use. The responses generally included the following categories:

- Clients may not tell the truth especially if significant others are present
- Culturally inappropriate
- Used as a self-reported screen - any self-report is unreliable
- Timeframe inappropriate
- Organisation has asked that the three-month timeframe is disregarded, so data is not valid
- Language/wording not all suited to a New Zealand context
- Too long

Many of these issues corroborated responses to the previous question on how and why the SOGS-3M could be improved.

How the results from SOGS-3M are used

The majority of participants use results from SOGS-3M to collect data for their organisations. Monitoring client progress, creating a treatment plan with the client and feeding back results to clients were also common amongst the participants though not all used the results for all of those purposes. The helpline also uses the SOGS-3M results to relay back to the face-to-face agencies - this is part of the Integrated Continuing Care package of follow-up provided by the helpline to clients who have completed face-to-face counselling. Findings are presented in Table 7.

Table 7 - How the results from SOGS-3M are used

	Monitor client progress	Create a treatment plan	Data collection for organisation	Feedback to clients	Other reason	Not applicable	No. participants
TH	√	√	1	√	Relay information to face-to-face agencies		2
NSP2	2	2	√	4	Educate/encourage client; statistical analyses		5
NSP1	3	2	√	3	-		5
AS	1	√	√	√	-		2
MS	√	0	√	0	Move client forward		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.7 Dollars Lost assessment

Specific usefulness of Dollars Lost assessment

Responses to the question ‘in what way specifically does the Dollars Lost assessment help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to measure client progress, b) to raise awareness with/about the client, c) for comparisons, or d) not useful.

Measure client progress

Two National Service Provider 2 participants use the Dollars Lost assessment specifically to measure client progress during therapy.

Raise awareness

Half of the participants (9/19) use the Dollars Lost assessment specifically to raise awareness around the client’s gambling. These included both participants from the Maori service, and seven participants from the national service provider organisations.

For comparisons

The helpline uses the Dollars Lost assessment specifically for comparative purposes in the Integrated Continuing Care process.

Not useful

The Dollars Lost assessment was deemed not to be useful by three participants; the Asian service and one participant from National Service Provider 1.

Although the Pacific service had reported that the Dollars Lost assessment was not currently used with gambling-related clients, it was reported in answer to this question that the assessment was used to refer clients to a budgeting service.

The question was not applicable to the rehabilitation trust which does not use the Dollars Lost assessment.

Other uses of Dollars Lost assessment

Responses to the question ‘what other uses, if any, does the Dollars Lost assessment have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for comparisons, c) for funding purposes, or d) not useful.

Raise awareness

Two of the National Service Provider 2 participants use the Dollars Lost assessment as a secondary use to raise awareness with/about the client.

For comparisons

Four of the 19 participants use the Dollars Lost assessment as a secondary use for comparative purposes (e.g. marking progress of clients). These included one participant each from the Asian service, the two national service provider organisations and the helpline.

For funding

One National Service Provider 1 participant uses the Dollar Lost assessment as a secondary use specifically to receive funding from the Ministry of Health.

Not useful

The Dollars Lost assessment was deemed not to have a useful secondary purpose by four participants; three participants from the national service provider organisations and one from the Asian service.

The question was not applicable to the rehabilitation trust which does not use the Dollars Lost assessment.

It can be seen that there is some overlap with the previous question in that raising awareness and using the tool for comparisons occur as responses to both questions. For the two participants who responded with raising awareness for both questions, the tool appeared to be used as a ‘shock factor/jolt’ in the first instance and then was used to look at financial issues subsequently. The helpline participant who also used the tool for comparative purposes as a secondary use (as opposed to the primary use in the Integrated Continuing Care process) used the tool to show the client the changes in their losses over time.

Importance of Dollars Lost assessment uses

The participants were asked how important the previously discussed uses of the Dollars Lost assessment were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The participants who felt that on the whole the Dollars Lost assessment uses were important or very important to them as practitioners were from National Service Provider 2¹⁷.

The participants who felt that on the whole the Dollars Lost assessment uses were not important or of limited use/importance to them as practitioners included National Service Provider 1 and the Asian service.

The Maori service participants were divided with one stating that the assessment was of limited use/importance to them as a practitioner and the other stating that the assessment was very important.

As with the SOGS-3M assessment, again it was noted that in general the two national service providers had opposing views regarding the importance of the Dollar Lost assessment uses to them as practitioners. Findings are presented in Table 8.

Table 8 - Importance of Dollars Lost assessment uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2			2	3		5
NSP1	1	3		1		5
AS	√					2
MS		1		1		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

The majority of the participants using the Dollars Lost assessment felt that its uses to their organisation were important only to receive funding from the Ministry of Health. Individual participants from the national service providers also felt that the assessment's uses were not important or of limited use/importance to their organisation (National Service Provider 1) or were important/very important to their organisation (National Service Provider 2). Findings are presented in Table 9.

¹⁷ The participants from the second Pacific Service also found the Dollars Lost assessment to be very important to them as practitioners.

Table 9 - Importance of Dollars Lost assessment uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH						√	2
NSP2			3	1	1		5
NSP1	1	2	2				5
AS			√				2
MS			√				2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

Apart from the helpline which only uses the Dollars Lost assessment with Integrated Continuing Care clients, in general the participants who use the assessment felt that uses were important/very important to their clients.

However, with the two national service providers, the participants varied over the range of not important to very important for the Dollars Lost assessment uses for their clients. Findings are presented in Table 10.

Table 10 - Importance of Dollars Lost assessment uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		2	1	2		5
NSP1	1	1	2	1		5
AS			√			2
MS				√		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the Dollars Lost assessment be improved?

The majority of respondents using the Dollars Lost assessment (12/15) felt that it could be improved.

In terms of how and why the tool could be improved, the responses generally fell into the following categories:

- Needs to be a comparison tool
- Term 'Dollars Lost' needs to be clarified (between dollars lost, spent and won, viewed in proportion to earnings or total debt)
- Timeframe inappropriate (clients cannot always remember each week for four weeks, not good for measuring binge gambling, need to know total debt since starting gambling)

Should the Dollars Lost assessment be used?

This question was only answered by participants from the two national service providers and the Asian service. The majority of these respondents (10/12) felt that the assessment should continue to be used; two felt that it should no longer be used.

Of the two participants who felt that Dollars Lost assessment should no longer be used, one participant stated that it needed to be measured in a different manner and the other stated that Asian clients will not always give truthful answers.

Practical issues in obtaining reliable information using the Dollars Lost assessment

The majority of respondents using the Dollars Lost assessment (11/14) agreed that there were practical issues in obtaining reliable information through its use. The responses generally included the following categories:

- Needs to be a comparison tool
- May be unreliable due to inaccurate reporting/bias recall or time of assessment (due to client's access to cash such as paydays)
- Used as a self-reported screen - any self-report is unreliable
- Clients may not tell the truth especially if significant others are present

Some of these issues corroborated responses to the previous question on how and why the Dollars Lost assessment could be improved.

How the results from the Dollars Lost assessment are used

The majority of participants use results from the Dollars Lost assessment to collect data for their organisations. Monitoring client progress, creating a treatment plan with the client and feeding back results to clients were also common amongst the participants, though not all used the results for all of those purposes. The helpline participants were divided by one who used the Dollars Lost assessment and one who did not use it. Findings are presented in Table 11.

Table 11 - How the results from the Dollars Lost assessment are used

	Monitor client progress	Create a treatment plan	Data collection for organisation	Feedback to clients	Other reason	Not applicable	No. participants
TH	1	1	1	1		1	2
NSP2	√	4	√	√	Develop relationship with partner		5
NSP1	√	3	√	4	Track binge gambling and access to cash		5
AS	√	1	√	1	Compare over time		2
MS	√	√	√	√	Educational purpose		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.8 Control over Gambling assessment

Specific usefulness of the Control over Gambling assessment

Responses to the question ‘in what way specifically does the Control over Gambling assessment help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, or b) for comparisons.

Raise awareness

Most of the participants (15/19) use the Control over Gambling assessment specifically to raise awareness around the clients’ gambling. These included all participants except those from the helpline and the rehabilitation trust who do not use the Control over Gambling assessment.

For comparisons

One participant from the helpline uses the Control over Gambling assessment specifically for comparative purposes in the Integrated Continuing Care process.

Other uses of the Control over Gambling assessment

Responses to the question ‘what other uses, if any, does the Control over Gambling assessment have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) to measure client progress, or c) not useful.

Raise awareness

Six participants use the Control over Gambling assessment as a secondary use to raise awareness with/about the client. These included four participants from the national service provider organisations, and one participant each from the Maori and Asian services.

Measure progress

Two of the 19 participants use the Control over Gambling assessment as a secondary use to measure client progress during the therapeutic process. These included one participant each from National Service Provider 1 and the Pacific service.

Not useful

The Control over Gambling assessment was deemed not to have a useful secondary purpose by five participants; one participant each from the Asian service and the Maori service, and three participants from the national service provider organisations.

The question was not applicable to the rehabilitation trust which does not use the Control over Gambling assessment.

It can be seen that there is some overlap with the previous question in that raising awareness occurs as a response to both questions. For the six participants who responded with raising awareness for both questions, the tool sometimes appeared to be used for similar reasons for both purposes whilst with other participants there were slight differences between the areas around the clients’ gambling where awareness was raised with/about the client in terms of the primary and secondary purposes of using the tool.

Importance of the Control over Gambling assessment uses

The participants were asked how important the previously discussed uses of the Control over Gambling assessment were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The participants who felt that on the whole the Control over Gambling assessment uses were important or very important to them as practitioners were National Service Provider 1, the Maori service and the Pacific service.

The participants who felt that on the whole the Control over Gambling assessment uses were not important or of limited use/importance to them as practitioners included National Service Provider 2 and the Asian service.

As with the SOGS-3M assessment, again it was noted that in general the two national service providers had opposing views regarding the importance of the Control over Gambling assessment uses to them as practitioners. Findings are presented in Table 12.

Table 12 - Importance of Control over Gambling assessment uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2	1	2	2			5
NSP1		2	2	1		5
AS	1	1				2
MS			1	1		2
PS				1		1
ADT					√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

The majority of the participants using the Control over Gambling assessment felt that its uses to their organisation were important only to receive funding from the Ministry of Health. Individual participants from the national service providers also felt that the assessments uses were either important or not important. One Asian service participant also felt that use of the tool was not important to the organisation. Findings are presented in Table 13.

Table 13 - Importance of Control over Gambling assessment uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH						√	2
NSP2	1	1	2		1		5
NSP1		1	3	1			5
AS	1		1				2
MS			√				2
PS			√				1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

The two national service provider participants were split between those who felt that the Control over Gambling assessment was of limited use/importance to their clients and those who thought it was an important tool to use with clients.

The Maori and Pacific¹⁸ service participants felt that the tool has an important or very important use with clients whilst the Asians service providers were split between thinking that the tool was either not important or important. Findings are presented in Table 14.

Table 14 - Importance of Control over Gambling assessment uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		2	3			5
NSP1		3	2			5
AS	1		1			2
MS			√			2
PS				√		1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the Control over Gambling assessment be improved?

Half of the respondents using the Control over Gambling assessment (8/15) felt that it could be improved.

In terms of how and why the tool could be improved, the responses generally fell into the following categories:

- Needs to be rephrased with less words
- Needs to be more flexible
- Questions should be re-ordered with the ‘out of control’ questions before the ‘in control’ questions
- The three-month time frame is too long
- Language/wording not suited to Asians
- Should focus more on feelings

Should the Control over Gambling assessment be used?

Just over half of the respondents to this question (8/14) felt that the assessment should continue to be used; six felt that it should no longer be used.

Of the six participants who felt that the Control over Gambling assessment should no longer be used, four gave reasons; one participant stated that it needed to be measured in a different manner, one stated that Asian clients will not always give truthful answers, one stated that if implemented well that it was useful for Pacific people and another stated that nothing would be lost by not using the tool.

Practical issues in getting reliable information using the Control over Gambling assessment

Half of the respondents using the Control over Gambling assessment (7/13) agreed that there were practical issues in obtaining reliable information through its use. The responses generally included the following categories:

- Depends on initial relationship (rapport/trust) established with the client
- May be misunderstood by client
- Used as a self-reported subjective screen - any self-report is unreliable
- Language could be too strong for Asians

¹⁸ The participants from the second Pacific service felt that the Control over gambling assessment was of little importance to their clients.

- The three-month time frame is not suitable

Some of these issues corroborated responses to the previous question on how and why the Control over Gambling assessment could be improved. However, it should be noted that one national service provider respondent likes the subjective nature of the screen.

How the results from the Control over Gambling assessment are used

The majority of participants use results from the Control over Gambling assessment to collect data for their organisations. Monitoring client progress, creating a treatment plan with the client and feeding back results to clients were also common amongst the participants though not all used the results for all of those purposes. Findings are presented in Table 15.

Table 15 - How the results from the Control over Gambling assessment are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH						√	2
NSP2	3	2	√	4			5
NSP1	√	4	√	√	To understand past behaviour		5
AS	√	1	√	√			2
MS		√	√	√	To show client progress		2
PS	√			√			1
ADT						√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.9 DSM-IV gambling criteria

It is pertinent to remind readers at this stage that the DSM-IV gambling criteria were used in different ways by different organisations and that one organisation has developed ten questions from the criteria (that are subsequently reported as DSM-IV gambling criteria); these ten questions are ordered differently from the DSM-IV diagnostic criteria.

Specific usefulness of the DSM-IV gambling criteria

Responses to the question ‘in what way specifically do the DSM-IV gambling assessment criteria help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for referrals, c) for legal reports, or d) not useful.

Raise awareness

Seven of the 19 participants use the DSM-IV gambling criteria specifically to raise awareness around the client’s gambling. These included three participants from National Service Provider 2, one participant from the helpline and all participants from the Pacific service and the rehabilitation trust.

For referrals

One participant from National Service Provider 2 uses the DSM-IV gambling criteria specifically for referring clients to other agencies, if required

For legal reports

One participant from National Service Provider 1 uses the DSM-IV gambling criteria specifically, when required, to prepare reports for legal proceedings.

Not useful

One participant each from National Service Provider 2 and the helpline felt that the DSM-IV gambling criteria were not useful.

Other uses of the DSM-IV gambling criteria

Responses to the question ‘what other uses, if any, do the DSM-IV gambling assessment criteria have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for comparisons, or c) not useful.

Raise awareness

Four participants use the DSM-IV gambling criteria as a secondary use to raise awareness with/about the client. These included all participants from the helpline and Pacific service and one participant from National Service Provider 2.

For comparisons

One National Service Provider 2 participant uses the DSM-IV gambling criteria as a secondary use to validate other assessments of the client.

Not useful

The DSM-IV gambling assessment criteria were deemed not to have a useful secondary purpose by one participant from National Service Provider 2.

It can be seen that there is some overlap with the previous question in that raising awareness occurs as a response to both questions. For the three participants who responded with raising awareness for both questions, the tool appeared to be used for similar reasons for both purposes.

Importance of DSM-IV gambling criteria uses

The participants were asked how important the previously discussed uses of the DSM-IV gambling assessment criteria were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The DSM-IV gambling criteria appeared to be a tool that was not consistently used by the participants, sometimes being used when required for a reason (e.g. the legal report detailed previously) or if considered warranted with a particular client. In particular, the Maori and Asian services and National Service Provider 1 do not routinely use this tool. Findings are presented in Table 16.

On the whole, of those participants who routinely use the DSM-IV gambling criteria as an assessment tool, the majority felt that the uses were important or very important to them as practitioners.

One helpline and one National Service Provider 2 participant felt that on the whole the DSM-IV gambling criteria uses were not important or of limited use/importance to them as practitioners.

Table 16 - Importance of DSM-IV gambling criteria uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH		1		1		2
NSP2	1		2	1	1	5
NSP1					√	5
AS					√	2
MS					√	2
PS				√		1
ADT			1		1	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

The helpline participants felt that use of the DSM-IV gambling criteria assessment was of limited use/importance to their organisation. The National Service Provider 2 participants were divided in their opinions as to the use of the tool to their organisation. Findings are presented in Table 17.

Table 17 - Importance of DSM-IV gambling criteria uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH		√					2
NSP2	1	1	1	2			5
NSP1						√	5
AS						√	2
MS						√	2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

The participants were divided as to the importance of the DSM-IV gambling criteria uses for their clients. Findings are presented in Table 18.

Table 18 - Importance of DSM-IV gambling criteria uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH			1	1		2
NSP2	2	1	1		1	5
NSP1					√	5
AS					√	2
MS					√	2
PS			1			1
ADT			1		1	2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the DSM-IV gambling criteria be improved?

Almost all of the respondents using the DSM-IV gambling criteria (10/11) felt that it could be improved.

In terms of how and why the tool could be improved, the responses generally fell into the following categories:

- The second question ('Do you feel happier or less depressed while you are gambling?') is "pointless", "silly", "embarrassing" and needs to be shorter
- The tool is exclusive rather than inclusive focusing on the impulse disorder, diagnosis and the problem; it is pathologising
- It could be more specific
- The way the tool is used by the organisation is not always reliable

Should the DSM-IV gambling criteria be used?

Just under half of the respondents to this question (6/11) felt that the assessment should continue to be used; four felt that it should no longer be used and one had no opinion.

Of the four participants who felt that the DSM-IV gambling criteria should no longer be used, three felt that it should be replaced with a better assessment, one gave no further comment.

Practical issues in getting reliable information using the DSM-IV gambling criteria

Almost all of the respondents using the DSM-IV gambling criteria (9/10) agreed that there were practical issues in getting reliable information through its use. The responses generally included the following categories:

- Score can be inconsistent with client's perception of level of problem
- Clients may not tell the truth (some organisations use the criteria in a questionnaire format)
- Difficult to be understood by clients, difficult implementation and interpretation

Some of these issues indicate that the assessment may not be being used as a clinical diagnostic tool (for which it was designed) but that the clients may be asked to respond to the criteria as though the tool were a questionnaire.

How the results from the DSM-IV gambling criteria are used

Of those participants who use the DSM-IV gambling criteria, there were varied ways in which the results were used, with no organisational specific trends being apparent. Findings are presented in Table 19.

Table 19 - How the results from the DSM-IV gambling criteria are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH	1	1	√	√			2
NSP2		2	3	1	To recommend treatment to other agencies		5
NSP1					For legal process		5
AS						√	2
MS						√	2
PS	√						1
ADT	√	√		√			2

A tick (√) indicates that all participants from the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.10 Depression assessment

As detailed in Section 4.2.5, screening for depression is not consistent, with different tools being used within and between organisations.

Specific usefulness of a screen for depression

Responses to the question ‘in what way specifically does the screen for depression help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for referrals, or c) not useful.

Raise awareness

Six of the 19 participants use a screen for depression specifically to raise awareness around the client’s depression comorbid with their gambling. These included five participants from the national service provider organisations and one participant from the Maori service.

For referrals

Four of the 19 participants use a screen for depression specifically to guide referrals to General Practitioners or mental health services or to assess risk to the clients. These included one participant from each of the two national service provider organisations, the Asian service and the Maori service.

Not useful

One participant each from the Asian service and the Pacific service felt that a screen for depression was not useful.

Other uses of a screen for depression

Responses to the question ‘what other uses, if any, does the screen for depression have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for referrals, or c) not useful.

Raise awareness

Four participants use a screen for depression as a secondary use to raise awareness with the client. These included one participant each from National Service Provider 2 and the Asian service, and both participants from the Maori service.

For referrals

Four participants use a screen for depression as a secondary use to refer the clients to a General Practitioner, if required. These included three participants from the national service providers, and one from the Asian service.

Not useful

A screen for depression was deemed not to have a useful secondary purpose by one participant from National Service Provider 2.

It can be seen that there is some overlap with the previous question in that raising awareness and using the screen to make referrals occurs as a response to both questions. The single participant who responded with raising awareness for both questions, uses the screen to raise awareness around depression as the primary purpose and around the comorbidity of depression with gambling as a secondary purpose. In terms of using a screen for depression to make referrals, there was no overlap between this being the primary or secondary purpose (i.e. the screen was either used to make referrals as the primary purpose *or* the secondary purpose, not both).

Importance of depression screening uses

The participants were asked how important the previously discussed uses of the screen for depression were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

Almost all of the participants who routinely use a screen for depression felt that the uses were important or very important to them as practitioners. Findings are presented in Table 20.

The only exception was one participant from National Service Provider 2 who felt that the screen for depression uses were of limited use/importance to them as a practitioner.

Table 20 - Importance of depression screening uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		1	1	3		5
NSP1				2	3	5
AS			1	1		2
MS				√		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

Almost all of the participants who routinely use a screen for depression felt that the uses were important or very important to their organisation. Findings are presented in Table 21.

The only exception was two participants from National Service Provider 2 who felt that the screen for depression uses were of limited use/importance to their organisation.

Table 21 - Importance of depression screening uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH					1	√	2
NSP2		2		1	2		5
NSP1					2	3	5
AS						√	2
MS					√		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

Almost all of the participants who routinely use a screen for depression felt that the uses were important or very important to their clients. Findings are presented in Table 22.

The only exception was one participant from National Service Provider 2 who felt that the screen for depression uses were of limited use/importance to their clients.

Table 22 - Importance of depression screening uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		1	3	1		5
NSP1				3	2	5
AS				1	√	2
MS				√		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the screen for depression be improved?

Half of the respondents using a screen for depression (7/15) felt that it could be improved. One participant stated that the screen itself was not a problem; the problem lay in the fact that the participant had not received training in how to correctly use the screen.

In terms of how and why the tool could be improved, the responses generally fell into the following categories:

- It is only a snapshot - needs to be explained to the client (Beck Depression Inventory)
- Need an updated version (Beck Depression Inventory)
- Language can be too complicated for Asians (Beck Depression Inventory)
- Culturally inappropriate (Beck Depression Inventory - shortened form)
- Could be replaced with a single question (CES-depression scale)
- Participant not trained in the correct use of the screening instrument

Should a screen for depression be used?

Almost all of the respondents to this question (10/11) felt that a screen for depression should continue to be used; one respondent felt that a shorter screen for depression would be adequate (that respondent currently uses the CES-depression scale).

Practical issues in getting reliable information using a screen for depression

A majority of the respondents using a screen for depression (8/13) agreed that there were practical issues in getting reliable information through its use. The responses generally included the following categories:

- Needs translating for clients whose first language is not English (Beck Depression Inventory - shortened form)
- Needs a culturally appropriate introduction as to how it will assist the client (Beck Depression Inventory)
- Used as a self-reported screen - any self-report is unreliable (Beck Depression Inventory, privately developed screen)
- Questions are confusing (CES-depression scale)

Many of these issues tie in with the responses to the previous question on how and why the screen for depression could be improved.

How the results from the screen for depression are used

Of those participants who use a screen for depression, the screen tended to be used for all the tabulated reasons by each organisation. In addition, using the screen to be able to refer the client to a General Practitioner (if necessary) was a common theme. Findings are presented in Table 23.

Table 23 - How the results from the depression screen are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH						√	2
NSP2	2	√	3	4	Education, risk assessment, referral to GP		5
NSP1	2	2	1	2	Educate client	3	5
AS	1	√	1	√	Referral to GP		2
MS	√	√	√	√	Referrals		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.11 Assessment for alcohol use/misuse

As detailed in Section 4.2.5, all participants screening their clients for alcohol use/misuse used the AUDIT.

Specific usefulness of the AUDIT

Responses to the question ‘in what way specifically does the screen for alcohol use/misuse help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for referrals, or c) none.

Raise awareness

A majority of the participants (12/19) use AUDIT specifically to raise awareness around the client’s alcohol use comorbid with their gambling. These included all the participants from National Service Provider 2 and the Maori service, four participants from National Service Provider 1 and one participant from the Asian service.

For referrals

The Pacific service participant¹⁹ uses AUDIT specifically to guide referrals to an alcohol counsellor.

Not useful

One participant from the Asian service felt that AUDIT was not useful since few Asian clients have alcohol problems.

Other uses of AUDIT

Responses to the question ‘what other uses, if any, does the screen for alcohol use/misuse have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, or b) to build rapport with the client. In addition, in response to this question, one participant stated that alcohol misuse is strongly correlated with problem gambling.

Raise awareness

Six participants use AUDIT as a secondary use to raise awareness with/about the client. These included four national service provider participants and both participants from the Maori service.

¹⁹ Participants from the second Pacific service use AUDIT to raise awareness about the clients’ alcohol use comorbid with gambling.

Build rapport

One Asian service participant uses AUDIT as a secondary use to build rapport with clients in terms of discussing stress management and skill development.

It can be seen that there is some overlap with the previous question in that raising awareness occurs as a response to both questions. For the six participants who responded with raising awareness for both questions, the tool appeared to be used for similar reasons for both purposes.

Importance of AUDIT

The participants were asked how important the previously discussed uses of AUDIT were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

Almost all of those participants who routinely use AUDIT felt that the uses were important or very important to them as practitioners. Findings are presented in Table 24 overleaf.

The exceptions were one participant from each of the national service providers and both participants from the Asian service, who felt that AUDIT uses were of limited use/importance to them as a practitioner.

Table 24 - Importance of AUDIT uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		1	2	2		5
NSP1		1	1	1	1	5
AS		√				2
MS			√			2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

Responses to this question varied dependent on the individual participant. However, both the Maori service participants agreed that use of AUDIT was very important to their organisation. Findings are presented in Table 25.

Table 25 - Importance of AUDIT uses to the organisation

	Not important	Limited use/ importance	Important only to receive funding	Important	Very important	Not applicable	Total
TH						√	2
NSP2		1	2	1	1		5
NSP1	1	2		1		1	5
AS	1		1				2
MS					√		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

A majority of those participants who routinely use AUDIT felt that the uses were important or very important to their clients. Findings are presented in Table 26.

Three participants felt that AUDIT uses were of limited use/importance to their clients.

Table 26 - Importance of AUDIT uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		2	3			5
NSP1		1	1	1	1	5
AS		1	1			2
MS			√			2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could AUDIT be improved?

One third of the respondents using AUDIT (4/13) felt that it could be improved.

In terms of how and why the tool could be improved, the responses generally fell into the following categories:

- A guideline as to what a standard drink is, is required
- A heading and subtitles are required
- Could be replaced with a single question to reduce the time taken with this screen

Should a screen for alcohol use/misuse be used?

A majority of the respondents to this question (9/13) felt that AUDIT should continue to be used. Of the four participants who felt that AUDIT should no longer be used, the reasons related to: Why alcohol should be selected above other comorbidities for screening, that AUDIT should be replaced with a simpler tool, and that it should only be used for clients who indicate that they drink. One participant did not give a reason for their response.

Practical issues in getting reliable information using AUDIT

Just under half of the respondents using AUDIT (6/13) thought that there were practical issues in getting reliable information through its use. The responses generally included the following categories:

- It is confusing with the different time frames
- A guideline as to what a standard drink is, is required
- Questions should be grouped under risk and dependence headings
- Used as a self-reported screen - any self-report is unreliable
- May be misunderstood by clients whose first language is not English
- Would be more useful with a scale to show levels of problem drinking rather than a single cut-off score

Some of these issues tie in with the responses to the previous question on how and why the AUDIT could be improved.

How the results from AUDIT are used

Of those participants who use AUDIT, the screen tended to be used for all the tabulated reasons by each organisation, although results from the screen were least likely to be used for monitoring client progress. In addition, using the screen to be able to refer the client to other agencies (if necessary) was a common theme. Findings are presented in Table 27 overleaf.

Table 27 - How the results from AUDIT are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH						√	2
NSP2	1	3	4	√	Referrals to other agencies		5
NSP1	2	3	4	3	Referrals to other agencies		5
AS	1	√	√	1	Stress management		2
MS	√	√	√	√			2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.12 Assessment for other substance use/misuse

As detailed in Section 4.2.5, National Service Provider 2 and the Maori service will screen for cannabis abuse. Although four of the National Service Provider 2 participants will use a screen for cannabis, only two participants use it regularly and responded to the questions relating to the cannabis screen.

Specific usefulness of the screen for cannabis

Responses to the question ‘in what way specifically does the substance misuse screen help you in assessing a gambling-related client?’ could be categorised as raising awareness with/about the client.

Raise awareness

Half of the respondents (4/7) use a cannabis screen specifically to raise awareness with/about the client. These included all the participants from the Maori service and two participants from National Service Provider 2.

Other uses of the screen for cannabis

The respondents had no responses to the question ‘what other uses, if any, does the substance misuse screen have?’

Importance of the cannabis screen

The participants were asked how important the previously discussed uses of the cannabis screen were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The two Maori service respondents and one National Service Provider 2 respondent felt that the cannabis screen was important/very important to them as practitioners; however, the other National Service Provider 2 respondent who uses a cannabis screen felt that its uses were of limited use/importance. Findings are presented in Table 28 overleaf.

Table 28 - Importance of the cannabis screen uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2		1	1		3	5
NSP1					√	5
AS					√	2
MS				√		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

Responses to this question varied dependent on the organisation. The Maori service participants agreed that use of a cannabis screen was very important to their organisation whilst the two National Service Provider 2 respondents felt that the cannabis screen was important to the organisation only to gather data. Findings are presented in Table 29.

Table 29 - Importance of the cannabis screen uses to the organisation

	Not important	Limited use/ importance	Important only for data gathering	Important	Very important	Not applicable	Total
TH						√	2
NSP2			2			3	5
NSP1						√	5
AS						√	2
MS				√			2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

All four respondents who routinely use a screen for cannabis felt that the uses were important or very important to their clients. Findings are presented in Table 30.

Table 30 - Importance of the cannabis screen uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH					√	2
NSP2			√			5
NSP1					√	5
AS					√	2
MS				√		2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the cannabis screen be improved?

Only one of the four respondents using a screen for cannabis felt that it could be improved. That person wished that it was designed more like the AUDIT so that the client was not put into a 'box'.

Should a screen for cannabis use be used?

All four of the respondents using a screen for cannabis felt that it should continue to be used.

Practical issues in getting reliable information using the screen for cannabis

All four of the respondents using the screen for cannabis thought that there were practical issues in getting reliable information through its use. The responses generally included the following categories:

- It is subjective
- Clients lie because cannabis use is illegal
- It should be simpler and more 'friendly'

How the results from the screen for cannabis are used

Of those participants who use a screen for cannabis, the screen was used for all the tabulated reasons by both the Maori service and National Service Provider 2, except for monitoring client progress which was not endorsed by the two National Service Provider 2 participants. In addition, the Maori service respondents use the screen to be able to refer the client to other agencies (if necessary). Findings are presented in Table 31.

Table 31 - How the results from the screen for cannabis are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH						√	2
NSP2		2	2	2			5
NSP1						√	5
AS						√	2
MS	√	√	√	√	Referrals for treatment		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.13 Assessment for suicidality

As detailed in Section 4.2.5, suicidality is occasionally screened for, if considered necessary, by the two national service providers and the Asian service. The helpline will also assess a client's suicidal tendencies but a formal screen is not used.

Specific usefulness of the screen for suicide

Responses to the question 'in what way specifically does the screen for suicidality help you in assessing a gambling-related client?' could be categorised as raising awareness with/about the client.

Raise awareness

The six respondents to this question use a suicide screen specifically to raise awareness with/about the client. These included two participants each from the national service provider organisations and one participant each from the Asian service and the helpline.

Other uses of the screen for suicide

Responses to the question ‘what other uses, if any, does the screen for suicidality have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, b) for referrals, or c) none.

Raise awareness

Three of the five respondents use a suicide screen as a secondary use to raise awareness with/about the client. These included one participant each from the two national service provider organisations and the helpline.

For referrals

One Asian service participant uses a suicide screen as a secondary use to refer to other agencies if the client’s safety is at risk.

Not useful

One participant from National Service Provider 1 felt that the screen for suicide had no secondary use.

It can be seen that there is some overlap with the previous question in that raising awareness occurs as a response to both questions. For the three participants who responded with raising awareness for both questions, the tool appeared to be used for similar reasons for both purposes.

Importance of the suicide screen

The participants were asked how important the previously discussed uses of the suicide screen were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The majority of the respondents (5/6) felt that the suicide screen was important/very important to them as practitioners; however, one National Service Provider 1 participant felt that its uses were of limited use/importance to them as a practitioner. Findings are presented in Table 32.

Table 32 - Importance of the suicide screen uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH				1	1	2
NSP2			1	1	3	5
NSP1		1	1		3	5
AS			1		1	2
MS					√	2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

Two thirds of the respondents (4/6) felt that the suicide screen was important/very important to their organisations; however, one participant from both of the national service provider organisations felt that its uses were of limited use/ importance to their organisations. Findings are presented in Table 33.

Table 33 - Importance of the suicide screen uses to the organisation

	Not important	Limited use/ importance	Important only for funding	Important	Very important	Not applicable	Total
TH					1	1	2
NSP2		1			1	3	5
NSP1		1		1		3	5
AS				1		1	2
MS						√	2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

The majority of the respondents (5/6) felt that the suicide screen was important/very important to their clients; however, one National Service Provider 1 participant felt that its uses were of limited use/importance to their clients. Findings are presented in Table 34.

Table 34 - Importance of the suicide screen uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH				1	1	2
NSP2			1	1	3	5
NSP1		1	1		3	5
AS				1	1	2
MS					√	2
PS					√	1
ADT					√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the suicide screen be improved?

Two of the respondents using a screen for suicidality felt that it could be improved.

In terms of how and why the tool could be improved, the responses fell into the following categories:

- It needs to be comparable with what is used by crisis teams and the police etc
- Needs translating for clients whose first language is not English

Should a screen for suicidality be used?

Only one National Service Provider 1 participant felt that a screen for suicidality should no longer be used.

Practical issues in getting reliable information using the screen for suicidality

Three of the respondents using the screen for suicidality thought that there were practical issues in getting reliable information through its use. The responses generally included the following categories:

- Should only be used in a therapeutic relationship
- Organisational risk needs to be managed
- It does not distinguish between suicide and para-suicide ideation

How the results from the screen for suicidality are used

Of those participants who use a screen for suicidality, the screen was used for all the tabulated reasons. In addition, National Service Provider 2 respondents use the screen to be able to refer the client to other agencies (if necessary). Findings are presented in Table 35.

Table 35 - How the results from the screen for suicidality are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH	1	1	1	1		1	2
NSP2	2	2	1	1	For referrals	3	5
NSP1	1	2	2	1		3	5
AS	1	1		1		1	2
MS						√	2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.14 Use of other screens

As detailed in Section 4.2.5, in terms of other screens that are used, one participant from National Service Provider 1 uses the EIGHT screen²⁰, and alcohol and drug rehabilitation trust participants use the CGS which incorporates the SOGS as well as other questions relating to gambling plus one question each on suicide and visits to see a doctor. Anxiety is occasionally screened for, if considered necessary, by the helpline and the two national service provider organisations, with four different modes of screening utilised. The Maori service routinely uses Te Whare Tapa Wha (Maori model of health) as a framework for working with their clients. The Asian service screens for mode of gambling.

Specific usefulness of the other screens

Responses to the question ‘in what way specifically do the other screens help you in assessing a gambling-related client?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, or b) for referrals.

Raise awareness

The majority of respondents to this question (9/10) use the ‘other’ screen specifically to raise awareness with/about the client. These included all participants from the helpline, the Maori service and the rehabilitation trust, two participants from National Service Provider 2 and one participant from the Asian service.

For referrals

One National Service Provider 1 participant uses an anxiety screen specifically to be able to refer the client to General Practitioners or mental health services, if necessary, or for legal reports.

Other uses of the other screens

Responses to the question ‘what other uses, if any, do the other screens have?’ fell into broad categories which could be described as: a) to raise awareness with/about the client, or b) to build rapport with the client.

²⁰ Participants from the second Pacific service also use the EIGHT screen.

Raise awareness

All of the five respondents use the 'other' screen as a secondary use to raise awareness with/about the client. These included two participants from National Service Provider 2, one participant from the helpline, and both participants from the rehabilitation trust.

It can be seen that there is some overlap with the previous question in that raising awareness occurs as a response to both questions. For the four participants who responded with raising awareness for both questions, the tool appeared to be used for similar reasons for both purposes.

Importance of the other screens

The participants were asked how important the previously discussed uses of the 'other' screens were to them as a practitioner, to their organisation and to their clients.

Importance to the practitioner

The majority of the respondents (10/11) felt that the 'other' screen was important/very important to them as practitioners; however, one helpline participant felt that the uses of the anxiety screen were of limited use/importance to them as a practitioner. Findings are presented in Table 36.

Table 36 - Importance of the other screens uses to the practitioner

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH		1	1			2
NSP2			2	1	2	5
NSP1			1		4	5
AS			1		1	2
MS				√		2
PS					√	1
ADT			√			2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the organisation

Only three of the respondents felt that the 'other' screens uses were very important to their organisation. These included the Maori service participants regarding the Te Whare Tapa Wha Maori model of health (used as a framework in the screening process) and one National Service Provider 2 participant regarding an anxiety screen. Findings are presented in Table 37 overleaf.

Four participants felt that the 'other' screens' uses were not important or of limited use/importance to their organisations. These included both participants from the helpline and one participant from each of the national service provider organisations.

Two participants felt that the 'other' screens' uses were important to their organisations purely for data gathering. These included one participant each from National Service Provider 2 and the Asian service.

The rehabilitation trust participants felt that the CGS screen's uses had no relevance to their organisation.

Table 37 - Importance of the other screens uses to the organisation

	Not important	Limited use/ importance	Important only for data gathering	Important	Very important	Not applicable	Total
TH	1	1					2
NSP2	1		1		1	2	5
NSP1		1				4	5
AS			1			1	2
MS					√		2
PS						√	1
ADT						√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Importance to the clients

The majority of the respondents (8/11) felt that the 'other' screen was important/very important to their clients; however, one participant from each of the helpline, National service Provider 2 and the Asian service felt that its uses were not important/of limited use/importance to their clients. Findings are presented in Table 38.

Table 38 - Importance of the other screens uses to the clients

	Not important	Limited use/ importance	Important	Very important	Not applicable	Total
TH		1	1			2
NSP2	1		1	1	2	5
NSP1				1	4	5
AS		1			1	2
MS				√		2
PS					√	1
ADT			√			2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Could the other screens be improved?

Two of the respondents using a brief anxiety screen (unknown whether the same brief screen is used) felt that it could be improved because the reason for its use is not clear and sometimes its use is irrelevant.

Should other screens be used?

One National Service Provider 2 participant felt that the brief screen for anxiety should no longer be used.

Practical issues in getting reliable information using the other screens

Three of the respondents using 'other' screens thought that there were practical issues in obtaining reliable information through the use of those screens. The responses generally included the following categories:

- Used as a self-reported screen - any self-report is unreliable (anxiety screens)
- Needs translating for clients whose first language is not English (when asking client's mode of gambling)

How the results from the other screens are used

Of those participants who use ‘other’ screens, the screens generally were used for all the tabulated reasons, though to different extents dependent on the organisation. In addition the Te Whare Tapa Wha Maori model of health is used as a framework within a cultural context by the Maori service to assist the family of the gambling-related client, and the CGS screen is used by the rehabilitation trust as a therapeutic measure. Findings are presented in Table 39.

Table 39 - How the results from the other screens are used

	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH	√	√	1	1			2
NSP2	2	3	1	3		2	5
NSP1	1	1	1	1	For referrals	3	5
AS		1	1			1	2
MS	√	√		√	To assist family		2
PS						1	1
ADT					Therapeutic measure		2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.15 Screen used individually or in combination

Participants were asked whether they used the screens previously discussed individually or in combination, with their clients. Findings are presented in Table 40 overleaf.

The majority of participants (14/19) used the screens either in combination or a mixture of individually and in combination. One participant each from the helpline, and the two national service provider organisations²¹ only used the screens individually. The question was not applicable to rehabilitation trust participants.

The main reason for using the screens in combination was to have a holistic understanding of the clients’ current situation. Other reasons included to be able to pool information, to collect statistics, to receive funding and to create a treatment plan.

The Pacific service reported that they would not ask all questions from all screens, i.e. that only the questions that were appropriate for the client were asked.

²¹ The second Pacific service participants also indicated that they only use the screens individually.

Table 40 - Screens used individually or in combination

	Individually	In combination	Both individually and in combination	Comment if in combination	Total
TH	1		1	Information pooled	2
NSP2	1	3	1	For holistic understanding For statistics Part of normal assessment	5
NSP1	1	3	1	Used in combination as appropriate Used to get funding	5
AS		√		For holistic understanding To create treatment plan	2
MS			√	For holistic understanding	2
PS		√		Used in combination as appropriate, not all questions from each screen asked For holistic understanding	1

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.16 'Significant other' screening tools

All the participants apart from those from the rehabilitation trust use the 'family/whanau assessment checklist' which is one of the screens from which data are collated by the Ministry of Health. However, only one of the helpline respondents uses the screen. The question was not applicable to rehabilitation trust participants as the service is a residential centre for those with alcohol and drug problems.

A range of other screens appears to be used with 'significant others'. The type of screen used seems to depend on the organisation. Findings are presented in Table 41.

Table 41 - Screens used with 'significant other' clients

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
Family/whanau assessment checklist	1	√	√	√	√	√	NA
Other							
GAF/Modified GAF - shortened	√						
Significant other checklist		4					
Relationship happiness scale		1					
Risk assessment						√	
Coping with gambler's gambling			2	√			
Depression					√		
Concern rating			1				
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.17 Usefulness of screens for gambling treatment providers

Responses to the question 'in general how useful do you think screens are for treatment providers working with gambling-related clients?' were mixed with some participants finding screens useful or very useful whilst others thought screens were not useful or of limited use. Three participants felt that screens were useful only for data collection. However, five of the 19 participants indicated that some screens are very useful and, therefore, by implication, that

other screens are not useful. However, no expansion on which screens were useful was made in response to this question. Findings are presented in Table 42.

Table 42 - General usefulness of screens with gambling-related clients

	Not useful	Limited use	Useful only for data collection	Useful	Very useful	Total
TH		√				2
NSP2		2	1	2		5
NSP1	1	2			2	5
AS			1	1		2
MS		1		1		2
PS			1			1
ADT				√		2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.18 Best set of screens to use

Best screens to provide effective treatment for gambling-related client

Participants were asked to specify, in their opinion, what would be the best screen or set of screens to provide effective treatment for their gambling-related client. Responses were highly varied with no real consensus between or within organisations with the exception of the Maori service. The participants from that service were in agreement that the best set of screens would include a gambling screen and screen for depression and the AUDIT. Findings are presented in Table 43.

Table 43 - Best screens used with gambling-related clients

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
None appropriate			1				
All/some current screens/rewritten/ shortened	1	2	1			1	
Simple/other gambling screen		1			√		
Eight screen	1		1				
SOGS/SOGS-3M		2	1	1			
DSM-IV		1	1				
Dollars Lost assessment		3	1	1			
Control over Gambling assessment		1	1				
Mode of gambling				√			
Depression screen		1			√		
Anxiety screen		2					
Suicide screen		2					
AUDIT/alcohol screen		2		1	√		
Other drug/substance misuse screen		2					
General health screen		1					
Family/whanau assessment			1	1			
Motivation assessment		1					
Whether taking medication		1					
Not applicable/not answered			1				√
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all. Numbers may add up to more than the total participants from each organisation as many respondents stated multiple screens.

Best screens to aid in the Helpline Integrated Continuing Care Process

Participants were asked to specify, in their opinion, what would be the best screen or set of screens to aid in the Helpline Integrated Continuing Care Process. As with the previous question, responses were highly varied with no real consensus between or within organisations. However, an important response from the Asian service participants was that Asian clients do not want telephone contact; they prefer face-to-face meetings with someone who can speak their language. Additionally, since language is a barrier there will be few Asians agreeing to the Integrated Care process. Findings are presented in Table 44.

Table 44 - Best screens to aid Integrated Continuing Care Process

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
None appropriate		2		1			
All/some current screens/rewritten/shortened		1	1			1	
Eight screen		1					
SOGS/SOGS-3M	√	1	1	1			
DSM-IV							
Dollars Lost assessment	1	1	2	1			
Control over Gambling assessment	1	1	2				
Family/whanau assessment			1				
Significant others coping assessment		1	1				
Not applicable/not answered		1			√		√
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all. Numbers may add up to more than the total participants from each organisation as many respondents stated multiple screens.

Best screens to take into account cultural aspects relating to problem gambling

Participants were asked to specify, in their opinion, what would be the best screen or set of screens to take into account cultural aspects in relation to problem gambling. This question elicited responses that varied according to service provider organisation. Findings are presented in Table 45 overleaf.

Both helpline participants felt that the current screens were fine in the telephone context. The majority of the two national service provider participants (8/10) and both Asian service participants and the Pacific Service participant felt that there were currently no culturally appropriate screens available. The Maori service provider participants both agreed that the Maori model of health, Te Whare Tapa Wha was the best framework to use for assessments.

Table 45 - Best screens to take into account cultural aspects relating to problem gambling

Screen	TH	NSP2	NSP1	AS	MS	PS	ADT
None appropriate		√	3	√		1	
Current screens	√						
Te Whare Tapa Wha					√		
Culture-specific questions relating to family life			1				
Not applicable/not answered			1				√
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.19 Benefits of using standard problem gambling screens

Participants responded with a range of benefits to using standard problem gambling screening instruments such as SOGS-3M, DSM-IV gambling criteria or other problem gambling screens. Whilst there was no conclusive consensus within organisations, the most stated benefit (6/19) was that data could be gathered for statistical comparisons. The second most stated benefit (4/19) was for purposes of consistency within the organisation. Findings are presented in Table 46.

Table 46 - Benefits of using standard problem gambling screens

Benefit	TH	NSP2	NSP1	AS	MS	PS	ADT
To receive funding			1				
Track client progress		1	1		1		
Client acceptance of problem	1				1	1	
Indicates severity of problem		1		1			
For consistency	1	2	1				
For data gathering		1	2	1			√
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.20 Problems with using standard problem gambling screens

Participants responded with highly varied opinions as to the problems with using a standard problem gambling screening instrument such as SOGS-3M, DSM-IV gambling criteria or other problem gambling screens. There was no real consensus between or within organisations. Findings are presented in Table 47 overleaf.

Table 47 - Problem with using standard problem gambling screens

Problem	TH	NSP2	NSP1	AS	MS	PS	ADT
No problem		1	1				
Can be pathologising			1				
Used differently by different organisations			1				
Invasive	1						
Too Americanised		1					
Used for the wrong reasons	1				1		
Do not account for client differences		2	1				
Only a snapshot picture		1					
Cause stigma					1	1	
There are too many screens				1			
Should have different screens for self-assessment			1				
Screens too relied upon				1			
Not applicable							√
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.21 EIGHT screen

The majority of participants had heard of the EIGHT screen (18/19) and had used it at some point (13/19). Prior to, and concurrent with, this current project was another project with an objective of obtaining qualitative feedback from service practitioners to enhance the acceptability of the EIGHT Screen, and willingness of practitioners to integrate the EIGHT Screen as an assessment tool in the provision of services. Thus, it is not surprising that the majority of participants in the current project had heard of, and used the EIGHT screen. The purpose for using the EIGHT screen varied considerably dependent on participant and organisation. Four participants stated that they had used the screen for ‘trailing’ or ‘research’ purposes. Three participants used the screen as an early intervention tool (‘quick screen’) for other services (probation and GP). Only one participant had used the screen for assessing clients.

The majority of participants (13/18) thought that the EIGHT screen could potentially be a useful screen for use with gambling-related clients. However, there were some concerns which were as follows:

- Would like it to be re-written (helpline)
- Clients do not think it necessary (Pacific service)
- Not useful with clients who already know they have a problem (NSP1)

Findings are presented in Table 48.

Table 48 - EIGHT screen

	TH	NSP2	NSP1	AS	MS	PS	ADT
Heard of EIGHT screen	√	√	√	√	√	√	1
Used EIGHT screen	√	3	3	1	√	√	1
Purpose of use							
Trialling screen	√		1				
Diagnostic purpose							1
For research		1					
For other agency		1					
Before SOGS-3M was mandatory						√	
In presentations			1				
As quick screen for probation service, GPs etc			1		√		
For assessing clients				1			
EIGHT screen potentially useful	√	3	3	√	√		1
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.22 Victorian Gambling Screen

Only three participants had heard of the Victorian Gambling Screen (both helpline participants and one National Service Provider 1 participant) but none of the three had ever used the screen. Of the three participants, one stated that the screen was not potentially useful, one did not know if it could be useful and the other did not respond.

4.2.23 Canadian Problem Gambling Index

Just under half of the participants had heard of the Canadian Problem Gambling Index (9/19) but only one participant had used the screen just to “play with”. That participant did not think that the screen could be potentially useful with gambling-related clients as it was not culturally specific to a New Zealand context. However, two other participants who had heard of the screen thought that it could potentially be useful. Findings are presented in Table 49.

Table 49 - Canadian Problem Gambling Index

	TH	NSP2	NSP1	AS	MS	PS	ADT
Heard of Canadian Problem Gambling Index	√	4	1	1		√	
Used Canadian Problem Gambling Index			1				
Purpose of use							
Played with screen			1				
Canadian Problem Gambling Index potentially useful	1	1					
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.24 General psychopathology

Participants were asked the question “in your opinion should gambling-related clients also be screened for general psychopathology, for example, using the GHQ-12?” Participants were shown the GHQ-12 assessment. Findings are presented in Table 50.

The majority of respondents (13/17) felt that a screen for general psychopathology should be used. The respondents who did not agree included the Pacific service respondent and one participant each from the helpline and both national service provider organisations. The question was not relevant to the rehabilitation trust participants since the service is residential for clients with alcohol and drug addictions.

Generally, of those respondents who thought that a general psychopathology screen should be used, they felt that it should be used for all the tabulated reasons. However, using the screen for data collection for the organisation was the least endorsed reason. Other reasons for using a general psychopathology screen were considered to be:

- More appropriate to use in the first interview than problem gambling screens (NSP1)
- To start the client talking and to show client progress (NSP2 and Maori service)
- To be able to refer the client for practical help (Asian service)

Table 50 - General psychopathology screen and its use

	Should be used	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	Not applicable	No. participants
TH	1	1	1	1	1			2
NSP2	4	3	4	3	3	To show client progress		5
NSP1	4	3	4	2	3	Better for first interview than other screens		5
AS	√	√	√	1	√	For referrals		2
MS	√	√	√		√	To start client talking		2
PS								1
ADT							√	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.25 Comorbid disorders

Participants were asked the question “in your opinion should gambling-related clients also be screened for comorbid disorders?” Findings are presented in Table 51.

The majority of participants (16/19) felt that a screen for comorbid disorders should be used. The participants who did not agree included the Pacific service²² respondent and one participant each from the helpline and National Service Provider 1. The Pacific service participant clarified the response by indicating that if a client had been referred from an alcohol and drug unit, then a screen for comorbid disorders should be used.

Generally, of those respondents who thought that a screen for comorbid disorders should be used, they felt that it should be used for all the tabulated reasons. However, using the screen to create a treatment plan was the most endorsed reason and to monitor client progress was the least endorsed reason. The Maori service participants also indicated that they would use such a screen to aid in referrals to other specialist services, as required.

²² Participants from the second Pacific service felt that it was important to screen gambling-related clients for comorbid disorders.

Table 51 - Comorbid disorders screen and its use

	Should be used	To monitor client progress	To create a treatment plan	Data collection for organisation	To feedback to clients	Other reason	No. participants
TH	1	1	1	1	1		2
NSP2	√	1	√	3	3		5
NSP1	4	1	3	2	2		5
AS	√	√	√	1	√		2
MS	√	√	√	√	√	For referrals	2
PS							1
ADT	√						2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

Participants were then asked the question “Which comorbid disorders should be screened for?” Findings are presented in Table 52 overleaf.

There was a range of comorbid disorders listed as those which should be screened for. However, there was variability in the responses both between and within organisations.

Mental health, other substance use (in particular alcohol, drugs and tobacco), depression and anxiety were the most endorsed comorbid disorders for which screening was considered to be necessary.

Table 52 - Comorbid disorders which should be screened

Disorder	TH	NSP2	NSP1	AS	MS	PS	ADT
Mental health	1	2	1	1			√
Other substance use (esp. alcohol, drugs, tobacco)		1	2	1	√		√
Anxiety		3		1			
Attention Deficit Hyperactivity Disorder		1					
Obsessive Compulsive Disorder		2					
Impulsivity		1					
Delusions		1					
Depression		2	1		√		
Psychosis		1					
Personality disorders		2	1				
Violent behaviour			1				
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.26 General comments

The final question of the interview was “what else would you like to tell us regarding screening and assessment instruments for gambling-related and ‘significant other’ clients?” Findings are presented in Table 53 overleaf.

There was a range of comments detailed by the participants. However, there was variability in the responses both between and within organisations. Responses ranged from no further comment, to general comments (e.g. screens are a support and provide education) to ideas for improvement (e.g. keep screens simple, only use screens that are needed with each client).

Table 53 - Other comments

Comment	TH	NSP2	NSP1	AS	MS	PS	ADT
Everything covered	1	1	1				
Keep screens simple	1				1		
CES-Depression scale useless		1					
Need New Zealand specific screens		1					
Screens should be for personal use						1	
Hope this research improves the situation			1				
Put information on a separate sheet		1	1		1		
Screens are a support and provide education			1				
More screens like the GHQ-12					1		
Only use screens needed, with each client					1		
Need details on general family history				1			
Significant others - information should be for background details only, not as a screen			1				
<i>Number of participants</i>	2	5	5	2	2	1	2

A tick (√) indicates that all participants in the organisation agreed. A figure denotes the number of participants who agreed if it was not all.

4.2.27 Summary of interview results

Key points from the interview results detailed on the previous several pages have been summarised below, in terms of general and organisational specific results.

General findings

- Screening is usually performed at first or second interview
- Screening also occurs on an 'as-needed' basis during the therapeutic process
- The same set of tools is used at assessments, however, different organisations use different sets of tools
- Screens are generally used in combination, or as a mixture of individually and in combination, to gain a holistic understanding of the client's scenario
- The two national organisations often had opposing views regarding the screening and assessment instruments
- Different organisations have specific purposes and requirements regarding screening tools and assessments
- Core themes required from the screening/assessment process include:

Gambling

- Client's main concerns
- Safety/risk assessment
- Primary mode of gambling
- Relapse triggers
- Extent and impact of gambling
- Frequency of gambling
- Motivation for treatment
- Extent of debt
- Abstinence periods

Other

- Depression
 - Family/social supports and history
 - Work history
 - Comorbidities
- There are perceived difficulties with most of the screening instruments used. Many of these follow the same themes:
 - Language/wording not all suited to the New Zealand multicultural context, e.g. use of 'loan sharks' in SOGS-3M
 - Cultural inappropriateness, e.g. around the questions focused on borrowing money in SOGS-3M
 - Timeframe not suitable
 - Wording ambiguous, e.g. Dollars Lost assessment, Control over Gambling assessment
 - SOGS-3M, Dollars Lost and Control over Gambling assessment
 - Most respondents found the tools useful
 - Most especially use the tools to obtain Ministry funding via data collection
 - The most useful aspect is to raise awareness around the client's gambling
 - Tools could be improved
 - Generally respondents thought the tools should continue to be used, until/unless replaced by better tools
 - DSM-IV gambling criteria
 - This tool is not used consistently
 - It may be being used as a questionnaire rather than a clinical diagnostic tool
 - Depression assessment
 - Different tools used between and within organisations
 - Most respondents who screen for depression find it useful
 - Often, respondents thought the tool used could be improved
 - The majority of respondents thought a screen for depression should be used
 - AUDIT
 - Most respondents found the tool useful
 - The most useful aspect is to raise awareness around the client's alcohol use
 - One third of the respondents felt the AUDIT could be improved
 - Generally respondents thought the tool should continue to be used
 - Cannabis use is occasionally screened for
 - Suicidality is occasionally screened for
 - The majority of respondents thought that a screen for general psychopathology (such as the GHQ-12 assessment) would be useful
 - The majority of respondents thought that a screen for comorbidities would be useful; mental health, alcohol use, drug use, tobacco use, depression and anxiety were the most endorsed
 - The Family/whanau checklist is generally used with significant others; other measures are also used, varying between and within organisations

- Respondents did not have consensus on the general usefulness of screening tools for gambling treatment providers
- Respondents did not have consensus on the best screening tools to provide effective treatment or for the Integrated Continuing Care Process
- Most participants had heard of the EIGHT screen, just under half had heard of the Canadian Problem Gambling Index and only three participants had heard of the Victorian Gambling Screen

Organisationally specific findings

National

- Additionally interested in trauma, mental and physical health and financial history from screening/assessment

Helpline

- Specifically interested in client's main concerns and safety/risk assessment at screening/assessment
- SOGS-3M only used to feedback to counselling services as part of the Integrated Continuing Care process

Alcohol and drug services

- Specifically interested in comorbidities, relapse triggers and spiritual base at screening/assessment
- CGS screen (in-house developed gambling screen incorporating the SOGS) used as a therapeutic measure

Maori

- Cultural issues and replacement activities very important
- Te Whare Tapa Wha model is routinely used to assist the family of the gambler

Pacific

- Specifically interested in client's main concerns and safety/risk assessment at screening/assessment
- Partners often attend the second counselling session
- Screens used depend on the client
- Not all questions within a screen are asked, only those considered relevant to the client are asked

Asian

- Specifically interested in migration issues at screening/assessment
- AUDIT not useful as few Asian clients have alcohol problems

- Few Asians will agree to enter into the Helpline Integrated Care Process as they do not want telephone contact, preferring face-to-face contact with someone who speaks their language

4.3 Focus groups

Focus groups were conducted with representatives of each of the participating service provider organisations. The same participants that took part in the interviews also took part in the focus groups, where possible, as well as additional people who had not previously been part of the interview process. Five focus groups were held with a total of 27 participants. As with the interview data, since the number of participants was small, the results detailed on the following pages should be viewed with caution. They may reflect only the views of the participants and may not be representative of the views of New Zealand problem gambling service provider clinicians as a whole. The first four focus groups consisted of a mixture of service providers per group to enable cross-fertilisation of discussions and comments. The final group focused on Pacific perspectives, at the request of that group. The participants in the focus groups were again selected by recommendation of the manager of each organisation, based on staff availability and workload at the time the focus groups were conducted.

Focus groups were semi-structured to allow scope for participants to elaborate within the areas under question, to enable more detailed responses (see Appendix 2). The question areas were similar to or the same as, some of the open-ended questions within the interview questionnaire. This was deliberate, allowing in-depth responses and probing into the question areas. As with the interview questionnaire, the purpose of the focus groups was to provide responses to the first three research aims.

Focus groups were dual tape-recorded for subsequent data transcription and analysis. The second recording was made as a back-up in case of problems with the main recording such as battery failure. A systematic qualitative analysis of similarities and differences in participants' perceptions was conducted to interpret the data from the transcribed audiotapes in relation to the original research questions. Emerging trends and patterns were grouped according to themes. Responses were ordered into more specific categories for comparative purposes to determine possible cultural differences. A 'picture' of the benefits and barriers relating to the use of the current problem gambling screening instruments and associated assessments emerged as the data analysis proceeded. Qualitative analyses were undertaken using NVivo2 software.

Through the process of examining the dialogue from the focus groups a number of themes presented. Some of these matched themes that had arisen from the preceding interviews, others were new themes that evolved and developed. It was unfortunate that the audio recording from the only focus group conducted in Christchurch was of such poor quality that the data were unable to be utilised in the analyses. However, this is considered to be of little consequence since the two national service provider organisations involved in that group were also represented in the Auckland focus groups and data from the interviews indicated no significant differences between Christchurch and Auckland participants within a service provider organisation.

As noted from the interview data, data from the focus groups indicated that there are perceived difficulties with most of the screening instruments used. These included the language/wording, cultural inappropriateness and unsuitable time frames. Throughout each focus group similar themes were established.

The different service providers agreed in some areas of discussion and had different perspectives in other areas. This was influenced largely by the different modes of interaction they each have with clients. Additionally, the cultural aspects relating to their clients influenced some of the themes and concerns raised within the focus groups. By having the

majority of the focus groups mixed with a selection of participants from different service providers, discussions and comments about such concerns and themes were held across the board.

4.3.1 Language

A unifying theme from the focus groups was concern over the language of the screening instruments. This included both the SOGS-3M and DSM-IV. In particular there was concern over clients' abilities to understand the questions, the time cost and the lost opportunity for building rapport/the therapeutic process when having to reword or explain the questions.

In reference to discussion about the SOGS-3M:

"The problems with it, just thinking of someone I had yesterday, he was an intelligent person but people look at the words and talking them through it, and still going 'auh?'"
(National Service Provider One)

"And some of the questions are a bit ambiguous" (National Service Provider 2)

"Some questions not really relevant, too narrow" (Asian Service Provider)

"We're ignoring the sentence in the last three months, that's with the SOGS" (National Service Provider 1)

In reference to other screens or screens in general:

"...the language of the screen we use, which is the DSM-IV, I know it has been designed by people in pretty high places, but there are a couple of questions in there I always reword and one I don't ever ask, number two I don't think I have ever asked anyone" (Helpline)

"Some of the screens are, the language, as I've said before, I spend half my time interpreting what the screen is saying, it has nothing to do with their intelligence, it's the screens" (Maori Service Provider)

"It doesn't take into account anything that's Maori, Maori words, Maori screens"
(Maori Service Provider)

In addition there was concern over the practitioners' understanding of the questions in screens:

"The one that says total dollars lost, I hate that because for years I did it incorrectly, asked the question wrong" (National Service Provider 1)

4.3.2 Culture

With regard to cultural differences, appropriateness, the New Zealand context and the influence of spirituality, the focus group participants highlighted similar concerns to those raised in the interview process. For example, Asian clients were seen to react differently to other cultures in regard to their problem gambling and help-seeking. Parallels were drawn between different service providers in the focus groups with agreement to the following statement:

"Whilst they don't want to talk about gambling, they also want solution, so let's not talk about what happened to my gambling, lets talk about 'I've got a debt'" (National Service Provider 2)

There were also discussions regarding the need for understanding the local environment for the client, be it cultural, spiritual, relationships or locality.

Within the area of cultural appropriateness of the screening instruments, comments included the need to be aware of the family background and relationships to enable an appropriate use of questions and context:

“You don’t have to be a Samoan or a Niue to understand a little bit about my whakapapa [genealogy], don’t have to be a palagi [European], but just be aware, that’s my point because I’m aware of the Samoan life so I make sure I don’t jump on their mana [respect]” (Pacific Service Provider)

“How long have you been in New Zealand. Maybe roughly where they were born. The Chinese, I think it’s a sub-cultural group, also some information about their family” (Asian Service Provider)

“If I know someone is from the South Island and they’re a Southlander I can work with that person on a personal level with what’s happening for them and their way of thinking and their culture in a way” (Helpline)

“I would completely heal with clinical healing as well as cultural healing, my aiga [family] which is the core of my healing. So aiga is very important to be part of this assessment tool” (Pacific Service Provider)

“I think there should be one way to set up that tool for all New Zealanders and Pacific Islanders, is to set up that assessment tool” (Pacific Service Provider)

4.3.3 Timing

Within the focus groups, timing of screen use was raised and discussion included the different forms of client interaction between service providers. In addition, there was discussion about the mandated timing for use of screening instruments (by the funder), and the association of funding and specific organisational procedures about the use of screens. Agreement was seen with the varying ways of administering the screens and concerns raised regarding balancing the need for statistical information and funding with the need for connection and rapport building with the client.

“We screen to comply I suppose and we do sort of, we do it in various ways” (National Service Provider 2)

“I think its most of the use for the screening is for the agency” (National Service Provider 1)

“The very basic information I always to do for the company” (Asian Service Provider)

“Have to get it on the first one, they might not come back, and if I don’t get it all I can’t record it as a stat. I find myself caught” (National Service Provider 1)

“I think screening has a purpose, but I think the timing is vital, for the Helpline, just a basic short screen for anyone that is in doubt” (Helpline)

“Timing, benefit of getting more information to whanau that we see, also if I have hunch a screen can be useful to back that up and clarification for the hunch” (Maori Service Provider)

“They walk in to talk about gambling and all they do is fill in forms, and ‘right we’ll discuss the rest next week’ the timing is totally wrong” (Helpline)

“I don’t generally screen right at the beginning significant others. I get them to do it at home or at the end... because we’ve just had the session, so it totally skews the research” (National Service Provider 1)

“What someone doesn’t want to see is me pulling out a whole lot of forms, especially if it’s the first time they are there” (Maori Service Provider)

The discussions also focused on the different forms of client interaction and progressed to the additional information sought by the service providers including assessment of risk, crisis and the need to develop a rapport that would ensure the client would receive the best individual service.

“Sometimes that is a tight squeeze in an hour, cos’ there is a certain amount of stats that you feel I’ve got to get so that I can record this person but what’s more important is establishing some sort of connection” (National Service Provider 1)

“My experience [screens] at Helpline, of limited use because the people are ringing up in distress” (Helpline)

“I don’t want to be feeling that I’ve got to get these questions asked, their needs are first and forget about the SOGS” (Maori Service Provider)

“I wouldn’t personally like to have to sit there and say I’ve got a questionnaire here to fill out, I like the way I can use it so I don’t see that as a problem. It would become a problem if there was a standard way” (Helpline)

“It’s just critical that time is spent initially [to build the rapport]” (Pacific Service Provider)

4.3.4 Other information

The ideas raised in the focus groups extended beyond those of the client interviews to include more information about the complexity of the counselling relationship and the use of holistic approaches. Other important aspects of assessment were raised including cultural healing, mental health issues, more discussion about the necessity to build up rapport and the uniqueness of each person’s journey.

“[Comorbidity] would come out in the story and its more of a prompt for us to ask questions so we can screen them in that way” (Helpline)

“Using the screen as a prompt than as a questionnaire because used as a questionnaire it does feel a bit uncomfortable for clients” (National Service Provider 2)

“... conversation with somebody for an hour and a half, you’re going to get a lot more information” (Helpline)

“One of the disadvantages I see of screens is we might have a tendency to sort of put too much importance on screens as such not realising that the screen itself is the tool for the therapist, not the other way round” (National Service Provider 2)

“So it’s all about the right approach, and the Pacific Island clinician should be more culturally appropriate and aware” (Pacific Service Provider)

Comments about comorbidity screening, referrals and the process of raising awareness all surfaced. A number of screens and comorbidities were discussed with the main concerns from all groups being suicidality, risk assessment and safety. Other areas of multiple interest were alcohol, drugs, mental health issues and depression. The ability to pick and choose appropriate screens, if and when they were needed, was also discussed as it was felt that there can be negative impacts if some screens are forced on clients or approached inappropriately.

“It’s very important they know the screen is a snapshot because if they fill that form in by themselves and they are very depressed, that sends them further into deeper depression, so some forms have to be done really clearly and they have to be told and there has to be stuff around the forms which is handled very carefully” (Helpline)

“We only screen alcohol if there is a reason to believe that it is somehow an issue” (National Service Provider 2)

“It’s an excellent way for me to do quick referrals to doctors and mental health professionals by getting the screens” (National Service Provider 1)

4.3.5 Screening instruments

Positive use of screens

The use of screening instruments for measuring client progress and education were seen as positive reasons for their use. The ability to have a standardised starting point and a link between different service providers was also discussed as being positive. This also helps with the administrative side for some service providers, especially when different clinicians are treating the same client.

“We need to establish a starting point for the client and that’s sort of in anticipation that we will be going back to that further on treatment” (National Service Provider 2)

“We can open the database and open the log and you can see where they’ve been screened so we can see that this has been an issue in the past. What’s happening with it now, so it keeps their motivation going” (Helpline)

“It benefits the process, it provides a prompt for the practitioner and it also provides a tool for awareness, for generating inside reflection by clients” (National Service Provider 2)

“They can be used to track progress” (National Service Provider 1)

“Also use them to feed back to the client progress or lack of progress over time... its helpful with integrated care” (National Service Provider 2)

“It’s useful for clients to raise their awareness because sometimes, no I don’t have a problem but I just lose too much money, I don’t have a problem. I can control it, I do control it. Then I say we have some questionnaire you can go through, maybe the questionnaire can let you think more about it and something you may not have thought about before” (Asian Service Provider)

Negative impacts and concerns about the use of screens

In addition to the areas discussed under the language, culture and timing of screen use, a number of other concerns regarding the use of screening instruments were raised in the focus groups. Some of these were touched on in the interviews but the focus groups allowed for greater discussion of these concerns and the possible negative impacts of screen use.

“There’s not many of us that are on the phone that I spoke to today that would actually use it as a questionnaire” (Helpline)

“Only maybe half of them go through the formal assessment” (Asian Service Provider)

“I think to read it as a set piece it wouldn’t be beneficial, using it as a prompt is great” (Helpline)

“They didn’t really look at the questions as such but on the other hand if I show them the screen, get them to complete the questions it becomes as you say, quite somehow harsh and unnatural” (National Service Provider 2)

“I’m using this as a tool for my practice and I have to be very careful that doesn’t restrict the practice and become an obstacle in relationships with clients” (National Service Provider 2)

“One of the disadvantages I see of screens is we might have a tendency to sort of put too much importance on screens...another disadvantage of having the screens it somehow negates the subjective experience with the client and you often hear clients say I feel that, I’ve heard clients complain to me” (National Service Provider 2)

“DSM-IV I think is completely useless” (National Service Provider 2)

“I know it [the screens] freaks them out a lot...There is anxiety around screens” (National Service Provider 2)

“I have used the screen and for various reasons the person has got a fairly low score, when clearly they have got a problem and they’re very concerned about their problem....that’s really put another little hurdle in the middle of a new relationship you’re building up” (Helpline)

“You inherit it [a screen], its sort of word of mouth you get trained but it doesn’t mean you’re trained correctly because you just inherit it, its just like Chinese whispers” (National Service Provider 1)

4.3.6 Other screening instruments

In addition to the discussions about comorbidity and referrals, service providers touched on the subject of a number of screening instruments they currently use and questions or topics they like to use regarding the client’s gambling and about other aspects of the client’s life. There was generally a large overlap between the different services providers in these discussions and no disagreements were raised to any comments by other group members.

The discussion included but was not limited to:

- General: mental health, community support, family, community, workplace, control, trust by significant others, general questions regarding anxiety levels, depression, self harm, suicidal thoughts (current and past), safety, motivation to seek help, migration, personal stresses, grief, personal abuse, self confidence, spiritual support, alcohol,

drugs, smoking, social and cultural assessments of whole family, holistic wellbeing, physical health, networks, personal goals

- Gambling: mode of gambling, history, frequency, amount, triggers, progression, pictures of past gambling, what has worked in the past, total dollars lost, duration

4.3.7 How screening instruments are used

The way in which screening instruments are used is different for different service providers. This is influenced by the mode of interaction the clinician has with the client, the time available and the risk of negatively impacting the client's commitment to treatment.

During the focus groups there were many comments about how screens are not used as intended, in a questionnaire format, by the clinician and how if they were to be administered in such a way there would be further negative results. In contrast, some screens were used as designed with positive outcomes in the counselling environment. These differences appear to depend on the particular screen, the situation of the client at the time and the method of interaction with the service provider.

Screening instruments used as intended

The screening instruments are often used as per the purpose for which they were designed, with the participants seeing the benefits of utilising such tools.

“At the GH [helpline] I think screening is a basic tool if someone is not sure if they have a gambling problem or if someone has told them to call us” (Helpline)

“It benefits the process, it provides a prompt for the practitioner and it also provides a tool for awareness, for generating inside reflection by clients” (National Service Provider 2)

“It's a link between us and the counsellor, the face-to-face counsellor as well so it's a good link” (Helpline)

“I think the family checklist is quite useful” (Asian Service Provider)

“[the positive use of screens] how much they bet and I think with the gambling total dollars lost, a lot of clients realise after looking through it and trying to figure it out in their head how much they gambled in the last seven days” (National Service Provider 2)

“I like the SOGS, and in terms of total dollars lost, I agree with it that it is the first time they have had to think about it” (National Service Provider 2)

“I think standardisation is probably a good thing even though I hate putting people in boxes” (National Service Provider 1)

“I find those tools great and I do have criticisms of them but I think they're excellent in that sometimes I inherit a client off a past counsellor and I just haven't got time to go through all the notes to see progress or just to get a quick snapshot of a client and I can do that quickly from the screens” (National Service Provider 1)

“The other thing too particularly with SOGS, one thing which can be helpful for them is to say these are also being used for research so that we can be better at helping people and that can by use of that, instil hope” (Helpline)

Screening instruments used differently

The screening instruments were also often not used in the way that might be expected, for example the client might not actually be asked the questions, and the tool might not be used in the first assessment session with the client, or may even not be used at all.

“We all have to fill in the screen because that goes to statistics however, there’s not many of us that are on the phone that I spoke to today that would actually use it as a questionnaire” (Helpline)

“If you somehow weave it into a story, into the conversation. For me I suppose that would be how screens are important because it sort of gives me a prompt if I look at the screens and look at the questions, sort of like an assessment guide for me that I would need to ask these questions” (National Service Provider 2)

“Some of us screen like you describe and some of us sort of not in the first session but maybe in the second or third session after the relationship depending on the crisis that they come with” (National Service Provider 2)

“I think that all depends on the format. I wouldn’t personally like to have to sit there and say I’ve got a questionnaire here to fill out, I like the way I can use it so I don’t see that as a problem. It would become a problem if there was a standard way” (Helpline)

“For the Helpline, apart from just maybe some indicator of what’s going on, they [screens] really have no personal [use] or purpose at all” (Helpline)

“I don’t always use them in the first session so it might be over time that I gather that information but [with] the longer clients and with integrated care they’re great” (National Service Provider 1)

“As far as other screens go I’ll incorporate them as I think necessary” (National Service Provider 2)

“For me personally my experience at Helpline, of limited use because the people are ringing up in distress. They’re very often, the first thing is I need help with my problem” (Helpline)

“Firstly it’s just important to have a talanoa [talking] session during that first session which is not even specific to a questionnaire” (Pacific Service Provider)

“Discussed earlier about when a person comes to see a counsellor they don’t want to answer questions they want answers to their problems” (Pacific Service Provider)

4.3.8 Summary of focus group results

Key points from the focus group results detailed on the previous several pages have been summarised below.

Language

There was concern regarding the language used in the screening instruments, in particular:

- The wording can be ambiguous
- The questions are not relevant to the client
- The timeframe may not be appropriate for the client
- The practitioner may not understand the questions

Cultural

Cultural issues are a major consideration, whether it is culture based on ethnicity or geographical location; there is a need to understand the client's local environment (cultural, spiritual, relationships or locality).

Timing

The timing of use of screening instruments was considered very important with the need to reach a balance between screening to obtain data for statistical information (to receive funding) versus the connection and rapport building with the client.

Other information

The need for other information from a client assessment (such as comorbidity information) was considered important especially if referral to other services was warranted. The way in which screening instruments could be used by the counsellor to help the client was also a key issue.

Positive use of screening instruments

The use of screening instruments for measuring client progress and education was seen to be positive. Screening instruments were also viewed as useful in facilitating communication between different clinicians and different service provider organisations.

Negative use of screening instruments

In addition to the previously mentioned concerns regarding use of screening instruments, other concerns were raised such as:

- Can be unnatural to the therapeutic process
- Screens can negate the subjective experience of the client
- Clients can have anxiety around screens
- The screen score may not reflect the client's perceptions around the problem
- Practitioners need training in the use of screens

How screening instruments are used

The screening instruments are sometimes used as designed/required for the CLIC database with positive/beneficial outcomes:

- Prompts practitioner
- Generates awareness
- Links counsellor and client
- Useful for practitioners 'inheriting' a client

However, screening instruments are not always used as designed/required because of perceived negative and non-beneficial outcomes:

- Screens not used as questionnaires
- Screens not used in first assessment
- Screens only used as considered necessary by counsellor

4.4 Assessment of SOGS-3M and DSM-IV archival data

Assessment of archival data from the participating service providers to determine item analysis/internal consistency of SOGS-3M and DSM-IV gambling criteria (where possible) was conducted. The aim was to look at 100 records per screen per ethnic group (European/Pakeha, Maori, Pacific, Asian) and also within gender and age groups, where possible. The relevance of these screens to the PGSI 9-item screen and to the Victorian Gambling Screen was assessed. Access to these archival records was via two means.

Firstly, the Gambling Helpline holds full electronic records in a database format. In addition, data relevant to screening instruments for specific face-to-face clients (randomly assigned as detailed below) on the Integrated Continuing Care programme were provided to the researchers by the Gambling Helpline.

Secondly, the Ministry of Health owns the National Counselling Statistics database (referred to as the CLIC database) which holds electronic records regarding screening and assessment instruments from clients accessing Ministry of Health funded face-to-face problem gambling counselling service providers. However, the database only holds a record of summary scores for each screen and not the individual items which were required for item analysis. Thus, from the database details provided to the researchers, a random list of clients was created covering the four ethnic groups being investigated in this project (European/Pakeha, Maori, Pacific, Asian). One hundred and twenty client ID's for each ethnic group (i.e. a total of 480 clients) were randomly selected in this way from the service providers participating in the project. The service providers were asked to provide photocopies of the relevant information for each client ID supplied to them by the researchers, ensuring that any client personal details were not copied (e.g. client name). This component relied heavily on data being available, accessible and of a standard and quality to enable rigorous evaluation. Some data were missing or not of rigorous quality.

These quantitative data were analysed using the SPSS (12.0) statistical package. Analyses were undertaken at item- and scale-level. Item-level analyses included the determination of mean and distribution characteristics of each item in the SOGS-3M and DSM-IV. These analyses were conducted for the total sample and separately for European/Pakeha, Maori, Pacific and Asian groups. Findings were examined to identify any items that did not have moderate to high rates of endorsement and/or have anomalous distributions in terms of kurtosis and skewness. In addition to identifying items that did not perform well across the total sample, attention was given to locating any items that lacked these attributes when administered to particular ethnic groups.

The suitability of items for use with the different ethnic groupings was further examined by Chi square analysis. For each ethnicity group, clients' DSM-IV scores were categorised as to whether they met the criteria for problem gambling or not, and this was then tested for any association with individual item scores utilising Chi-squares. A significant chi-square means that there is an association between the item and the client meeting the criteria for problem gambling.

Item-scale correlations were also conducted, again for the whole sample and the four ethnic groups. Scale-level analysis were confined to determining the mean, standard deviation, kurtosis and skewness for the two total scale scores and internal consistency (Cronbach's alpha) for these measures. As with the item-level analyses the whole sample and ethnic sub-samples were considered separately.

Finally, construct and concurrent validity of the problem gambling measures, overall and for each ethnic group, was partially addressed by examining correlations between performance on the two measures and any other relevant file data, for example Dollars Lost and Control over Gambling. Item- and scale-level analyses, paralleling the foregoing for ethnic groups, were also conducted with respect to gender and age.

4.4.1 *Gambling Helpline database*

There were 13,149 new gambling clients who accessed the Helpline in the five year period from 1 January 2000 to 31 December 2004.

Population demographics

Tables 54a and 54b present the demographics of the Helpline gambler callers. There were approximately equal numbers of males and females. A majority of callers (71.9%) were aged between 20 and 44 years and were generally either European (55.7%) or Maori (37.8%). Pacific, Asian and 'other' made up the remaining 16.5%. Similar numbers of callers were received by the Helpline each year (approximately 20% of the total per year). The primary mode of gambling for the majority of callers (89.8%) was electronic gaming machines, either within or outside a casino. The single largest location of callers was Auckland at 33.4%. The majority of callers were not part of the Integrated Continuing Care process (78.8%).

Table 54a - Helpline database population demographics

<i>Sex</i>	<i>Number of Clients (%)</i>	
Male	6,429	(50.1)
Female	6,409	(49.9)
Not Reported	311	-
<i>Age group (years)</i>		
<20	233	(2.4)
20-24	1,185	(12.4)
25-29	1,464	(15.3)
30-34	1,583	(16.6)
35-39	1,373	(14.4)
40-44	1,262	(13.2)
45-49	895	(9.4)
50-54	724	(7.6)
55-59	420	(4.4)
60-64	203	(2.1)
65+	199	(2.1)
Not Reported or Incorrect Dates	3,608	-
<i>Ethnicity</i>		
Māori	2,825	(37.8)
Pacific Island	785	(7.7)
Asian	364	(3.6)
Other*	524	(5.2)
European	5,650	(55.7)
Not Reported		
<i>Year of initial problem gambling screen</i>		
2000	2,207	(16.8)
2001	2,317	(17.6)
2002	2,915	(22.2)
2003	2,934	(22.3)
2004	2,776	(21.1)

*Other ethnicity includes 501 clients specified as "other" or "multiple ethnicities"

Table 54b - Helpline database population demographics - continued

<i>Primary mode of gambling</i>	<i>Number of Clients (%)</i>	
Cards	29	(0.3)
Casino gaming machines	944	(9.2)
Casino tables	317	(3.1)
Pub/Club gaming machines	8,275	(80.6)
Housie	15	(0.2)
Internet	14	(0.1)
Keno	8	(0.1)
Lotto	31	(0.3)
Other and multiple	46	(0.5)
Sports betting	67	(0.7)
Track betting	520	(5.1)
Not reported	2,883	-
<i>Region</i>		
Northland	282	(2.4)
Auckland	3,990	(33.4)
Waikato	752	(6.3)
Coromandel/Thames Valley	66	(0.6)
Bay of Plenty	787	(6.6)
Gisborne	101	(0.8)
Hawkes Bay	427	(3.6)
Central North Island	87	(0.7)
Taranaki	228	(1.9)
Wanganui	158	(1.3)
Manawatu	447	(3.7)
Wairarapa	88	(0.7)
Wellington	1,453	(12.2)
Marlborough	90	(0.8)
Nelson	240	(2.0)
West Coast	54	(0.5)
Canterbury	1,695	(14.2)
South Canterbury	173	(1.4)
Otago	521	(4.4)
Southland	297	(2.5)
Unknown/Not Stated	1,213	-
<i>Integrated care</i>		
Yes	2,783	(21.2)
No	10,366	(78.8)

DSM-IV

The DSM-IV gambling criteria are the problem gambling tool of choice for the Helpline. However, the client is not assessed based on a clinical assessment by the counsellor. Instead, the criteria have been worded as questions. Dependent on the counsellor and the clients' needs (e.g. whether the client is responsive to being asked specific questions) the questions are either asked of the client or the counsellor will check off (score positively) responses that the client indicates are applicable, with the information gained through the telephone counselling process rather than the actual questions being asked.

The ten questions are:

- 1) Do you go back later to win your money back?
- 2) Do you feel happier or less depressed while you are gambling?
- 3) Have you tried to reduce or stop your gambling in the past without success?
- 4) Do you think more about gambling now than in the past?
- 5) When you don't gamble, or try to cut down, do you feel upset or irritable?
- 6) Do you need more money to gamble with now to enjoy your gambling?
- 7) Do you sometimes not tell the whole truth about how much you do gamble?
- 8) Have you sometimes risked losing or lost friends or a job due to gambling?
- 9) Have friends or family ever bailed you out of problems arising from gambling?
- 10) Have you ever done anything that is not lawful to get money to gamble with?

Table 55 presents the distribution of DSM-IV scores for the Helpline gambler callers. Of the 13,149 clients with a DSM-IV score, 62.5% of these were reported to have a score of zero. There are multiple reasons for this percentage being so high:

- The score is an accurate score for clients (given that clients may not always respond truthfully)
- The client was an Integrated Continuing Care client who had not originated through the Helpline and did not go through the initial Helpline counselling process
- The client was not asked the DSM-IV questions. This could be due to:
 - There was no counselling content in the call (e.g. the client merely wanted information or to be referred to a self-help group)
 - The client was in crisis and asking the DSM-IV questions was not appropriate
 - The caller was anonymous and only certain topics could be discussed

It should also be noted that the Helpline database does not indicate whether all items in the scale were asked of all clients for which there is a score; the database only identifies if an item was record positively ('yes'). In practice, some items may not have been utilised. Excluding the clients who had a DSM-IV score of zero, 86% of the clients were positive for five or more items, which is the cut-off score for being classified as a pathological gambler. The following analyses have only been undertaken on clients who score one or more in the DSM-IV scale.

Table 55 - Helpline DSM-IV score at initial assessment

DSM-IV	<i>Number of Clients (%)</i>
0	8,217 -
1	118 (2.4)
2	97 (2.0)
3	170 (3.4)
4	328 (6.7)
5	573 (11.6)
6	976 (19.8)
7	1,201 (24.4)
8	756 (15.3)
9	520 (10.5)
10	193 (3.9)
<i>Total (score 1 or more)</i>	4,932

Item- and scale-level analyses

The Cronbach's alpha test was used to assess internal consistency. A Cronbach's alpha of 0.7 is generally viewed as an acceptable level of internal consistency. The overall scores detailed in Table 56, Table 57a and Table 57b are very close to 0.7. However, as the DSM-IV based questions have been developed as a screening tool to identify problem gamblers, and the population being examined here have already been identified (either self-identified or by other sources) as problem gamblers it should be noted that the Cronbach's alpha in the tables may be underestimated. This causes low variability in responses, as theoretically the scores are concentrated at the higher end of the scale and are not necessarily fully representative of the whole target population for which the DSM-IV gambling criteria/questions were developed.

With the Cronbach's alpha test, the reliability of any individual item is reduced if its value is above the overall value. In the following tables, the Cronbach's alpha for each of the items being deleted is compared to the overall Cronbach's alpha; there are only minor changes due to the deletion of any one item.

Gender and ethnicity

The following tables present the percentage of clients who answered 'Yes' to each item with the overall Cronbach's alpha and with each item excluded. Table 56 presents the results by gender, whereas Tables 57a and 57b present the results by ethnicity for males and females respectively. Item 10 consistently has a higher Cronbach's alpha than the overall value when analysed by gender and ethnicity. There are minor improvements in the scale when question 10 is deleted for males in all ethnic groups and for Maori and Asian females. There are also minor improvements with the deletion of Question 1 in non-European males and Asian females. Question 10 relates to criminality (Have you ever done anything that is not lawful to get money to gamble with?) whilst Question 1 relates to chasing losses (Do you go back later to win your money back?).

Table 56 - DSM-IV Helpline sample: Cronbach's alpha by gender

DSM-IV Items	Male (n=2,261)		Female (n=2,644)	
	%	Cronbach's alpha	%	Cronbach's alpha
1	92.5	0.67	91.5	0.67
2	81.1	0.64	86.1	0.65
3	85.8	0.65	85.1	0.67
4	87.6	0.64	90.8	0.66
5	63.4	0.63	69.2	0.64
6	82.3	0.63	85.5	0.64
7	74.0	0.64	78.4	0.65
8	36.4	0.63	32.7	0.65
9	24.5	0.66	25.4	0.68
10	11.6	0.68	10.3	0.69
Overall		0.67		0.68

Table 57a - DSM-IV Helpline sample: Cronbach's alpha for males by ethnicity

DSM IV Items	Asian (n=77)		Maori (n=377)		Pacific Island (n=149)		European (n=1,392)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	92.2	0.77	95.2	0.67	98.7	0.67	91.5	0.65
2	75.3	0.72	83.8	0.63	83.2	0.66	80.7	0.63
3	83.1	0.71	83.3	0.64	85.2	0.64	86.8	0.63
4	85.7	0.72	90.7	0.63	90.6	0.63	87.1	0.63
5	51.9	0.70	68.7	0.62	69.1	0.62	61.9	0.61
6	79.2	0.70	85.4	0.63	83.2	0.61	81.5	0.62
7	67.5	0.70	78.2	0.61	74.5	0.62	73.9	0.62
8	24.7	0.70	38.5	0.64	40.9	0.62	36.6	0.61
9	15.6	0.72	26.8	0.66	22.8	0.65	24.8	0.64
10	13.0	0.76	11.1	0.67	12.1	0.68	11.6	0.66
Overall		0.74		0.66		0.66		0.65

Table 57b - DSM-IV Helpline sample: Cronbach's alpha for females by ethnicity

DSM IV Items	Asian (n=48)		Maori (n=946)		Pacific Island (n=212)		European (n=1,145)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	87.5	0.77	91.9	0.67	94.8	0.67	91.8	0.65
2	87.5	0.70	85.9	0.66	84.0	0.64	87.0	0.64
3	85.4	0.73	84.4	0.68	84.4	0.67	86.8	0.64
4	85.4	0.72	91.8	0.67	89.2	0.65	90.7	0.63
5	58.3	0.71	72.8	0.65	65.1	0.64	68.3	0.62
6	83.3	0.72	86.4	0.66	86.8	0.65	85.9	0.62
7	70.8	0.72	80.3	0.66	81.6	0.65	77.2	0.63
8	27.1	0.72	35.6	0.67	36.8	0.65	29.0	0.62
9	16.7	0.74	28.8	0.69	29.7	0.66	22.4	0.65
10	8.3	0.77	12.4	0.70	13.7	0.68	7.8	0.66
Overall		0.75		0.69		0.68		0.66

Age

Tables 58a and 58b (overleaf) present the results by age group. As for results by ethnicity and gender, item 10 always has a Cronbach's alpha which either is equal to or higher than the overall value when analysed by age. Thus, there are either minor improvements or no reduction in internal consistency in the scale when question 10 (relating to criminality) is deleted from all age groups.

Table 58a - DSM-IV Helpline sample: Cronbach's alpha by age (under 20 to 39 years)

DSM IV Items	<20 years (n=91)		20-29 years (n=1,247)		30-39 years (n=1,298)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	94.5	0.69	93.1	0.67	92.8	0.66
2	79.1	0.66	84.5	0.65	834.0	0.64
3	81.3	0.65	84.4	0.66	86.8	0.65
4	84.6	0.67	88.3	0.66	89.9	0.63
5	56.0	0.65	67.7	0.65	67.5	0.62
6	79.1	0.66	84.8	0.65	85.0	0.62
7	79.1	0.67	77.3	0.65	79.1	0.63
8	22.0	0.66	34.8	0.65	38.6	0.62
9	30.8	0.69	28.1	0.68	24.5	0.65
10	17.6	0.73	11.9	0.68	11.4	0.67
Overall		0.70		0.68		0.66

Table 58b - DSM-IV Helpline sample: Cronbach's alpha by age (40 to over 60 years)

DSM IV Items	40-49 years (n=1,015)		50-59 years (n=505)		60+ years (n=172)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	92.3	0.67	89.9	0.59	87.8	0.58
2	85.1	0.66	85.0	0.58	86.0	0.57
3	85.9	0.66	88.1	0.59	82.0	0.58
4	90.0	0.64	90.0	0.60	94.2	0.59
5	67.2	0.63	67.7	0.57	65.7	0.53
6	84.8	0.63	85.3	0.57	84.9	0.57
7	75.7	0.64	74.3	0.57	73.8	0.58
8	34.7	0.64	31.5	0.57	25.0	0.55
9	25.0	0.67	18.0	0.59	18.0	0.59
10	11.7	0.68	7.7	0.63	6.4	0.60
Overall		0.68		0.61		0.60

SOGS-3M

The Helpline does not routinely screen clients using the SOGS-3M. However, SOGS-3M scores from an initial assessment at a face-to-face counselling service are sent to the Helpline for those clients on the Integrated Continuing Care programme. For those clients, the initial SOGS-3M total score (individual item details are not sent to the Helpline) was correlated with the total initial DSM-IV score recorded by the Helpline.

There were 836 clients with DSM-IV scores and SOGS-3M scores. The Spearman correlation = 0.22, p-value <0.0001, between DSM-IV and SOGS-3M scores. The correlation was low and indicated only a small tendency towards agreement between measures; however, this is probably explained, in part, by the fact that the two screening assessments were conducted at different points in time. For example, there could have been a substantial delay between the Helpline conducting the DSM-IV gambling screen and the client accessing counselling services and having their first assessment where the SOGS-3M screen was conducted. This time lag could have led to a difference in the client's gambling behaviour and thus a lower correlation between the total scores for the two screens.

4.4.2 Ministry of Health national counselling statistics (CLIC) database

There were 8,714 clients classified as gamblers who were reported as having an initial problem gambling screen/assessment in the five years from 1 January 2000 to 31 December 2004. The screens/assessments conducted included at least one of the following:

- SOGS-3M
- DSM-IV gambling criteria or comorbidity
- Dollars Lost assessment
- Control over Gambling assessment
- EIGHT screen

Population demographics

The population demographics of the CLIC database (face-to-face) clients (meeting the criteria above) are detailed in Table 59. There were slightly more males (56.5%) than females (43.5%) accessing counselling services over the time period. A majority of callers (71.9%) were aged between 20 and 44 years and were generally either European (59.5%) or Maori (26.8%). Pacific, Asian, 'other' and 'not reported' made up the remaining ethnicities. There was an increase each year in the number of gamblers attending counselling services, with 14.4% of the total attending in 2000, rising to 25.4% of the total in 2004.

Table 59 - CLIC database population demographics

Sex	Number of Clients (%)	
Male	4,921	(56.5)
Female	3,793	(43.5)
Age Group (years)		
<20	221	(2.7)
20-24	840	(10.4)
25-29	1,179	(14.6)
30-34	1,332	(16.5)
35-39	1,279	(15.9)
40-44	1,170	(14.5)
45-49	785	(9.7)
50-54	567	(7.0)
55-59	364	(4.5)
60-64	160	(2.0)
65+	163	(2.0)
Not Reported or Incorrect Dates	654	-
Ethnicity*		
Maori	2,218	(26.8)
Pacific Island	511	(6.2)
Asian	289	(3.5)
Other	454	(5.5)
European	4,923	(59.5)
Not Reported	446	-
Year of Initial Problem Gambling Screen		
2000	1,254	(14.4)
2001	1,455	(16.7)
2002	1,672	(19.2)
2003	2,118	(24.3)
2004	2,215	(25.4)

* Multiple ethnicities allocated to all that apply (123 clients reported multiple)

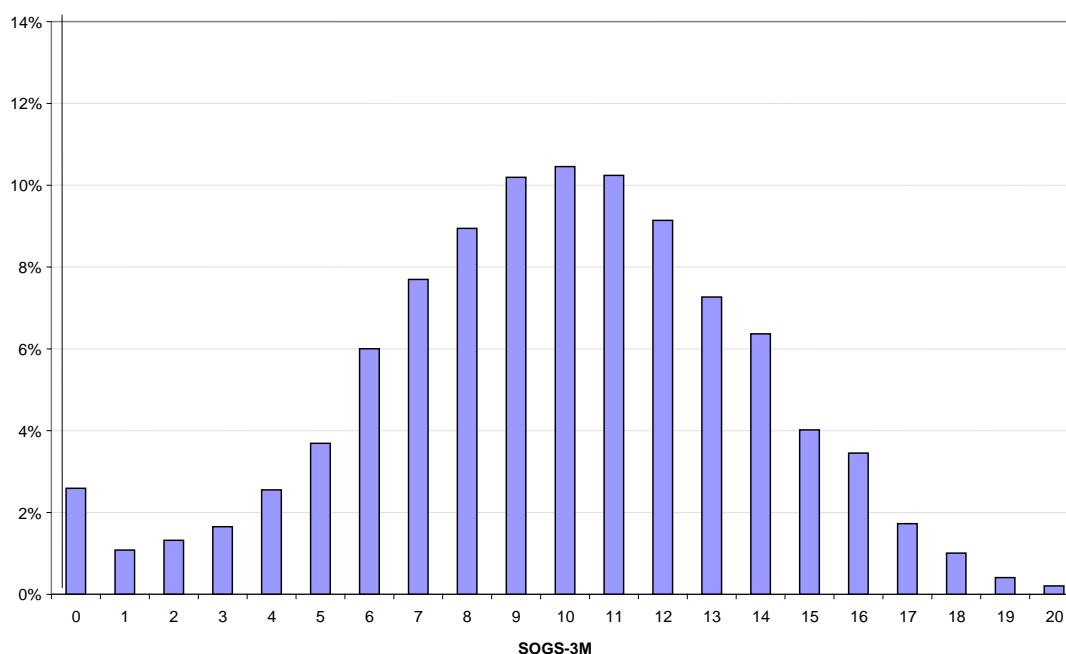
Screening instrument scores

SOGS-3M

Figure 1 presents the distribution of SOGS-3M scores for the CLIC database gambler clients. The majority of the CLIC database clients meeting the criteria previously detailed had scores for the SOGS-3M (n=8,341). The scores covered the full range from 0 to 20. Ninety-five percent of the clients scored three or more and were, therefore, classified as problem or pathological gamblers. This is to be expected, given that the sample is of a population of gamblers seeking help for their gambling. A small proportion of clients (2.6%) were reported as having a SOGS-3M score of zero. This could be accounted for by:

- The score is an accurate score for clients (given that clients may not always respond truthfully)
- The client had not gambled in the previous three months but still felt they had a problem (and thus were attending treatment)

Figure 1 - CLIC database: Distribution of SOGS-3M scores

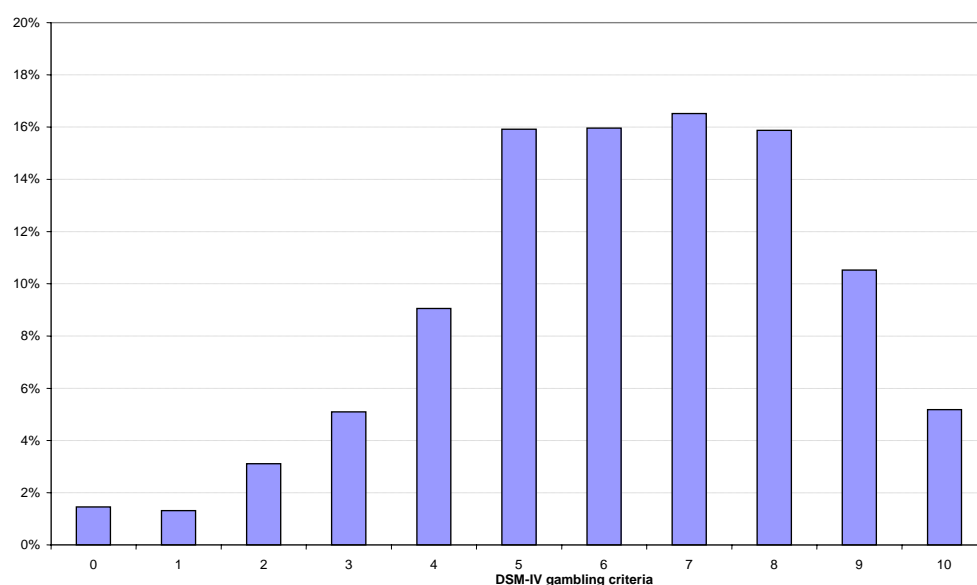


DSM-IV gambling or comorbidity criteria

Figure 2 presents the distribution of DSM-IV scores for the CLIC database gambler clients. Approximately half of the CLIC database clients meeting the criteria previously detailed had scores for the DSM-IV gambling or comorbidity assessment (n=4,341). The criteria endorsed covered the full range from 0 to 10. Eighty percent of the clients were scored for five or more of the criteria and were, therefore, classified as pathological gamblers. This is to be expected, given that the sample is of a population of gamblers seeking help for their gambling. A small proportion of clients (1.5%) were reported as having a DSM-IV score of zero. This could be accounted for if the client was asked to self-complete the assessment, rather than the counsellor making a clinical diagnosis, and also could be because:

- The score is an accurate score for clients (given that clients may not always respond truthfully)
- The client had not gambled in the previous three months but still felt they had a problem (and thus were attending treatment)

Figure 2 - CLIC database: Distribution of DSM-IV gambling criteria



Dollars Lost assessment

The median amount of money lost in the four weeks prior to the assessment was \$740. The mean was \$1,895 (SD=8125) and the range was no money lost to \$370,000 lost.

Control over Gambling assessment

The Control over Gambling assessment consists of four items:

- 1) During the past 3 months, I feel I have been completely in control of my gambling
- 2) During the past 3 months, I feel I have been mostly in control of my gambling
- 3) During the past 3 months, I feel I have been mostly out of control with my gambling
- 4) During the past 3 months, I feel I have been completely out of control with my gambling

A majority of the CLIC database clients meeting the criteria previously detailed had scores for the Control over Gambling assessment (n=7,992). Three-quarters of those felt that they were either mostly out of control (39.8%) or completely out of control (37.7%) with their gambling. One quarter felt that they were completely in control (5.8%) or mostly in control (16.7%) of their gambling. Again, these findings are expected given that the sample is of a population of gamblers seeking help for their gambling.

EIGHT screen

Thirteen people had also been assessed using the EIGHT screen. Twelve of the 13 people scored six or more on the screen and, therefore, were identified as problem gamblers. One person reported a zero score.

Use of combinations of screening tools

Table 60 presents the combination of gambling screening tools utilised at any initial client screening. All of the CLIC database clients meeting the criteria previously detailed were screened/assessed using a combination of tools. The combination used varied with client; however, the most common combinations were either SOGS-3M, DSM-IV gambling criteria, Control over Gambling assessment and Dollars Lost assessment (45.4%) or SOGS-3M, Control over Gambling assessment and Dollars Lost assessment (40.9%).

Table 60 - CLIC database: combination of tools used

<i>SOGS</i>	<i>DSM</i>	<i>Control over Gambling</i>	<i>Total Dollars Lost</i>	<i>Eight Screen</i>	<i>Number of Clients (%)</i>
Y	Y	Y	Y	-	3,952 (45.4)
Y	-	Y	Y	-	3,566 (40.9)
Y	-	-	-	-	258 (3.0)
Y	-	-	Y	-	180 (2.1)
Y	-	Y	-	-	148 (1.7)
Y	Y	Y	-	-	143 (1.6)
-	-	Y	-	-	94 (1.1)
-	Y	-	-	-	69 (0.8)
-	Y	Y	Y	-	68 (0.8)
-	-	Y	-	-	67 (0.8)
Y	Y	-	Y	-	62 (0.7)
-	-	-	Y	-	47 (0.5)
Y	Y	-	-	-	25 (0.3)
-	Y	-	Y	-	19 (0.2)
Y	-	-	-	Y	6 (0.1)
-	-	-	-	Y	3 (0.0)
-	Y	Y	-	-	3 (0.0)
-	-	-	Y	Y	2 (0.0)
-	-	Y	-	-	1 (0.0)
Y	-	Y	Y	Y	1 (0.0)

The total number of screening/assessment instruments used with any one client at the initial assessment varied from one to 11, with the median being four screens/assessments and the mean being 5.1. The full range of possible screens used has been detailed previously in Table 3.

Correlations

Table 61 presents the Spearman correlations between the different screening/assessment instruments used and shows moderate or low correlations. However, all correlations were in the same positive direction. These results suggest that each screening/assessment tool is not measuring exactly the same construct/dimension although there is some overlap between them. There may be confounding issues arising through differences in the way the screening results are reported (both inter- and intra-organisationally) and through time if the assessments were not conducted at the same time for each client.

Table 61 - CLIC database: Spearman correlations between instruments

	<i>Number of clients</i>	<i>Spearman correlation</i>	<i>p-value</i>
SOGS-3M versus DSM-IV criteria	4,182	0.45	<0.0001
SOGS-3M versus Dollars Lost assessment	7,810	0.32	<0.0001
SOGS-3M versus Control over Gambling	7,761	0.43	<0.0001
DSM-IV criteria versus Dollars Lost assessment	4,166	0.23	<0.0001
DSM-IV criteria versus Control over Gambling	4,101	0.34	<0.0001
Dollars Lost assessment versus Control over Gambling	7,682	0.40	<0.0001

4.4.3 Archival data from clinics

Requested data from clinics

From the available clients detailed in Table 59, a random selection of 120 clients from each of the four major ethnic groups (European, Maori, Pacific and Asian) was selected for which detailed records were requested from the participating service providers. The breakdown of client data requested from each service provider by clinic is detailed in Table 62 and by ethnic group is detailed in Table 63.

Table 62 - Clinic client data by clinic

<i>Service provider</i>	<i>Location</i>	<i>Number</i>
National Service Provider 2	Auckland	79
	Christchurch	36
	Dunedin	6
	Hamilton	21
	Wellington	38
National Service Provider 1	Auckland	117
	Christchurch	77
	Dunedin	12
	Hamilton	7
	Nelson	13
	Palmerston North	8
	Taupo	3
	Tauranga	20
	Wanganui	3
	Wellington	21
	Whangarei	8
Maori Service	Hastings	11
<i>Total</i>		<i>480</i>

Table 63 - Clinic client data by ethnicity

<i>Ethnic Group</i>	<i>Ethnicity</i>	<i>Number</i>
European/Pakeha		120
Maori		120
Pacific	Cook Island	9
	Fijian	3
	Niuean	9
	Pacific*	14
	Rarotongan	18
	Samoan	57
	Tongan	10
Asian	Asian*	21
	Chinese	81
	Korean	18
<i>Total</i>		<i>480</i>

* Ethnicity not identified

Sample received from clinics

Slightly less than 120 detailed records were received for each ethnic group, mainly due to the clinics being unable to find all records. Unfortunately, however, of the records received a number were not usable for the purposes of this analysis. There were two main reasons for this:

- Incomplete records (13 records)
 - The clinic in Nelson did not keep item scores for clients, therefore, only summary scores were available (12 European records)
 - Incomplete record (one Maori record)
- Paper records did not match the CLIC database records: We have set criteria for a difference in the scale score of ± 1 and/or the date of assessment of ± 31 days between paper-based and CLIC records. The key time for the utilisation of the screening tools is at initial assessment. Where there were inconsistencies between the date and/or the scores at the initial assessment, it was assumed that the initial screening was not identifiable and, therefore, the client was eliminated from this analysis. Predominantly, in these cases, assessment date was the problem.

The intention had been to have 100 usable records per ethnic group; the actual numbers available are detailed in Table 64. The target of 100 usable records was not achieved for Maori and European records for the reasons detailed above.

Table 64 - Client records received from clinics

Ethnicity	Requested	Received	Usable	
			Number	(%)
Maori	120	109	90	75%
Pacific Island	120	114	103	86%
Asian	120	117	101	84%
European	120	112	79	66%

Demographics

Table 65 presents the demographics of the records that were usable for this analysis. Over half of the records obtained from the clinics were from male clients (59%), with females representing 41% of the records. A majority of the clients (87.1%) were aged between 20 and 49 years.

Table 65 - Demographics of clients from clinics

	<i>Number of Clients (%)</i>	
<i>Ethnicity</i>		
Maori	90	(24.1)
Pacific Island	103	(27.6)
Asian	101	(27.1)
European	79	(21.2)
<i>Gender</i>		
Male	220	(59.0)
Female	153	(41.0)
<i>Age Group</i>		
<20	15	(4.2)
20-29	109	(30.5)
20-29	113	(31.7)
40-49	89	(24.9)
50-59	27	(7.6)
60+	4	(1.1)

SOGS-3M

Responses to the individual SOGS-3M questions from the clinic clients are detailed in Tables 66a and 66b. Some questions were not answered by the clients. Generally, the items which had the largest proportion of unanswered questions were those relating to borrowing money (question 13a to 13i) where between 19% and 32% of the questions were not answered.

The SOGS-3M problem gambling screen consists of 20 scored items. The questions are:

- 1) In the last 3 months, when you have gambled, how often have you gone back another day to win back the money?

Responses: never / sometimes / most of the time / every time. 'Most of the time' or 'every time' score as 1.

- 2) In the last 3 months, have you claimed to be winning money gambling but weren't really? In fact you lost?

Responses: never / half the time / most of the time. 'Half the time' or 'most of the time' score as 1.

The remaining questions have a dichotomous response (yes/no) with 'yes' scoring as 1.

- 3) In the last 3 months, do you feel you have had a problem with betting money or gambling?
- 4) In the last 3 months, did you ever gamble more than you intended to?
- 5) In the last 3 months, have people ever criticised your betting or told you that you have a gambling problem regardless of whether or not you thought it was true?
- 6) In the last 3 months, have you ever felt guilty about the way you gamble or what happens when you gamble?
- 7) In the last 3 months, have you ever felt like you would like to stop gambling but didn't think you could?
- 8) In the last 3 months, have you ever hidden betting slips, lottery tickets, gambling money, IOU's or other signs of betting or gambling from your spouse, children, or other important people in your life?
- 9) In the last 3 months, have you ever argued with people you live with over how you handle money?

Question 9 is not scored.

- 10) (If yes to question 9) In the last 3 months, have money arguments ever centred on your gambling?
- 11) In the last 3 months, have you ever borrowed money from someone and not paid them back as a result of your gambling?
- 12) In the last 3 months, have you ever lost time from work (or school) due to betting money or gambling?
- 13) In the last 3 months, if you borrowed money to gamble or to pay gambling debts, who or where did you borrow from?

Question 13 is not scored but the following sub-items are scored:

- a) From household money
- b) From your spouse
- c) From other relatives or in-laws
- d) From banks, loan companies or credit unions

- e) From credit cards
- f) From loan sharks
- g) You cashed in stocks, bonds, or other securities
- h) You sold or pawned personal or family property
- i) You borrowed on your cheque account (bounced a cheque)

Table 66a - Clinic client responses to SOGS-3M: Questions 1 and 2

Item	Response	Yes	
		Number	(%)
1	Never	35	(9.8)
	Sometimes	112	(31.5)
	Most of the time	119	(33.4)
	Every time	89	(25.0)
	Not Answered	1	(0.3)
2	Never	155	(43.5)
	Half the time	100	(28.1)
	Most of the time	97	(27.25)
	Not Answered	4	(1.1)

Table 66b - Clinic client responses to SOGS-3M: Questions 3 to 13i

	Yes		No		Not Answered	
	Number	(%)	Number	(%)	Number	(%)
3	317	(89.0)	39	(11.0)	-	-
4	324	(91.0)	32	(9.0)	-	-
5	254	(71.3)	101	(28.4)	1	(0.3)
6	313	(87.9)	43	(12.1)	-	-
7	302	(84.8)	54	(15.2)	-	-
8	227	(63.8)	127	(35.7)	2	(0.6)
9	223	(62.6)	126	(35.4)	7	(2.0)
10 *	182	(51.1)	161	(45.2)	13	(3.7)
11	157	(44.1)	194	(54.5)	5	(1.4)
12	140	(39.3)	209	(58.7)	7	(2.0)
13	287	(80.6)	43	(12.1)	25	(7.0)
a	201	(56.5)	88	(24.7)	67	(18.8)
b	123	(34.6)	135	(37.9)	98	(27.5)
c	125	(35.1)	151	(42.4)	80	(22.5)
d	93	(26.1)	164	(46.1)	99	(27.8)
e	102	(28.7)	152	(42.7)	102	(28.7)
f	37	(10.4)	204	(57.3)	115	(32.3)
g	25	(7.0)	206	(57.9)	125	(35.1)
h	95	(26.7)	163	(45.8)	98	(27.5)
i	39	(11.0)	204	(57.3)	113	(31.7)

* Note that 10 clients responded with 'no' to item 9 but 'yes' to item 10. Item 10 should only have been asked if item 9 had a 'yes' response. Therefore, those item 10 responses were re-coded to 'no'. One client did not answer item 9 but answered 'yes' to item 10. The item 9 response was re-coded to 'yes'.

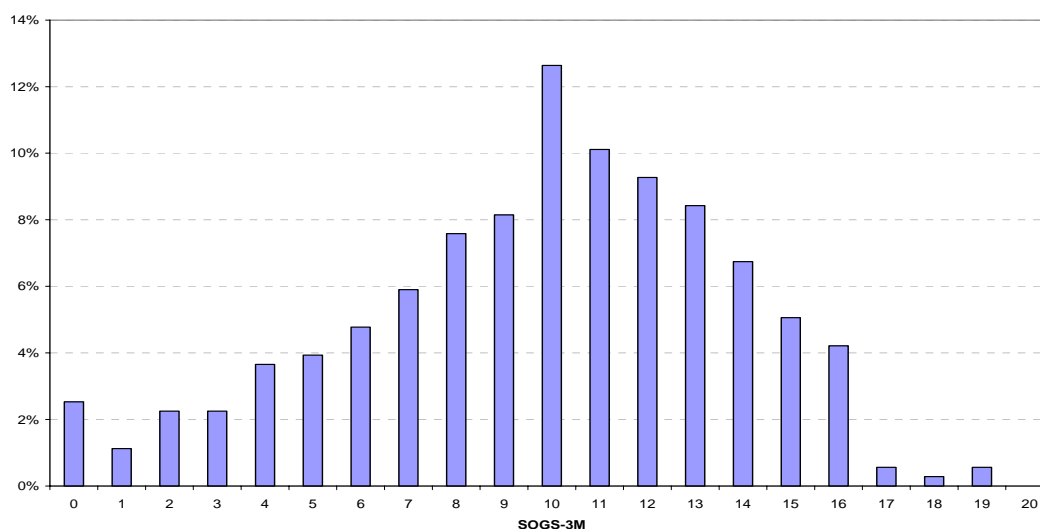
Figure 3 presents the distribution of SOGS-3M scores for the clinic clients. The majority of the clinic clients had scores for the SOGS-3M (n=356). The scores covered the range from zero to 19. None of the clinic clients scored 20 on the SOGS-3M. Ninety-four percent of the clients scored three or more and were, therefore, classified as problem or pathological gamblers. This is to be expected, given that the sample is of a population of gamblers seeking

help for their gambling. A small proportion of clients (2.5%) were reported as having a SOGS-3M score of zero. This could be accounted for by:

- The score is an accurate score for clients (given that clients may not always respond truthfully)
- The client had not gambled in the previous three months but still felt they had a problem (and thus were attending treatment)

The distribution of the SOGS-3M scores for the clinic sample (Figure 3) was similar to that for the CLIC database (See Figure 1).

Figure 3 - Clinic sample: Distribution of SOGS-3M scores



Item- and scale-level analyses

The Cronbach's alpha test was used to test internal consistency. As there are many missing values in these data, the two overall analyses were checked for the sensitivity of the assumption that missing values were 'No' by default. Separate analyses were conducted with missing responses either eliminated or assumed to be a 'No' response. There was very little difference between the two types of analyses; therefore, the latter (assuming 'No' for missing responses) is the form of analysis presented in this section.

Ethnicity and gender

Tables 67a and 67b present the percentage of clients answering 'Yes' to each item and the Cronbach's alphas by ethnicity and gender. Items 13c to 13i had a slightly higher Cronbach's alpha than the overall value when analysed by ethnicity and gender, though not all items were higher for all ethnicities/genders. There are minor improvements in the scale when question 13g (relating to cashing in stocks, bonds or other securities) was deleted for all ethnicities and both genders. There are also minor improvements with the deletion of question 13f (relating to borrowing from loan sharks) for all ethnicities apart from Maori or from females. Other minor improvements in the scale occurred with the deletion of question 13c and 13d (relating to borrowing from other relatives or in-laws or to borrowing from banks, loan companies or credit unions) for Europeans only, the deletion of question 13e (related to borrowing from credit cards) for Maori and Europeans and females, and the deletion of question 13i (related to borrowing from the cheque account) for Asians and males.

It should be noted that Chinese and Korean versions of the SOGS-3M were used with some of the Asian clinic samples. The translations may not have provided exactly the same questions as the English version, for example the Chinese translation for loans sharks gave the essence

of the words but was not identical since there is no literal translation of the words 'loan sharks' in Chinese.

Table 67a - Clinic sample: Cronbach's alpha by ethnicity

SOGS-3M Items	<i>Asian (n=98)</i>		<i>Pacific Island (n=100)</i>		<i>Maori (n=88)</i>		<i>European (n=70)</i>	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	46.9	0.846	60.0	0.769	073.9	0.760	52.9	0.670
2	42.9	0.848	70.0	0.766	65.9	0.761	38.6	0.665
3	76.5	0.843	90.0	0.770	95.5	0.769	97.1	0.669
4	78.6	0.847	96.0	0.762	95.5	0.760	95.7	0.652
5	70.4	0.852	75.0	0.785	73.9	0.773	64.3	0.662
6	79.6	0.850	84.0	0.768	97.7	0.771	92.9	0.664
7	71.4	0.846	87.0	0.763	90.9	0.761	92.9	0.668
8	51.0	0.843	76.0	0.753	65.9	0.753	61.4	0.645
10	35.7	0.845	61.0	0.766	60.2	0.767	47.1	0.660
11	35.7	0.846	49.0	0.769	54.5	0.762	35.7	0.654
12	42.9	0.850	46.0	0.779	40.9	0.774	22.9	0.676
13a	33.7	0.846	62.0	0.775	79.5	0.766	51.4	0.663
13b	13.3	0.853	46.0	0.770	51.1	0.764	27.1	0.663
13c	26.5	0.851	38.0	0.779	46.6	0.759	28.6	0.684
13d	21.4	0.851	23.0	0.770	35.2	0.773	25.7	0.685
13e	26.5	0.850	25.0	0.777	21.6	0.786	45.7	0.687
13f	21.4	0.856	10.0	0.784	12.5	0.772	7.1	0.702
13g	5.1	0.859	5.0	0.791	9.1	0.784	10.0	0.698
13h	20.4	0.848	24.0	0.771	39.8	0.768	22.9	0.681
13i	4.1	0.863	17.0	0.780	10.2	0.773	12.9	0.679
Total		0.856		0.781		0.777		0.682

Assuming 'No' for missing values

Table 67b - Clinic sample: Cronbach's alpha by gender

SOGS-3M Items	<i>Female</i> (n=145)		<i>Male</i> (n=211)	
	%	Cronbach's alpha	%	Cronbach's alpha
1	58.6	0.770	58.3	0.81
2	61.4	0.768	51.2	0.812
3	91.7	0.773	87.2	0.808
4	94.5	0.765	88.6	0.809
5	70.3	0.784	72.0	0.817
6	93.1	0.768	84.4	0.816
7	89.7	0.767	81.5	0.810
8	69.7	0.760	59.7	0.804
10	49.0	0.771	52.6	0.807
11	43.4	0.770	44.6	0.809
12	33.8	0.782	43.1	0.818
13a	71.7	0.768	46.0	0.813
13b	44.1	0.771	28.0	0.815
13c	37.9	0.772	33.2	0.815
13d	32.4	0.769	21.8	0.822
13e	33.8	0.792	25.1	0.820
13f	13.1	0.782	8.5	0.827
13g	6.9	0.791	7.1	0.828
13h	26.9	0.771	26.5	0.816
13i	13.8	0.780	9.0	0.826
Overall		0.783		0.823

Assuming 'No' for missing values

Age

Tables 68a and 68b present the percentage of clients answering 'Yes' to each item and the Cronbach's alphas by age group. Again, questions 13f and 13g usually had a slightly higher Cronbach's alpha than the overall value when analysed by age; however, there were other questions which also showed higher Cronbach's alpha values compared with the overall value, for different age groups. There are minor improvements in the scale when questions 13f and 13g are deleted for all age groups, apart from the under 20 and 20-29 age groups for item 13f. Additionally, there are minor improvements in the scale when questions 6, 13a, 13e and 13i are deleted for the under 20 age group, however, the sample size is very small (n=14) and so these findings should be treated with caution. There are also minor improvements in the scale when questions 12 and 13i are deleted for the 20-29 age group, when questions 5, 13e and 13i are deleted for the 30-39 age group, and when question 7 is deleted for the over 50 age group.

Table 68a - Clinic sample: Cronbach's alpha by age (under 20 to 39 years)

SOGS 3M-Items	<20 years (n=14)		20-29 years (n=107)		30-39 years (n=103)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	57.1	0.855	68.2	0.773	61.2	0.815
2	50.0	0.838	54.2	0.777	54.4	0.817
3	64.3	0.836	90.7	0.766	85.4	0.819
4	71.4	0.840	89.7	0.764	92.2	0.815
5	71.4	0.840	74.8	0.780	67.0	0.830
6	71.4	0.866	88.8	0.767	89.3	0.824
7	57.1	0.846	86.9	0.768	84.5	0.814
8	28.6	0.852	67.3	0.763	68.9	0.810
10	28.6	0.852	49.5	0.770	55.3	0.813
11	42.9	0.857	49.5	0.776	41.7	0.812
12	14.3	0.859	48.6	0.792	43.7	0.816
13a	21.4	0.866	50.5	0.777	56.3	0.817
13b	14.3	0.860	35.5	0.776	35.0	0.819
13c	21.4	0.857	43.9	0.776	28.2	0.820
13d	21.4	0.860	26.2	0.783	24.2	0.821
13e	14.3	0.863	19.6	0.783	31.1	0.834
13f	0.0	-	14.0	0.781	8.7	0.831
13g	7.1	0.876	8.4	0.796	8.7	0.829
13h	35.7	0.852	32.7	0.777	27.2	0.818
13i	14.3	0.863	7.5	0.798	10.7	0.829
Total		0.862		0.786		0.828

Assuming 'No' for missing values

Table 68b - Cronbach's alpha by age (40 to over 50 years)

SOGS-3M Items	40-49 years (n=86)		50+ years (n=30)	
	%	Cronbach's alpha	%	Cronbach's alpha
1	54.7	0.816	33.3	0.714
2	61.6	0.815	40.0	0.695
3	94.2	0.814	100.0	-
4	91.9	0.815	96.7	0.738
5	73.3	0.825	70.0	0.735
6	90.7	0.817	83.3	0.718
7	87.2	0.811	86.7	0.750
8	66.3	0.808	43.3	0.703
10	50.0	0.813	40.0	0.727
11	45.3	0.812	33.3	0.731
12	32.6	0.824	23.3	0.729
13a	64.0	0.810	66.7	0.712
13b	34.9	0.817	30.0	0.703
13c	39.5	0.815	16.7	0.730
13d	29.1	0.822	26.7	0.709
13e	36.0	0.823	40.0	0.717
13f	11.6	0.831	10.0	0.747
13g	3.5	0.828	6.7	0.756
13h	25.6	0.818	10.0	0.722
13i	18.6	0.818	6.7	0.733
Total		0.825		0.736

Assuming 'No' for missing values

DSM-IV

The DSM-IV gambling criteria were used in only 64% of the clinic sample (239 out of 373).

The ten criteria are:

- 1) Is preoccupied with gambling
- 2) Needs to gamble with increased amounts of money in order to achieve the desired excitement
- 3) Has repeated unsuccessful efforts to control, cut back or stop gambling
- 4) Is restless or irritable when attempting to cut down or stop gambling
- 5) Gambling is a way of escaping from problems or of relieving a dysphoric mood
- 6) After losing money gambling, often returns another day to get even (i.e. chases losses)
- 7) Lies to family members, therapists or others to conceal the extent of involvement with gambling
- 8) Has committed illegal acts such as forgery, fraud, theft or embezzlement to finance gambling
- 9) Has jeopardised or lost a significant relationship, job or educational or career opportunity because of gambling
- 10) Relies on others to provide money to relieve a desperate financial situation caused by gambling

Clinic clients should have been assessed for the DSM-IV gambling criteria by their clinician. However, as indicated from the interview results (see section 4.2.9) there was some indication that the instrument has been used as a questionnaire rather than as a diagnostic tool. Sometimes the concordance, or not, of a criterion for the client's situation was recorded as a 'Yes' or 'No' response and sometimes the criterion was left with no response ('Not answered'). It is not known whether 'not answered' responses meant that the client did not exhibit that criterion or whether it was considered to be irrelevant, by the clinician. It is important to note that these DSM-IV items are worded differently and in a different order than those utilised by the telephone helpline. At this stage, readers should also be reminded that the use of DSM-IV gambling criteria (including within a questionnaire format) is different from the DSM-IV based questions utilised by the helpline. However, both measures are called "DSM-IV" when reporting data from the databases.

Responses to the individual DSM-IV gambling criteria from the clinic clients are detailed in Table 69. Generally, the items which had the largest proportion (25% or greater) of 'not answered' responses were criterion 4 (relating to being restless or irritable), criterion 8 (relating to illegal acts) and criterion 10 (relating to relying on others to provide money).

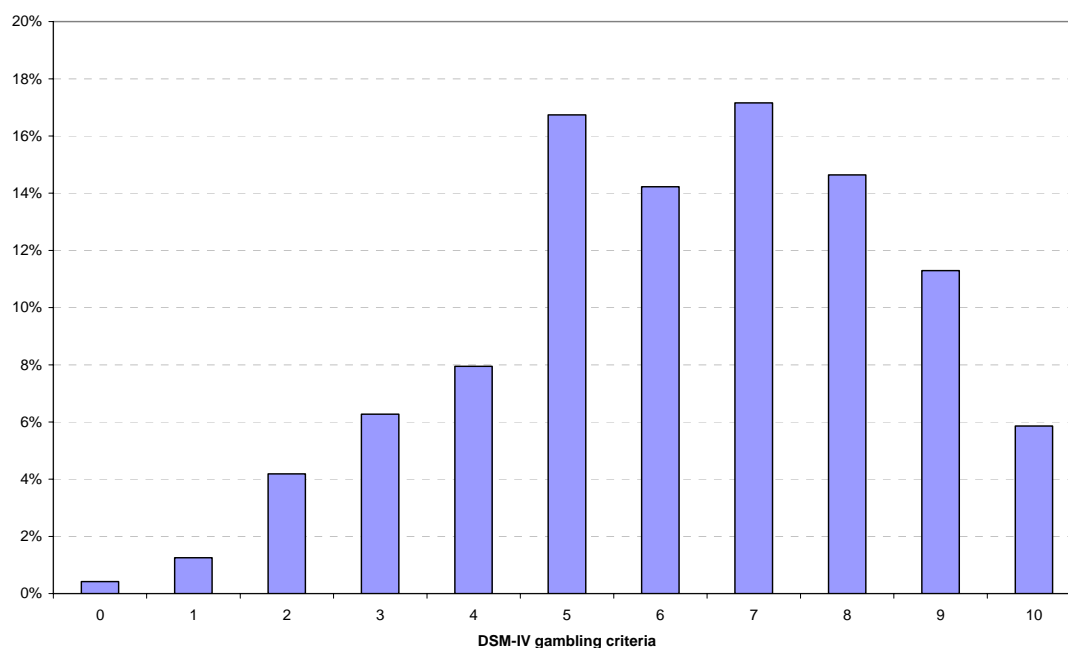
Table 69 - Clinic clients' concordance with DSM-IV gambling criteria

Item	Yes)		No		Not Answered	
	Number	(%)	Number	(%)	Number	(%)
1	176	(73.6)	36	(15.1)	27	(11.3)
2	170	(71.1)	32	(13.4)	37	(15.5)
3	192	(80.3)	25	(10.5)	22	(9.2)
4	138	(57.7)	38	(15.9)	63	(26.4)
5	190	(79.5)	18	(7.5)	31	(13.0)
6	192	(80.3)	25	(10.5)	22	(9.2)
7	166	(69.5)	27	(11.3)	46	(19.2)
8	57	(23.8)	89	(37.2)	93	(38.9)
9	116	(48.5)	64	(26.8)	59	(24.7)
10	101	(42.3)	55	(23.0)	83	(34.7)

The majority of the clinic clients were positive for at least one of the DSM-IV gambling criteria (n=239). The number of criterion items endorsed covered the complete range from zero to 10. Eighty percent of the clients were scored for five or more of the criteria and were, therefore, classified as pathological gamblers. This is to be expected, given that the sample is of a population of gamblers seeking help for their gambling. Only one client was reported as not being endorsed for any of the criteria.

The distribution of the DSM-IV gambling criteria for the clinic sample (Figure 4) was similar to that for the CLIC database (See Figure 2).

Figure 4 - Clinic sample: distribution of DSM-IV gambling criteria



Item- and scale-level analyses

The Cronbach's alpha test was used to test internal consistency. As there are many missing values in these data, the two overall analyses were checked for the sensitivity of the assumption that missing values were 'No' by default. Separate analyses were conducted with missing responses either eliminated or assumed to be a 'No' response. The analyses were conducted with 'not recorded' responses either eliminated or assumed to be a 'No' response. There was very little difference between the two types of analyses, therefore, the latter (assuming 'No' for 'not recorded' responses) is the form of analysis presented in this section as this allowed for a larger sample.

Ethnicity and gender

Tables 70a and 70b present the percentage of clients answering 'Yes' to each item and the Cronbach's alphas by ethnicity and gender. There were no consistent findings across the ethnicities or the genders. There are minor improvements in the diagnostic tool when criterion 2 (relating to the need to gamble with increased amounts of money) and criterion 6 (chasing losses) were deleted for Asians, when criterion 10 (related to relying on others to provide money) was deleted for Pacific peoples and Maori, when criterion 3 (related to repeated unsuccessful attempts to control gambling) was deleted for Maori, when criterion 5 (related to gambling to escape problems) was deleted for Maori, Europeans and females, when criterion 8 (related to committing illegal acts) was deleted for Europeans and females, and when criterion 9 (related to losing a significant relationship/job) was deleted for Europeans.

Table 70a - DSM-IV clinic sample: Cronbach's alpha by ethnicity

DSM-IV Items	Asian (n=82)		Pacific Island (n=56)		Maori (n=46)		European (n=55)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	80.5	0.607	67.9	0.516	80.4	0.646	63.6	0.625
2	68.3	0.675	67.9	0.541	76.1	0.633	74.5	0.660
3	80.5	0.624	78.6	0.557	82.6	0.683	80.0	0.643
4	56.1	0.583	60.7	0.547	58.7	0.597	56.4	0.632
5	73.2	0.628	70.4	0.534	82.6	0.711	85.5	0.686
6	81.7	0.655	78.6	0.493	84.8	0.635	76.4	0.595
7	54.9	0.600	80.4	0.495	84.8	0.647	67.3	0.637
8	17.1	0.640	23.2	0.533	34.8	0.677	25.5	0.684
9	43.9	0.624	55.4	0.540	43.5	0.636	52.7	0.698
10	28.0	0.607	42.9	0.570	69.6	0.687	40.0	0.644
Total		0.650		0.560		0.681		0.676

Assume 'No' for 'not recorded' items

Table 70b - DSM-IV clinic sample: Cronbach's alpha by gender

DSM-IV Items	Female (n=88)		Male (n=151)	
	%	Cronbach's alpha	%	Cronbach's alpha
1	78.4	0.496	70.9	0.651
2	70.5	0.506	71.5	0.683
3	81.8	0.540	79.5	0.663
4	63.6	0.481	54.3	0.636
5	92.0	0.579	72.2	0.673
6	80.7	0.452	80.1	0.662
7	80.7	0.492	62.9	0.639
8	18.2	0.546	27.2	0.667
9	44.3	0.515	51.0	0.672
10	43.2	0.524	41.7	0.658
Total		0.541		0.684

Assume 'No' for 'not recorded' items

Age

Tables 71a and 71b present the percentage of clients answering 'Yes' to each item and the Cronbach's alphas by age group. When performing the analyses by age, very small sample sizes were available for the under 20 age group (n=9) and the over 50 age group (n=20), thus, findings within these two age groups must be treated with caution and could be spurious. There are minor improvements in the DSM-IV diagnostic tool when criterion 8 is deleted for all age groups except 30-39 and when criterion 9 is deleted for the 40-49 age group.

Table 71a - DSM-IV clinic sample: Cronbach's alpha by age (under 20 to 39 years)

DSM-IV Items	<20 years (n=9)		20-29 years (n=70)		30-39 years (n=71)	
	%	Cronbach's alpha	%	Cronbach's alpha	%	Cronbach's alpha
1	77.8	0.477	82.9	0.609	73.2	0.571
2	33.3	0.550	72.9	0.617	73.2	0.601
3	77.8	0.605	81.4	0.594	81.7	0.589
4	77.8	0.387	62.9	0.586	57.7	0.574
5	88.9	0.534	75.7	0.632	78.9	0.581
6	88.9	0.576	87.1	0.617	88.7	0.598
7	66.7	0.486	68.6	0.587	63.4	0.553
8	44.4	0.536	30.0	0.641	19.7	0.560
9	66.7	0.312	41.4	0.610	49.3	0.590
10	55.6	0.486	45.7	0.611	39.4	0.583
Total		0.532		0.634		0.606

Assume 'No' for 'not recorded' items

Table 71b - DSM-IV clinic sample: Cronbach's alpha by age (under 40 to over 50 years)

DSM-IV Items	40-49 years (n=82)		50+ years (n=20)	
	%	Cronbach's alpha	%	Cronbach's alpha
1	66.1	0.676	70.0	0.513
2	74.6	0.702	65.0	0.526
3	76.3	0.703	80.0	0.531
4	50.8	0.671	50.0	0.400
5	84.7	0.704	75.0	0.564
6	71.2	0.663	65.0	0.420
7	80.0	0.665	70.0	0.406
8	22.0	0.727	15.0	0.537
9	54.2	0.733	45.0	0.405
10	42.4	0.698	25.0	0.489
Total		0.717		0.511

Assume 'No' for 'not recorded' items

Chi-square analyses

It was intended that the suitability of items for use with different ethnic groupings would be further examined by Chi-square analysis. However, it was not possible to calculate Chi-square statistics for each ethnicity comparing the item score with meeting the criteria for problem/pathological gambling with the SOGS (i.e. cut-off score three) due to the skewed population group (mostly problem gamblers).

Examination of the association between each item and whether the total DSM-IV score met the criteria for pathological gambling (i.e. DSM-IV cut-off score five) for each ethnic group (Maori, Pacific, Asian and European) showed that the only item with a non-significant association with the total DSM-IV score was for item 10 (relating to relying on others to provide money) in the Asian ($p=0.37$) and Pacific ($p=0.19$) groups. This adds to the evidence that this item adds little value to the clinical assessment using the DSM-IV gambling criteria, for these groups.

4.4.4 Relevance of SOGS-3M and DSM-IV gambling criteria to other screens

From the analyses detailed in the previous section, it would appear that there are certain items currently within the SOGS-3M and the DSM-IV gambling criteria that do not add to the usefulness of the tools within the context of problem gamblers seeking formal help (telephone helpline or face-to-face counselling) within New Zealand, over the past five years.

For the SOGS-3M (clinic data), the least useful items appear to be those relating to borrowing money to gamble or to pay gambling debts (question 13), in particular those detailed in Table 72:

Table 72 - Clinic sample: least useful items of SOGS-3M

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
13c	From other relatives or in-laws	European
13d	From banks, loan companies or credit unions	European
13e	From credit cards	European, Maori, females, 20-29 age group
13f	From loan sharks	European, Pacific, Asian, males, 30+ age group
13g	Cashing in stocks, bonds or other securities	European, Maori, Pacific Asian, all age groups
13i	Borrowed on cheque account (bounced a cheque)	Asian, males, 20-39 age group

For the DSM-IV gambling criteria (telephone helpline and clinic data), there are several items which appear to be less useful than others, detailed in Table 73. It is to be remembered that the telephone helpline has phrased the DSM-IV gambling criteria as questions that are also ordered differently from the original DSM-IV gambling criteria. However, they are not always asked as questions.

Table 73 - Helpline and clinic samples: least useful items of DSM-IV gambling criteria/questions

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
1 (helpline)	Do you go back later to win your money back?	Maori, Pacific Asian
10 (helpline)	Have you ever done anything that is not lawful to get money to gamble with?	European, Maori, Pacific, Asian, under 20, 30-39 and 50-59 age groups
2 (clinic)	Needs to gamble with increased amounts of money in order to achieve the desired excitement	Asian
3 (clinic)	Has repeated unsuccessful efforts to control, cut back or stop gambling	Maori
5 (clinic)	Gambling as a way of escaping from problems or of relieving a dysphoric mood	European, Maori, females
6 (clinic)	After losing money gambling, often returns another day to get even	Asian
8 (clinic)	Has committed illegal acts such as forgery, fraud, theft or embezzlement to finance gambling	European, females, under 20-29 and 40+ age groups
9 (clinic)	Has jeopardised or lost a significant relationship, job or educational or career opportunity because of gambling	European, 40-49 age group
10 (clinic)	Relies on others to provide money to relieve a desperate financial situation caused by gambling	Maori, Pacific, Asian

Problem Gambling Severity Index (PGSI) and Victorian gambling Screen

As detailed in the original research proposal, the relevance of the SOGS-3M and the DSM-IV gambling criteria to the Problem Gambling Severity Index and to the Victorian Gambling Screen was to be assessed.

The nine-item PGSI (from the 33-item Canadian Problem Gambling Index) does have a question relating to borrowing money (item 4: 'Thinking about the past 12 months, how often have you borrowed money or sold anything to get money to gamble?') as does the 22-item VGS (item 22: 'In the past 12 months, how often have you had to borrow money to gamble with?'). However, in both screens this is not further subdivided into a series of questions as with the SOGS-3M and thus is considered unlikely to be problematic in the New Zealand context.

The only PGSI question that correlates with the least useful DSM-IV gambling items detailed in Table 73 is item 3: 'Thinking about the past 12 months, how often have you gone back another day to try to win back the money you lost?'. However, this question is worded differently from the DSM-IV gambling question/criterion and the respondent has a choice of replies ('never', 'sometimes', 'most of the time', and 'almost always'). Two VGS questions correlate with the least useful DSM-IV gambling items detailed in Table 73. These are Item 7: 'In the last 12 months, have you felt that after losing you must return as soon as possible to win back any losses?' and item 10: 'In the last 12 months, have you gambled in order to escape from worry or trouble?'. However, these questions are worded differently from the DSM-IV gambling questions/criteria and the respondent has a choice of replies ('never', 'rarely', 'sometimes', 'often', and 'always'). Thus, although the items were not useful when formulated as a question (telephone helpline) with a dichotomous (yes/no) response or as a diagnostic criterion (some face-to-face treatment providers), they may be more acceptable in the New Zealand context as questions with a multiple response, as well as more usable in a consulting context.

The indications are, therefore, that both the PGSI and the VGS could be useful and appropriate screening instruments to use within the New Zealand context.

4.4.5 Summary of archival data results

Key results from the analysis of archival data detailed on the previous several pages have been summarised below.

Telephone helpline

- The DSM-IV gambling criteria are worded as questions (and re-ordered) which are either asked of the client or the counsellor will check off responses that appear applicable through the general conversation
- 86% of clients with a non-zero score were classified as pathological gamblers using the DSM-IV

CLIC database

- 95% of clients screened with SOGS-3M were classified as problem or pathological gamblers
- 80% of clients assessed using DSM-IV gambling criteria were classified as pathological gamblers
- The median amount of money lost by clients in the four weeks prior to assessment was \$740 (range \$0 to \$370,000)

- Three quarters of the clients felt they were either mostly or completely out of control with their gambling
- The favoured combinations of screening and assessment tools used with clients were:
 - SOGS-3M, DSM-IV gambling criteria, Control over Gambling assessment and Dollars Lost assessment
 - SOGS-3M, Control over Gambling assessment and Dollars Lost assessment

Clinic sample

- 94% of clients screened with SOGS-3M were classified as problem or pathological gamblers
- SOGS-3M questions related to borrowing money (questions 13a to 13i) were the items that were most often not answered (between 19 and 32%)
- Chinese and Korean versions of the SOGS-3M are in use; some phrases are translated in essence of the meaning rather than literally (e.g. there is no understanding of ‘loan sharks’ in Chinese)
- 80% of clients assessed using DSM-IV gambling criteria were classified as pathological gamblers
- DSM-IV gambling criteria which most often had no response recorded (25% or greater) were item 4 (related to being restless or irritable), item 8 (related to illegal acts) and item 10 (related to relying on others to provide money)

Least useful items of DSM-IV gambling criteria/questions and SOGS-3M

In addition to the ‘not answered’ questions, for the DSM-IV gambling criteria (helpline and clinic data), there are several items that do not add to the usefulness of the tools within the context of problem gamblers seeking formal help (from Cronbach’s alpha analyses):

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
1 (helpline)	Do you go back later to win your money back?	Maori, Pacific Asian
10 (helpline)	Have you ever done anything that is not lawful to get money to gamble with?	European, Maori, Pacific, Asian, under 20, 30-39 and 50-59 age groups
2 (clinic)	Needs to gamble with increased amounts of money in order to achieve the desired excitement	Asian
3 (clinic)	Has repeated unsuccessful efforts to control, cut back or stop gambling	Maori
4 (clinic)	Is restless or irritable when attempting to cut down or stop gambling	26.4% of responses missing
5 (clinic)	Gambling as a way of escaping from problems or of relieving a dysphoric mood	European, Maori, females
6 (clinic)	After losing money gambling, often returns another day to get even	Asian
8 (clinic)	Has committed illegal acts such as forgery, fraud, theft or embezzlement to finance gambling	European, females, under 20-29 and 40+ age groups 38.9% of responses missing.
9 (clinic)	Has jeopardised or lost a significant relationship, job or educational or career opportunity because of gambling	European, 40-49 age group
10 (clinic)	Relies on others to provide money to relieve a desperate financial situation caused by gambling	Maori, Pacific, Asian 34.7% of responses missing

In addition to the ‘not answered’ questions, for the SOGS-3M (clinic data), the least useful items appear to be those relating to borrowing money to gamble or to pay gambling debts (question 13), in particular:

<i>Item</i>	<i>Topic</i>	<i>Group least useful for</i>
13a	From household money	18.8% of responses missing
13b	From spouse	27.5% of responses missing
13c	From other relatives or in-laws	European 22.5% of responses missing
13d	From banks, loan companies or credit unions	European 27.8% of responses missing
13e	From credit cards	European, Maori, females, 20-29 age group 28.7% of responses missing
13f	From loan sharks	European, Pacific, Asian, males, 30+ age group 32.3% of responses missing
13g	Cashing in stocks, bonds or other securities	European, Maori, Pacific Asian, all age groups 35.1% of responses missing
13h	Sold or pawned personal or family property	27.5% of responses missing
13i	Borrowed on cheque account (bounced a cheque)	Asian, males, 20-39 age group 31.7% of responses missing

Other screens

Although the Problem Gambling Severity Index (from the Canadian Problem Gambling Index) and the Victorian Gambling Screen both contain items that were not useful in the current analyses, they are worded differently with different possible responses and thus may be acceptable in the New Zealand context.

Analysis difficulties

There were some difficulties the research team had to overcome when performing the analyses for this part of the report. The key difficulties arose due to inconsistencies between paper records (the raw data) and the CLIC database, particularly with regard to dates but also with the summary scores for screening instruments. This highlights a lack of care or double-checking procedures during entry of raw data into the database. As evidenced from the interviews (results presented in Section 4.2, in some cases a major purpose for using the screening tools is as a requirement for funding obligations, therefore, they may be a secondary issue to helping clients and may possibly lead to a lack of motivation for the collection of quality data. In one case, the raw data itself had not been maintained (i.e. it had been discarded after the summary scores had been entered into the database).

Occasionally, there also appeared to be confusion with the adding up of scored items particularly with the SOGS-3M where two of the questions are not meant to be scored. This has highlighted issues with:

- Training of staff to use the screening tools
- Complexity of SOGS-3M scoring system, allowing for possible errors in diagnosis

4.5 Discussion and recommendation of screening/assessment instruments

As stated in the literature review “the emphasis in the present context is on clinical applications and our focus, therefore, must be on problem gambling measures that best serve the functions of screening leading to diagnosis as well as assessment of severity and therapeutic change. The emphasis must also be on measures that rest as firmly as possible on a coherent theory of problem and pathological gambling along with a clear definition and adequate operationalisation”.

We must also keep in mind the Ministry’s need to maintain a national database containing client characteristics of those seeking help for problem gambling. The current national database is unique in that no other jurisdiction has such a nationwide plethora of information built up over such a time period. This information not only can be invaluable in helping to inform priorities for policy, practice and research but can serve as a useful resource for other (international) jurisdictions that wish to learn from the New Zealand context.

However, this research has brought to light some flaws in the current national database which make some of the data within it questionable. Although the percentage of errors in the database is possibly negligible in the context of the importance of having such a resource, the reason for some of the errors can probably be negated by tailoring the battery of screening/assessment tools towards the needs of the users, i.e. the service providers. Currently, it appears that the purpose of using an instrument is sometimes merely to provide information for the database which provides no incentive for accurate reporting on the paper questionnaires (noted by missing data) or for clinical staff to enter data into the database (noted by mis-matches between raw data paper records and electronic database) - these both lead to inaccuracies within the database which may then be reported in the annual publications produced from the database.

Examples of where there may be inaccuracies within the database were obtained through the in-depth interviews and focus groups with counsellors from the participating organisations. For example, we were told of occasions where the three-month time frame was disregarded when administering the SOGS-3M. This would of course, invalidate the results obtained. There is some confusion over the way the Dollars Lost assessment is interpreted such as whether it relates to dollars lost, spent and won in relation to total earnings or total debt. Due to this confusion, the reporting of numerical figures for dollars lost varies amongst organisations and thus means that the figures reported are not always comparable.

Other areas of inconsistency occur with use of the DSM-IV gambling criteria which are not always used as a clinical diagnostic tool (for which it was developed). Sometimes the tool appears to be used as a questionnaire with clients and in some cases the questions are ordered differently from the original DSM criteria. Results obtained from these alternative uses of the criteria are not, therefore, directly comparable with results obtained from use of the tool as a diagnostic aid. However, all results are currently used as though they are comparable.

Currently, the total number of screening/assessment instruments used with any one client at the initial counselling assessment varies from one to 11. It is not known why there is this variability which may relate to the needs of individual clients. However, the most common combination of tools used includes SOGS-3M, Control over Gambling assessment, Dollars Lost assessment and DSM-IV gambling criteria (though the latter assessment is less frequently used). Whilst participants in this study felt that each of these tools has its merits for benefiting the client or the therapeutic process (albeit there was variability in responses between and within organisations), it was also clear that an important reason for using the tools was to receive funding for the organisation. This gave the impression that clinicians

thought that if they did not use the tool, their organisation would not receive funding for the client, irrespective of whether the tool was deemed useful by the counsellor.

There were various perceived flaws with the screening/assessment instruments currently in use. Major themes were that the instruments were: too long (SOGS-3M), contained culturally inappropriate wording (SOGS-3M, Control over Gambling assessment), or assessed an inappropriate timeframe (SOGS-3M, Dollars Lost assessment, Control over Gambling assessment).

Analysis of database and clinic data revealed that there are some items within the SOGS-3M and DSM-IV gambling criteria that added little to the value of the tool when used within the New Zealand context. These generally related to the majority of the questions around borrowing money in the SOGS-3M and several of the DSM-IV gambling criteria (different criteria for different ethnic groups).

Based on all considerations, our recommendations for screening/assessment instruments to be used in the New Zealand context are as follows.

It should be noted here that some of the recommended instruments detailed in the following pages have not previously been evaluated within a New Zealand context. Thus their usability in the specific cultural contexts of New Zealand (especially Maori, Pacific and Asian populations) is not known. Likewise, the usefulness of the screens for different genders and age groups may not previously have been ascertained. However, this should not preclude the use of specific instruments in this project and any screening tools selected for trial can be assessed for sensitivity to culture, gender and age, where possible.

What is important to remember, at this stage, is that service providers currently use screening tools with which there is some evidence for dissatisfaction and that the data collected from use of these screens is sometimes invalid or inaccurate. The purpose of proposing a new set of recommended screening instruments is to find a balance between functionality for the clinician and for the national database.

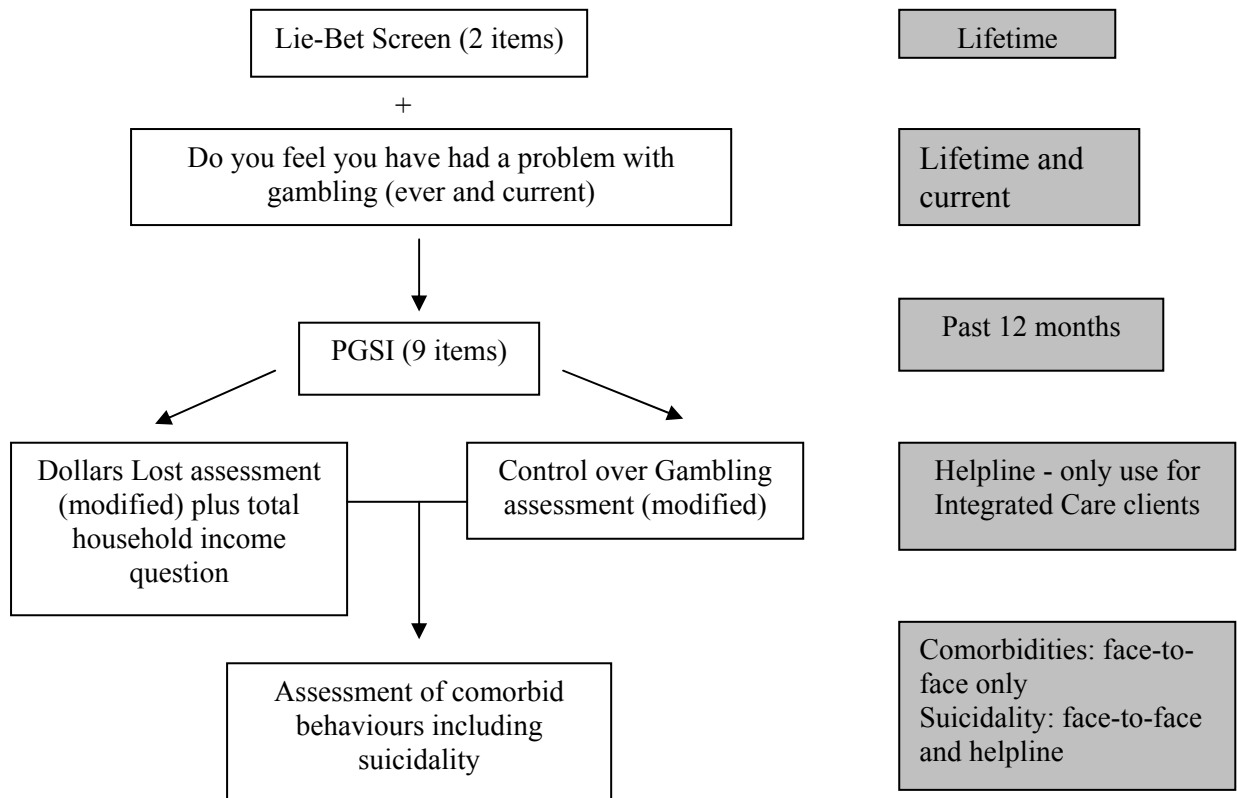
The recommended screening instruments detailed overleaf were agreed to be trialled by participants in a key stakeholders' meeting, convened on 25 September 2006. Apart from the project researchers, 12 stakeholders participated in the meeting, representing all the types of service providers who participated in the first phase of the project. There was substantial discussion around the instruments to be trialled and the methodology of Phase Two. Key points in particular focused on:

- The need for cultural training for everyone, so that each counsellor is able to work appropriately with a person from any other culture. This is outside the remit of this project but is an area that the Ministry of Health may like to consider.
- The need for very brief questions to assess comorbid behaviours such as alcohol misuse/dependence, drug use, depression and suicidality. Based on the responses to these very brief questions, more in-depth screening of a particular comorbidity can subsequently take place, if considered necessary by the counsellor.

Note that it is recommended that each person who screens/assesses clients should be trained in the use and the purpose of the utilised instruments

Gambling screens

Use in helpline and face-to-face clinics



The literature review identified a need for an extremely brief problem gambling screen that could be followed by a lengthier assessment for helpline and primary care settings. Findings from the focus groups showed concurrence with participants expressing the importance of building a connection and rapport with clients before administering lengthy screens. The Lie-Bet screen was selected for trial in this regard since it is the shortest of the brief screens and is likely to be an effective filter.

The Lie-Bet screen used initially would establish whether the client had ever had a gambling problem. Archival data analyses indicated that up to 20% of clients attending services did not currently have a problem with gambling. The Lie-Bet screen would be followed by self-referent questions as to whether the client feels that they have had a problem with gambling, either in the past or currently. As discussed in the literature review, these questions in New Zealand prevalence surveys identified about half the people assessed by formal screens as being problem gamblers. These questions thus would also identify some of those people who currently did not score as a problem gambler using a problem gambling screen but who considered themselves to have, or have had, a problem. Clearly, if the client indicates that they have a problem before being asked the questions, then these self-referent questions need not be asked. These four brief questions could be used by counsellors in the rapport building process with clients, before administering other screening questions.

If a client answers 'yes' to either one or both of the Lie-Bet questions or to either of the self-referent (problem) questions, the nine Problem Gambling Severity Index (PGSI) questions should be asked. Scoring of responses will enable the client to be identified as a non-problem gambler, low risk gambler, moderate risk gambler, or problem gambler and this identification may be useful in the treatment process and for national database informational purposes too.

The PGSI²³ was selected as the instrument of choice because it is brief²⁴, it does not use the questions that were shown to be least useful within the SOGS-3M (from the archival data analysis), it has a current time frame (past 12 month) which allows the potential for observing changes over time²⁵, and it is a tool that is being used in the 2006/07 New Zealand Health Survey as well as internationally. The latter will allow comparisons with datasets from other jurisdictions. Note that use of the PGSI with a 12-month time frame would not allow assessment of therapeutic change in a shorter time frame. Consideration needs to be given as to whether therapeutic change needs to be captured on the database or just used as a therapeutic tool by clinicians. Our suggestion is to use the 12-month validated time frame at first interview with a shorter time frame (i.e. one that fits the time frame between follow-up calls) at the follow up Integrated Continuing Care interviews. It should be noted that the reliability and validity of using the PGSI in a shorter time frame has not been established and neither has its sensitivity as a tool for assessing therapeutic change over a given time frame; it may prove not to be a useful tool in that context. However, this can be trialled as part of this project (in Phase Two) to see whether in a shorter time frame it performs as well as the original 12-month time frame as well as being sensitive to change in behaviour.

The Dollars Lost and Control over Gambling assessments were generally identified as useful tools from the interview and focus group data, though some limitations to these assessments were identified. Thus, it is recommended that the following changes are made to these instruments, for the reasons detailed below:

Dollars Lost: This assessment was identified as ambiguous in its current wording and the time frame was deemed unsuitable because of the difficulty of remembering how much money was spent/lost on gambling up to four (individual) weeks prior to being asked. However, as an instrument it was generally considered to be a very useful tool within the therapeutic process and whilst the four week time frame may not be suitable for all clients it will provide a correlation with the revised Control over Gambling assessment that has been re-framed to the past month (see below). There is very little research on how to obtain accurate information about gambling losses. Twelve different ways of asking a question about expenditure on gambling were investigated by Williams and Wood (2004) who found that self-report is the best way of investigating individual gambling expenditures and that asking how much is spent in a typical month is the best approach. Our recommendation is to re-frame this assessment using the suggestion of Blaszczynski, Dumlao and Lange (1997), that net expenditure is ascertained as this represents the actual amount of money the gambler has gambled and represents the true cost of gambling to the individual. A definition of expenditure will need to be provided, which it is suggested is worded as follows:

In the last four weeks when you gambled, please give an estimate of the amount of money you spent gambling. This is the total amount of money in dollars that you used on your gambling activity/ies (i.e. money you took to gamble with PLUS any additional money you obtained and gambled with such as from cash machines, EFTPOS etc). Ignore any money you won during your gambling sessions.

Note that the client is asked about the last four weeks *when they gambled* - this is to overcome the fact that binge gamblers may not have gambled in the month prior to seeing a counsellor, likewise with clients newly released from prison. By framing the question around the last

²³ There are no copyright issues in using the PGSI or the CPGI as it is part of the public domain (Wynne, 2007, personal communication).

²⁴ Interview and focus group results indicated that the SOGS-3M was too long with 20 scored items and with unclear language/wording in some questions.

²⁵ The New Zealand developed EIGHT Screen, whilst of similar length (eight as opposed to nine items), has a lifetime format and was developed as an early intervention tool which indicates when further in-depth screening is required.

four weeks of gambling, it is hoped that the timeframe issue will be more suitable with clients for whom it was previously not suitable. In addition, a question around total household income has been added to allow some estimation of percentage of disposable income spent gambling.

Control over Gambling: This was considered to be too wordy with language not understandable by Asians, and with an inappropriate time frame. Following discussion with one of the Asian advisory representatives for this project and at the key stakeholders' meeting, our recommendation is to reframe this assessment as follows:

- 1) During the past month, I have had complete control over my gambling
- 2) During the past month, I have had some control over my gambling
- 3) During the past month, I have had little control over my gambling
- 4) During the past month, I have had no control over my gambling

Other health screens

As discussed in the literature review, comorbid disorders are common amongst problem gamblers. These include a whole raft of substance use disorders as well as psychiatric conditions and personality disorders. Thus there is a need to screen for these co-occurring conditions to be able to address issues that arise in speciality treatment and to improve rates of retention in treatment.

The above view was endorsed by the interview and focus group participants who felt that screening for comorbidities would be useful with problem gambling clients, although it was generally considered important to use brief instruments. At this point, it is important to reiterate that different comorbidities are currently screened for, both between and within organisations and there was no consensus on the disorders that should be screened, or the instruments which should be used.

For the purposes of this project and trial, eight short questions assessing alcohol use (the AUDIT-C), other drug use, depression, suicidality and general health/wellbeing have been chosen. These were identified and agreed to following significant discussion at the key stakeholders' meeting. As there had been consensus from the interview data that the AUDIT was a useful tool to screen for alcohol use comorbid with problem gambling (except in the Asian context), it was agreed at the stakeholders' meeting that the shorter AUDIT-C would be preferable. The other five questions were based on recommendations from a workforce competency project recently conducted by Abacus Counselling and Training Services for the Ministry of Health and from Te Whare Tapa Wha Maori model of health. At the stakeholders' meeting it was agreed that those brief questions would be ideal to be trialled in this project and would cover the main areas of comorbidity that were generally considered to be of the most importance. Responses to the questions would indicate the potential of comorbid issues and would allow counsellors the choice of referring clients to agencies specialised in treating the comorbid condition, or to further assess clients for a specific disorder using a validated screen.

None of these screens is likely to be useful in the helpline situation where the counsellor is more likely to listen to the client than to ask them questions. However, as crisis situations appear to be more likely amongst clients of the helpline, a suicidality question (the currently used question) should remain.

Other screens

Culture

Information obtained from the interviews and focus groups has clearly indicated a need for cultural appropriateness when screening and assessing gambling-related clients. As the cultural needs vary dependent on the organisation providing the service, it is recommended that ethnic-specific services should also use whatever assessment processes are culturally appropriate for their organisation, in addition to using the recommended screens detailed previously. For example, Maori organisations may wish to follow Te Whare Tapa Wha or some other model of Maori health, whilst Pacific service providers may wish to utilise a Pacific model of health such as the Fonofale model.

Family/whanau

All face-to-face gambling counselling participants currently use the 'family/whanau assessment checklist' with 'significant other' clients. A variety of other assessments are also used. It is recommended that the 'family/whanau assessment checklist' continues to be used with significant other clients since no major issues with this instrument were raised in Phase One of this project.

In-depth alcohol and depression/anxiety screens

As there were mixed interview participant responses relating to the usefulness of using in-depth screens for issues such as drug use, depression and anxiety, it is recommended that these screens not be used routinely with clients but at the discretion of the counsellor. The choice of screen used should be an organisational decision. It would be useful from a national (data collection) perspective if there were to be standardisation between organisations regarding the choice of screens used.

Alcohol and drug treatment services

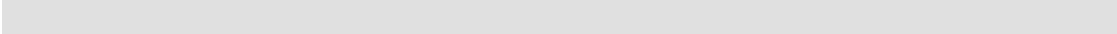
Staff from an alcohol and drug rehabilitation trust participated in the interviews and focus group parts of this project. This was a specialised setting and was slightly removed from the other participants who had a direct relationship primarily with problem gamblers and their families. However, the rehabilitation trust participants stated the need for a gambling screen to assess comorbidities with alcohol and drug dependence. Currently the CGS is used; this is an in-house developed 34-question screen including the SOGS, other questions relating to gambling, suicide and visits to a doctor. It is recommended that the CGS is replaced with the CPGI which is one question shorter than the CGS and which covers a similar variety of questions. The CPGI has been recommended as it includes the PGSI which has been recommended for use in the specialised problem gambling treatment organisations. It also has the advantage of not including the SOGS questions relating to borrowing money which were least useful and least likely to be answered in analyses on archival CLIC database and paper raw data records. The CPGI items include questions on gambling involvement (including expenditure), adverse consequences of gambling (including anxiety and financial problems) and problem gambling correlates (including alcohol and drug problems in gamblers or in family, depression, and suicidality).

Integrated Continuing Care

The purpose of screening/assessing a client during the Integrated Continuing Care process is to ascertain behavioural change within that person, including level and control over gambling. It is recommended for those clients that the nine-item PGSI be used together with the Dollars Lost and Control over Gambling assessments. As previously mentioned, the sensitivity of the PGSI as a tool for assessing therapeutic change over a given time frame has not yet been established and it may prove not to be a useful tool in that context. However, this can be trialled as part of this project (in Phase Two).

Recommended screening instruments/questions are detailed in Appendix 5.

Following the Phase Two trial of the recommended screening instruments, it will be possible to make a more definitive recommendation (e.g. whether refinement is necessary) regarding problem gambling and other health screening tools to be used in the different contexts (organisationally as well as culturally) and it may be possible also to be more definitive regarding alcohol and depression/anxiety screens and cultural models of health.



4. LIMITATIONS OF THIS STUDY

There is one national telephone helpline, two national face-to-face counselling providers and a number of small, localised face-to-face counselling services available for access by problem gambling clients in New Zealand. In addition, some alcohol and drug agencies also routinely screen their clients for comorbid gambling problems. Under the constraints of time and budget for this project, it has not been possible to involve all organisations that provide services to clients with gambling problems. However, a representative proportion of the service providers who routinely provide client data to the Ministry of Health have taken part in the project including the telephone helpline, the two national providers as well as Maori, Pacific and Asian service providers. In addition, one alcohol and drug agency has participated. The organisations were selected following discussions with John Hannifin on behalf of the Problem Gambling Committee and Grant Paton-Simpson, the manager of the National Counselling Statistics (CLIC) database.

Again, due to budgetary and time constraints there were limitations in terms of the number of participants from each organisation involved in the interviews and focus groups. Usually, though not always, the same people who took part in an interview also participated in a focus group. Participants were selected by their managers based on the participant's availability at the time of the required phase of the project. Therefore, participants were not randomly selected.

Since only a limited number of participants were involved in the in-depth interviews (N=19) the results presented may represent their personal views as well as the views of their organisation. The results may, therefore, be biased and should not be generalised to the New Zealand problem gambling service provider population as a whole. However, it should be noted that the major problem gambling service provider organisations provided staff to participate in the interviews; this included three national service providers (helpline and face-to-face counselling), the longest running Maori service provider, a major Pacific service provider, and the only Asian service provider. For the two largest organisations, participants were recruited from two distinct locations, Auckland in the North Island and Christchurch in the South Island, in order to minimise location bias in the responses.

The open-ended questions used in the interviews were coded prior to analysis. This involved subjective judgement by the researchers. Open-ended questions also only measure what people think when asked the question, not their full knowledge. However, this was redressed somewhat in the focus groups where many of the open-ended questions were re-visited.

It was unfortunate that one of the focus group tape recordings was unusable due to extensive poor quality. This was the only focus group conducted in Christchurch; the others were all held in Auckland. Based on interview data, it is considered unlikely that the Christchurch focus group participants would have differed significantly from the Auckland participants and thus the research results should not be compromised. However, it is possible that some rich and useful information may have been lost because of the technical problems.

Finally, with regard to analyses of data within the two databases (Gambling Helpline and CLIC) we were constrained by the available data, the quality of those data and the ability to match CLIC data with paper records received from clinics. The number of usable records received from clinics for Maori and European populations was slightly less than anticipated. This marginally reduced the power in ethnicity analyses; however, this was not considered to be of importance since sufficient data were available to perform those analyses satisfactorily.

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APPENDIX 1
Ethical approval

M E M O R A N D U M

Academic Services

To: Max Abbott
From: **Madeline Banda**
Date: 24 January 2005
Subject: 05/18 **Problem gambling assessment and screening instruments**

Dear Max

Thank you for providing written evidence as requested. I am pleased to advise that it satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC) at their meeting on 14 February 2005. Your ethics application is now approved for a period of two years until 24 February 2008.

For record purposes, the applicant is requested to provide the Ethics Coordinator with copies of letters agreeing collaborative partnership as they become available.

I advise that as part of the ethics approval process, you are required to submit to AUTEC the following:

- A brief annual progress report indicating compliance with the ethical approval given using form EA2 which is available online at http://www.aut.ac.nz/research_showcase/pdf/appendix_g.doc, including a request for extension of the approval if the project will not be completed by the above expiry date;
- A brief report on the status of the project using form EA3 which is available online at http://www.aut.ac.nz/research_showcase/pdf/appendix_h.doc. This report is to be submitted either when the approval expires on 24 February 2008 or on completion of the project, whichever comes sooner;

You are reminded that, as applicant, you are responsible for ensuring that any research undertaken under this approval is carried out within the parameters approved for your application. Any change to the research outside the parameters of this approval must be submitted to AUTEC for approval before that change is implemented.

Please note that AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to make the arrangements necessary to obtain this.

To enable us to provide you with efficient service, we ask that you use the application number and study title in all written and verbal correspondence with us. Should you have any further enquiries regarding this matter, you are welcome to contact Charles Grinter, Ethics Coordinator, by email at charles.grinter@aut.ac.nz or by telephone on 917 9999 at extension 8860.

On behalf of the Committee and myself, I wish you success with your research and look forward to reading about it in your reports.

Yours sincerely



Madeline Banda
Executive Secretary
Auckland University of Technology Ethics Committee

APPENDIX 2

Interview questionnaire

First of all I will ask you some general questions about yourself and your assessment/screening of your clients.

- | | | |
|--|------|--------|
| | Male | Female |
| 1. What is your gender? | | |
| 2. What is your organisation's name? | | |
| 3. What is your role within your organisation? | | |
| 4. What percentage of your working time is spent seeing clients? | | |
| 5. When do you usually assess/screen your gambling-related clients (specify all occasions)? Is it at: | | |
| a. First interview? | Yes | No |
| b. Second interview? | Yes | No |
| c. Discharge? | Yes | No |
| d. At times other than or additional to those just mentioned (specify all occasions)? | Yes | No |
| 6. When do you usually assess/screen your 'significant other' clients (specify all occasions)? Is it at: | | |
| a. First interview? | Yes | No |
| b. Second interview? | Yes | No |
| c. Discharge? | Yes | No |
| d. At times other than or additional to those just mentioned (specify all occasions)? | Yes | No |
| 7. When you assess/screen a gambling-related client, what aspects of the gambling do you need to know about? | | |
| 8. When you assess/screen a gambling-related client, what other aspects about that person do you need to know about? | | |
| 9. Are the same tools or set of tools used at each assessment/screening? | | |
| a. If NO, please specify details | Yes | No |

I will now ask questions about each of the standard problem gambling assessment/screening tools.

10. Do you, or does your organisation, currently use the SOGS-3M (South Oaks Gambling Screen - 3 Month) with gambling-related clients?
- Yes No

If YES, ask the following questions (a - g below).

If NO, ask whether any variant, i.e. SOGS, SOGS-R, SOGS-6M, SOGS-12M is used.

Yes No

If YES, specify which variant is used (SOGS/ SOGS-R/ SOGS-6M/ SOGS-12M) and ask the following questions (a - g below) for that variant.

If NO, go to Q.11

- | | | |
|---|--|------------|
| a. In what way specifically does the SOGS-3M assist you in assessing a gambling-related client? | | |
| b. What other uses, if any, does the SOGS-3M have? | | |
| c. How important are these uses: | | |
| i. To you as a practitioner? | | |
| ii. To your organisation? | | |
| iii. To your client/s? | | |
| d. Could the SOGS-3M be improved? | | |
| Yes No | | Don't know |
| i. If YES ask How? | | |
| ii. And then Why? | | |
| e. Should the SOGS-3M stop being used? | | |
| Yes No | | Don't know |
| i. If YES ask Why? | | |

- f. Do you use the results from the SOGS-3M with your gambling-related clients for any of the following?
 - i. To monitor client progress Yes No
 - ii. To create a treatment plan Yes No
 - iii. Data collection for your organisation Yes No
 - iv. To feedback to clients Yes No
 - v. Other reason (specify)? Yes No
- g. Do you believe that there are any practical issues in getting reliable information using the SOGS-3M?
 - Yes No
 - i. If YES, please specify

11. Do you, or does your organisation, currently use the Total Dollars Lost assessment with gambling-related clients?

Yes No

If YES, ask the following questions.

If NO, go to Q.12

- a. In what way specifically does the Total Dollars Lost assessment assist you in assessing a gambling-related client?
- b. What other uses, if any, does the Total Dollars Lost assessment have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?
- d. Could the Total Dollars Lost assessment be improved?
 - Yes No Don't know
 - i. If YES ask How?
 - ii. And then Why?
- e. Should the Total Dollars Lost assessment stop being used?
 - Yes No Don't know
 - i. If YES ask Why?
- f. Do you use the results from the Total Dollars Lost assessment with your gambling-related clients for any of the following?
 - i. To monitor client progress Yes No
 - ii. To create a treatment plan Yes No
 - iii. Data collection for your organisation Yes No
 - iv. To feedback to clients Yes No
 - v. Other reason (specify)? Yes No
- g. Do you believe that there are any practical issues in getting reliable information using the Total Dollars Lost assessment?
 - Yes No
 - i. If YES, please specify

12. Do you, or does your organisation, currently use the Control over Gambling assessment with gambling-related clients?

Yes No

If YES, ask the following questions.

If NO, go to Q.13

- a. In what way specifically does the Control over Gambling assessment assist you in assessing a gambling-related client?
- b. What other uses, if any, does the Control over Gambling assessment have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?

- d. Could the Control over Gambling assessment be improved?
- | | | |
|-----|----|------------|
| Yes | No | Don't know |
|-----|----|------------|
- i. If YES ask How?
- ii. And then Why?
- e. Should the Control over Gambling assessment stop being used?
- | | | |
|-----|----|------------|
| Yes | No | Don't know |
|-----|----|------------|
- i. If YES ask Why?
- f. Do you use the results from the Control over Gambling assessment with your gambling-related clients for any of the following?
- | | | |
|--|-----|----|
| i. To monitor client progress | Yes | No |
| ii. To create a treatment plan | Yes | No |
| iii. Data collection for your organisation | Yes | No |
| iv. To feedback to clients | Yes | No |
| v. Other reason (specify)? | Yes | No |
- g. Do you believe that there are any practical issues in getting reliable information using the Control over Gambling Assessment?
- | | | |
|--|-----|----|
| | Yes | No |
|--|-----|----|
- i. If YES, please specify

13. Do you, or does your organisation, currently use DSM-IV gambling assessment criteria with gambling-related clients?

Yes	No
-----	----

If YES, ask the following questions.

If NO, go to Q.14

- a. In what way specifically do the DSM-IV gambling assessment criteria assist you in assessing a gambling-related client?
- b. What other uses, if any, do the DSM-IV gambling assessment criteria have?
- c. How important are these uses:
- | | | |
|------------------------------|--|--|
| i. To you as a practitioner? | | |
| ii. To your organisation? | | |
| iii. To your client/s? | | |
- d. Could the DSM-IV gambling assessment criteria be improved?
- | | | |
|-----|----|------------|
| Yes | No | Don't know |
|-----|----|------------|
- i. If YES ask How?
- ii. And then Why?
- e. Should the DSM-IV gambling assessment criteria stop being used?
- | | | |
|-----|----|------------|
| Yes | No | Don't know |
|-----|----|------------|
- i. If YES ask Why?
- f. Do you use the results from the DSM-IV gambling assessment criteria with your gambling-related clients for any of the following?
- | | | |
|--|-----|----|
| i. To monitor client progress | Yes | No |
| ii. To create a treatment plan | Yes | No |
| iii. Data collection for your organisation | Yes | No |
| iv. To feedback to clients | Yes | No |
| v. Other reason (specify)? | Yes | No |
- g. Do you believe that there are any practical issues in getting reliable information using the DSM-IV gambling assessment criteria?
- | | | |
|--|-----|----|
| | Yes | No |
|--|-----|----|
- i. If Yes, please specify

I will now ask questions about other assessment/screening tools.

14. Do you, or does your organisation, currently use a screen for depression with gambling-related clients?

Yes	No
-----	----

If YES, which one?

If YES, ask the following questions.

If NO, go to Q.15

- a. In what way specifically does the screen for depression assist you in assessing a gambling-related client?
- b. What other uses, if any, does the screen for depression have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?
- d. Could the screen for depression be improved?

Yes	No	Don't know
i. If YES ask How?		
ii. And then Why?		
- e. Should the screen for depression stop being used?

Yes	No	Don't know
i. If YES ask Why?		
- f. Do you use the results from the screen for depression with your gambling-related clients for any of the following?

i. To monitor client progress	Yes	No
ii. To create a treatment plan	Yes	No
iii. Data collection for your organisation	Yes	No
iv. To feedback to clients	Yes	No
v. Other reason (specify)?	Yes	No
- g. Do you believe that there are any practical issues in getting reliable information using the screen for depression?

	Yes	No
i. If YES, please specify		

15. Do you, or does your organisation, currently use the AUDIT screen for alcohol use/misuse, with gambling-related clients?

Yes No

If NO, do you use some other screen for alcohol use/misuse? (Specify which one and then ask the questions a - g)

If YES, ask the following questions.

If NO, go to Q.16

- a. In what way specifically does the screen for alcohol use/misuse assist you in assessing a gambling-related client?
- b. What other uses, if any, does the screen for alcohol use/misuse have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?
- d. Could the screen for alcohol use/misuse be improved?

Yes	No	Don't know
i. If YES ask How?		
ii. And then Why?		
- e. Should the screen for alcohol use/misuse stop being used?

Yes	No	Don't know
i. If YES ask Why?		
- f. Do you use the results from the screen for alcohol use/misuse with your gambling-related clients for any of the following?

i. To monitor client progress	Yes	No
ii. To create a treatment plan	Yes	No
iii. Data collection for your organisation	Yes	No
iv. To feedback to clients	Yes	No
v. Other reason (specify)?	Yes	No
- g. Do you believe that there are any practical issues in getting reliable information using the screen for alcohol use/misuse?

	Yes	No
i. If YES, please specify		

16. Do you, or does your organisation, currently use any other substance misuse screen, with gambling-related clients?

Yes No

If YES, specify which one

If YES, ask the following questions.

If NO, go to Q.17

- a. In what way specifically does the other substance misuse screen assist you in assessing a gambling-related client?
- b. What other uses, if any, does the other substance misuse screen have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?
- d. Could the screen for other substance misuse be improved?

Yes	No	Don't know
i. If YES ask How?		
ii. And then Why?		
- e. Should the screen for other substance misuse stop being used?

Yes	No	Don't know
i. If YES ask Why?		
- f. Do you use the results from the other substance misuse screen with your gambling-related clients for any of the following?

i. To monitor client progress	Yes	No
ii. To create a treatment plan	Yes	No
iii. Data collection for your organisation	Yes	No
iv. To feedback to clients	Yes	No
v. Other reason (specify)?	Yes	No
- g. Do you believe that there are any practical issues in getting reliable information using the other substance misuse screen?

	Yes	No
i. If YES, please specify		

17. Do you, or does your organisation, currently use a screen for suicidality, with gambling-related clients?

Yes No

If YES, specify which one

If YES, ask the following questions.

If NO, go to Q.18

- a. In what way specifically does the screen for suicidality assist you in assessing a gambling-related client?
- b. What other uses, if any, does the screen for suicidality have?
- c. How important are these uses:
 - i. To you as a practitioner?
 - ii. To your organisation?
 - iii. To your client/s?
- d. Could the screen for suicidality be improved?

Yes	No	Don't know
i. If YES ask How?		
ii. And then Why?		
- e. Should the screen for suicidality stop being used?

Yes	No	Don't know
i. If YES ask Why?		
- f. Do you use the results from the screen for suicidality with your gambling-related clients for any of the following?

i. To monitor client progress	Yes	No
ii. To create a treatment plan	Yes	No
iii. Data collection for your organisation	Yes	No

- a. Provide effective treatment for your gambling-related client?
 - b. Aid in the Helpline Integrated Continuing Care process?
 - c. Take into account cultural aspects relating to problem gambling?
23. In your opinion, what are the benefits of using standard problem gambling screens, for example SOGS-3M, DSM-IV or other problem gambling screens?
24. In your opinion, what are the problems with using standard problem gambling screens, for example SOGS-3M, DSM-IV or other problem gambling screens?

Now some questions about other specific screens

25. Have you heard of the EIGHT screen?
- | | | | |
|--|-----|----|------------|
| | Yes | No | |
| a. If YES, have you ever used the EIGHT screen? | Yes | No | |
| b. If YES, for what purpose did you use the EIGHT screen? | | | |
| c. If YES to Q.25, do you think the EIGHT screen could potentially be a useful screen for use with gambling-related clients? | Yes | No | Don't know |

26. Have you heard of the Victorian Gambling Screen?
- | | | | |
|---|-----|----|------------|
| | Yes | No | |
| a. If YES, have you ever used the Victorian Gambling Screen? | Yes | No | |
| b. If YES, for what purpose did you use the Victorian Gambling Screen? | | | |
| c. If YES to Q.26, do you think the Victorian Gambling Screen could potentially be a useful screen for use with gambling-related clients? | Yes | No | Don't know |

27. Have you heard of the Canadian Problem Gambling Index (CPGI)?
- | | | | |
|--|------------------|-----------------|------------|
| | Yes | No | |
| a. If YES, have you ever used the CPGI or the short 9 item form, the Canadian Problem Gambling Severity Index (CPGSI)? State which was used. | Yes (CPGI/CPGSI) | No (CPGI/CPGSI) | |
| b. If YES, for what purpose did you use the CPGI or CPGSI? | | | |
| c. If YES to Q.27, do you think the CPGI could potentially be a useful screen for use with gambling-related clients? | Yes | No | Don't know |

28. In your opinion should gambling-related clients also be screened for general psychopathology, for example using the GHQ-12 (show participant GHQ-12 screen)?
- | | | |
|--|-----|----|
| | Yes | No |
| a. If YES, would you use the results from this screen with your gambling-related clients for any of the following? | | |
| i. To monitor client progress | Yes | No |
| ii. To create a treatment plan | Yes | No |
| iii. Data collection for your organisation | Yes | No |
| iv. To feedback to clients | Yes | No |
| v. Other reason (specify)? | Yes | No |

29. In your opinion should gambling-related clients also be screened for comorbid disorders?
- | | | |
|---|-----|----|
| | Yes | No |
| a. If YES, would you use the results from this screen with your clients for any of the following: | | |
| i. To monitor client progress | Yes | No |
| ii. To create a treatment plan | Yes | No |
| iii. Data collection for your organisation | Yes | No |

- | | | |
|----------------------------|-----|----|
| iv. To feedback to clients | Yes | No |
| v. Other reason (specify)? | Yes | No |
30. If YES to Q29, which comorbid disorders should be screened for?
-

31. What else would you like to tell us regarding screening and assessment instruments for gambling-related and 'significant other' clients?

Approved by the Auckland University of Technology Ethics Committee on 14 February 2005
AUTEC Reference number 05/18

APPENDIX 3

Focus group questions

1. Thinking about your first session with a gambling-related client:
 - a. What do you need to know about that person's gambling in order to be able to help the client?
 - b. What else do you need to know about that person?
[Prompt for other issues in the client's life]
-

2. How important is screening your client:
 - a. To you as a practitioner?
[Prompt for why if a reason not given]
 - b. To your organisation?
[Prompt for why if a reason not given]
 - c. To your client/s?
[Prompt for why if a reason not given]
-

3. How useful do you think screens are in general for treatment providers?
 - a. When **you** use standard problem gambling screens such as SOGS-3M, DSM-IV or other problem gambling screens, what are the benefits?
 - b. When **you** use standard problem gambling screens such as SOGS-3M, DSM-IV or other problem gambling screens, what are the problems?
-

4. What else should gambling-related clients be screened for?
[Prompt for the issues raised in Q.1b.
Also prompt regarding general health screen GHQ12 and show GHQ12 if necessary
And prompt for comorbid disorders such as alcohol abuse, drug dependency, smoking, depression]
-

5. What else would you like to tell us regarding screening and assessment instruments for gambling-related clients and 'significant other' clients?

APPENDIX 4a
Recommended tools: problem gambling treatment providers

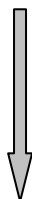
Section A

Gambling screens

Lie/Bet screen

1. Have you ever felt the need to bet more and more money?
 2. Have you ever had to lie to people about how much you gambled?
-

3. Do you feel you have ever had a problem with gambling? (Only ask if not obvious)
4. If the answer to Q3 is yes, ask: And do you feel you currently have a problem with gambling?



If yes to any of questions 1 to 4, proceed to Q5.
If no, to either questions 1 and 2 or question 3,
clinician assessment as deemed necessary

PGSI

Questions 5 to 13 responses: Never / Sometimes/ Most of the time / Almost always

5. Thinking about the past 12 months, how often have you bet more than you could really afford to lose?
 6. Thinking about the past 12 months, how often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
 7. Thinking about the past 12 months, how often have you gone back another day to try to win back the money you lost?
 8. Thinking about the past 12 months, how often have you borrowed money or sold anything to get money to gamble?
 9. Thinking about the past 12 months, how often have you felt that you might have a problem with gambling?
 10. Thinking about the past 12 months, how often have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
 11. Thinking about the past 12 months, how often have you felt guilty about the way you gamble, or what happens when you gamble?
 12. Thinking about the past 12 months, how often has your gambling caused you any health problems, including stress or anxiety?
 13. Thinking about the past 12 months, how often has your gambling caused any financial problems for you or your household?
-

Face-to-face counselling and helpline

Control over Gambling

14. During the past month:

I have had complete control over my gambling

Or

I have had some control over my gambling

Or

I have had little control over my gambling

Or

I have had no control over my gambling

Dollars Lost

15. In the last month when you were gambling, roughly what amount of money did you spend on gambling? This is the total amount of money in dollars that you used on your gambling activity/ies (i.e. money you took to gamble with PLUS any additional money you obtained and gambled with such as from cash machines, EFTPOS etc). Ignore any money you won during your gambling sessions.

Dollars spent on gambling: \$.....

16. Approximate total household annual income:

<\$20,000

\$20, 000 - \$30,000

\$31, 000 - \$50,000

\$51, 000 - \$100,000

\$101, 000 - \$200,000

\$201,000 - \$500,000

\$501,000+

Section B

Comorbidity questions

AUDIT-C

One standard drink is: 30ml straight spirits (two nips/shots, one double), 330ml can of beer or 100ml glass of wine

17. How often did you have a drink containing alcohol in the past year?

(Never / Monthly or less / Two to four times a month / Two to three times per week / Four or more times a week)

18. How many drinks did you have on a typical day when you were drinking in the past year?

(1 or 2 / 3 or 4 / 5 or 6 / 7 to 9 / 10 or more)

19. How often did you have six or more drinks on one occasion in the past year?

(Never / Less than monthly / Monthly / Weekly / Daily or almost daily)

Drug use

20. In the past 12 months, have you ever felt the need to cut down on your use of prescription or other drugs?

Face-to-face counselling and helpline Integrated care Clients only

Face-to-face counselling

Depression

21. In the past 12 months, have you often felt down, depressed or hopeless?
22. In the past 12 months, have you often had little interest or pleasure in doing things?
-

Suicidality

23. Within the last 12 months: Thoughts of self-harm or suicide
(No thoughts in the last 12 months / Just thoughts / Not only thoughts, I have also had a plan / I have tried to harm myself in the past 12 months)
-

Family/whanau concern

24. In the past 12 months, has anyone in your family/whanau worried about your health or wellbeing (including spiritual health)
-

25. Current suicide question

Helpline

Face-to-face counselling

Other screens

1. Appropriate cultural models of health should be used as required, e.g. Te Whare Tapa Wha, Maori model of health; Fonofale Pacific model of health.

Maori, Pacific, Asian services

2. Current family/whanau checklist with significant other clients.

Face-to-face counselling

3. Anxiety and depression screens as required by individual organisations.

Face-to-face counselling and helpline

4. Problem Gambling Severity Index, Dollars Lost and Control over Gambling

Integrated Continuing Care clients

APPENDIX 4b
Recommended tools: alcohol and drug rehabilitation trust

CPGI

Gambling involvement

1. Have you bet or spent money on (list of gambling activities)?
 2. How often did you bet or spend money on (list activity: daily, weekly, monthly, yearly)?
 3. When spending money on (list activity), how many minutes/hours do you normally spend each time?
 4. How much money, not including winnings, did you spend on (list activity) in a typical month?
 5. What is the largest amount of money you ever spent on (list activity) in any one day?
-

Problem gambling correlates

Questions 6 to 13 responses: Never / Sometimes/ Most of the time / Almost always

6. Thinking about the past 12 months, how often have you bet more than you could really afford to lose?
 7. Thinking about the past 12 months, how often have you bet or spent more money than you wanted to on gambling?
 8. Thinking about the past 12 months, how often have you needed to gamble with larger amounts of money to get the same feeling of excitement?
 9. Thinking about the past 12 months, how often have you gone back another day to try to win back the money you lost?
 10. Thinking about the past 12 months, how often have you borrowed money or sold anything to get money to gamble?
 11. Thinking about the past 12 months, how often have you lied to family members or other to hide your gambling?
 12. Thinking about the past 12 months, how often have you felt that you might have a problem with gambling?
 13. Thinking about the past 12 months, how often have you felt you would like to stop betting money or gambling, but didn't think you could?
-

Adverse consequences

14. Thinking about the past 12 months, how often have people criticised your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
 15. Thinking about the past 12 months, how often have you felt guilty about the way you gamble, or what happens when you gamble?
 16. Thinking about the past 12 months, how often has your gambling caused you any health problems, including stress or anxiety?
 17. Thinking about the past 12 months, how often has your gambling caused any financial problems for you or your household?
-

Problem gambling correlates

18. After losing many times in a row, you are more likely to win
(Strongly agree / Agree / Disagree / Strongly disagree)
 19. You could win more if you use a certain system or strategy
(Strongly agree / Agree / Disagree / Strongly disagree)
 20. Do you remember a big WIN when you first started gambling?
 21. Do you remember a big LOSS when you first started gambling?
 22. Has anyone in your family EVER had a gambling problem?
 23. Has anyone in your family EVER had an alcohol or drug problem?
 24. In the past 12 months, have you used alcohol or drugs whilst gambling?
 25. In the past 12 months, have you gambled while drunk or high?
 26. In the past 12 months, have you felt you might have an alcohol or drug problem?
 27. In the past 12 months, if something painful happened in your life, did you have the urge to gamble?
 28. In the past 12 months, if something painful happened in your life, did you have the urge to have a drink?
 29. In the past 12 months, if something painful happened in your life, did you have the urge to have use drugs or medication?
 30. In the past 12 months, have you been under a doctor's care because of physical or emotional problems brought on by stress?
 31. In the past 12 months, was there ever a time when you felt depressed for two weeks or more in a row?
 32. In the past 12 months, have you ever seriously thought about committing suicide as a result of your gambling?
 33. In the past 12 months, have you ever attempted suicide as a result of your gambling?
-

APPENDIX 4c
Counsellor feedback form

Thank you for taking the time to complete this questionnaire. It should not take you more than five minutes to answer these questions. Please answer each question as honestly as you can.

Remember that completion of this questionnaire is voluntary and you can stop at any time.

However, completion of the questionnaire will help us to find out what you thought of the screens that we have been trialling. We will use this information to help us decide what to recommend to the Ministry of Health regarding screening instruments for use with problem gamblers.

Date this form was completed: _____

1. Overall, how would you compare the client questionnaire to the currently used screens?
(Circle one number)

Much improved	Not sure	Much worse
1 2	3 4	5

2. Overall, were you satisfied with the client questionnaire? (Circle one number)

Very satisfied	Not sure	Very unsatisfied
1 2	3 4	5

3. Was the layout of the client questionnaire practical within your therapeutic process?

Yes No

4. Did the client questionnaire aid in the therapeutic process, such as prompting discussion?

Yes Some of the time No

Additional comments: _____

5. Did the client questionnaire require any further explanation or re-wording for clients to understand the questions?

Yes No

If YES, Which questions/words? _____

And what did you use instead/How did you explain? _____

6. Did you need to translate the client questionnaire?

Yes No

If yes, please specify the language _____

7. Did you use other screens or a cultural frame work (model of health) as well as the client questionnaire?

Yes No

If yes, please specify the screens and/or the frame work (model of health) _____

8. Was the client questionnaire useful with all clients?

Yes No

If NO, which types of clients was it not useful for? (Please specify) _____

9. Would you have liked any additional training about the client questionnaire?

Yes No

If so, in what areas? _____

10. Would you like to make any other comments about the client questionnaire?

APPENDIX 5
Summary characteristics of problem gambling screens

Screen	No. Items	Context	Scoring	Year Developed
GA 20 Questions	20 items	Self-help Treatment	0 – 20 Cutoff = 7	Unknown
ISR	18 items	Population research	N/A	1975
IGB/CCSM	23 items in 5 domains	Population research Treatment	0 – 5 domains Cutoff = 3	1987
ASI-G	5 items	Treatment Population research	Composite score	1991
SOGS	20 items	Treatment	0 – 20 Cutoff = 5	1988
SOGS-R	20 items lifetime 20 items PY	Population research	0 – 20 Cutoff = 5	1991
MAGS	7 items	Population research (youth)	Weighted scoring method	1994
DIGS	20 items	Treatment	Cutoff = 5	1997
DIS/GAM-IV	132 items	Population research	N/A	In development
DSM-IV-MR	10 items (all PY)	Population research	Cutoff = 5	1996
NODS	17 items lifetime 17 items PY	Population research	Cutoff = 5	1998
NESARC	15 items	Population research	Cutoff = 5 (in 12-month period)	2001
NCS-R	4 gate items + 14 items	Population research	N/A	2001
SGC	18 items reduced to 12 items	Population research	N/A	1995
VGS	21 items	Population research	N/A	2001
PGSI	9 items	Population research	Cutoff = 8	2001
HARM	21 items	Population research Not suitable for treatment	0 – 21 1+ cutoff	1999
IBS	25 items	VLT players	N/A	2003

GPS	10 item	Population research	N/A	2002
Reduced SOGS	15 items reduced to 6 items	Population research Treatment	Cutoff = 1	2003
Lie-Bet	2 items	Population research Treatment	Cutoff = 1	1997
EIGHT	8 items	Treatment	Cutoff = 4	1999
NODS-CLiP	3 items	Population research Treatment	Cutoff = 1	2003
GAMTOMS	10 items	Treatment	Cutoff = 5	2001
GBI	32 items	Treatment	0 – 32	2001
SCI-PG	11 items	Treatment	Cutoff = 5	2004
YBOCS-PG	10 items	Treatment	0 – 40	1998
G-SAS	12 items	Treatment	Cutoff = 31	2001
G-Map	85 items / 17 domains	Treatment	0 – 100	1996
GUS	6 items	Treatment	0 – 42	2004
GRCS	23 items	Treatment	N/A	2004
G-TLFB	N/A	Population research Treatment	N/A	2003
GSEQ	16 items	Treatment	N/A	2003
GABS	35 items reduced to 10 items	Treatment Student populations	N/A	1999
GRTC	9 items	Student populations Treatment	Composite Means Highest subscale	2002