The Arizona Problem Gambling Outcomes Report

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Bo J. Bernhard, Ph.D. (Principal Investigator and Contact)
Associate Professor
Departments of Sociology & Hotel Management
Director of Gambling Research, International Gaming Institute
University of Nevada Las Vegas
bo.bernhard@unlv.edu

Brett L.L. Abarbanel, Research Assistant
International Gaming Institute
University of Nevada, Las Vegas

Edward W. Crossman, Ph.D. (candidate), Research Assistant
Department of Psychology
University of Nevada, Las Vegas

Ashlee M. Kalina, Research Assistant
Department of Sociology
University of Nevada, Las Vegas

Sarah A. St. John, Research Assistant
Department of Sociology
University of Nevada, Las Vegas

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Introduction

This Report provides research-based insights on the long-term effectiveness of Arizona's problem gambling treatment programs. Its research methodology is informed by two primary resources: 1) the general scientific, peer-reviewed literature on evaluating problem gambling treatment outcomes, and 2) a specific framework suggested by the leading experts in state-supported problem gambling treatment evaluation.

In our view, both of these resources provide vital perspectives on this challenging endeavor. The former approach ensures that this research is grounded in the scientific literature, and the latter ensures that the project meets the unique needs associated with state-supported treatment programs. This approach – one grounded in the best global science, but cognizant of local nuance – is particularly important when attempting to research a behavioral phenomenon as complex as pathological gambling and its treatment (Bernhard, 2007a, 2007b, Shaffer et al, 2005).

Research Methodology

For years, one of the major challenges in the pathological gambling research area was a lack of consensus on the best method of evaluating the success of treatment programs. The past few years, however, have seen this oft-cited shortcoming addressed in an impressive fashion. For those interested in a detailed summary of this new literature – and how it informed our methodology – we have provided this information in the Appendices A and B of this report.

For our methodological purposes right now, we should point out the following:

- All clinics receiving funding from the state were asked to provide a list of contact phone numbers for <u>all</u> clients who graduated or dropped out of their programs – in other words, for all clients who at least participated in an intake interview.

- The research team then attempted to contact every client a minimum of 12 times to conduct computer-assisted telephone interviews (at varying times of day and weekdays/weekends). If clients did not answer, generic, non-identifying messages were left indicating that they were being contacted for a compensated

UNLV study, and that they could contact our office to let us know the best time to contact them. Ultimately, the research team interviewed 77 unique former clients.

- All clients who completed interviews were compensated with a $25 gift card to a leading retailer.

- All participants were read an informed consent statement describing the objectives of this research, informing them of their rights as a participant (including the right to refuse to participate), and detailing the strict confidentiality procedures of the research. Throughout the interview, clients were repeatedly reassured that their names would never be associated with their answers. All participants then verbally consented to participate. All research processes were approved by the UNLV's human subjects committee (protocols 0612-2191, 0801-2603, and 0902-3022).

Quantitative Data Findings

In the next section, we turn our attention to the outcome measurement data. In Table 1 (below), for instance, we can see that when this sample was asked to evaluate their treatment services, mean scores were quite high – clients overwhelmingly indicated that they strongly agreed or agreed with each of these positively-worded items.

Table 1: Evaluations of Treatment Services
Database Codes: nv1 – nv16

	Average Score
1. I like the services that I received from this provider.	1.51
2. I would recommend this agency to a friend or family member.	1.47
3. Services were available at times that were good for me.	1.45
4. I was able to get all the services I thought I needed.	1.62
5. When I called for an appointment with my counselor, I was scheduled within a reasonable time frame.	1.20
6. I felt comfortable sharing my problems with my counselor.	1.38
7. Staff encouraged me to take responsibility for how I live my life.	1.18
8. Staff were sensitive to my cultural background (race, religion, language)	1.43
9. The distance and travel time required to meet with my counselor was reasonable.	1.79
10. I was encouraged to use Gamblers Anonymous and/or GamAnon on a regular basis.	1.40
11. I attended Gamblers Anonymous and/or GamAnon on a regular basis.	2.17
12. Treatment services were provided at a cost I could afford.	1.22
13. Group counseling was helpful.	1.66
14. Individual counseling was helpful.	1.48
15. Family counseling was helpful.	1.76
16. Overall, I was pleased with the results of my treatment program.	1.57

Were this a report card, we would see almost exclusively "A" grades here, as most average scores were in the "1" range. For instance, item 1 ("I liked the services that I received from this provider") yielded a strong mean score of 1.51. Meanwhile, scores were slightly higher on the "I would recommend a friend/family member" item (#2). These first two items indicate that clients liked the services they receive, and that they would recommend these services to a friend or family member in need – both of which, of course, provide strong evidence that overall impressions were positive.

Respondents were also enthusiastic about more practical matters, such as the convenience of times available for treatment (item #3), whether they were able to get all of the services they felt they needed (item #4), and the promptness of their treatment services (a vital matter for addicts, who often reach out at "rock bottom" and need care quickly). On this latter item (#5), scores were among the highest in the entire survey. One matter of concern, however, might emerge from item #9: the "distance and travel time" variable

was a bit less positively received (a finding consistent with the qualitative comments from this group, as we will see later in this report). This finding has important relevance for those attempting to reach this population, as it appears that improvement is possible here.

In another finding that is reinforced in the qualitative data presented later in this report, counselor and staff evaluations were generally positive as well. For instance, respondents expressed that they felt comfortable with their counselors (item #6), and that staff encouraged them to take responsibility for their lives (item #7). Finally, we also see from these data that cultural backgrounds were respected in these clinical settings (item #8).

We also included two items (#s 10 and 11) that measured 12-step engagement (via Gamblers Anonymous or GamAnon). From these data, it appears that almost all who attended these programs were "encouraged" (item #10) to use these resources. It appears from these data that the GA community enjoys strong support from this clinical community. Predictably, however, clients were less likely to actually "attend" (item #11) these meetings. We will re-visit this theme later in this section.

Item #12 investigated an issue that is often vital to problem gamblers for obvious reasons: cost. On this measure, once more most clients "strongly agreed" that services were provided at a cost they could afford, suggesting that state support in Arizona has helped problem gamblers receive affordable care – a finding that was gratefully explained by many in the qualitative part of these interviews as well.

Next, Items 13, 14, and 15 assessed how helpful the group, individual, and family counseling components of the treatment programs were. Group counseling scores were rated highly (both here and in the qualitative comments). Individual sessions were also rated highly (and similarly in the qualitative part of the interview). Finally, family counseling sessions also received strong support in this survey, with strong majorities indicating that they found this approach helpful.

Item 16 provided another general assessment by asking clients whether "overall" they were "pleased with the results of (the) treatment program." Once more, the mean score was a very strong 1.57 -- indicating a strong endorsement of the services they received.

At this stage in the questionnaire, the focus shifted a bit. While Table 1 provides insights on clients' opinions of treatment services, Table 2 (below) paints a portrait of clients' evaluations of specific areas of life improvements (including personal, financial, familial, professional, and other areas). With each of the items in this table, clients were asked whether they had observed improvements "as a direct result of the services I received."

As such, Table 2 provides a more direct measure of the everyday impacts of these clinics. When we recall that responses were categorized in a manner in which "lower is better" (1 = Strongly Agree, 2 = Agree, 3 = Neutral, 4 = Disagree, and 5 = Strongly Disagree) we can see, for instance, that overall, clients indicated that they saw improvements in virtually all categories.

Table 2: Self-Evaluation of Client Improvement
Database Codes: nv17 – nv27

"As a direct result of the services I received…"	**Average Score**
1. I deal more effectively with daily problems.	1.66
2. I am better able to control my life.	1.70
3. I am better able to deal with crisis.	1.91
4. I am getting along better with my family.	1.63
5. I do better in social situations.	1.79
6. I do better in school and/or work.	1.78
7. My housing situation has improved.	2.11
8. My symptoms are not bothering me as much.	1.93
9. My financial situation has improved.	1.84
10. I spend less time thinking about gambling.	1.77
11. I have minimized most of my problems related to gambling.	1.97

On almost all of these items, clients either "strongly agreed" (which was scored as a "1") or "agreed" (scored as a "2") that *as a direct result of the services (they) received*, they saw improvements in any number of important areas. These improvements were observed in spheres as diverse as "dealing with daily problems" (item 1), clients' ability

to control their lives and deal with crisis (items 2 and 3), getting along with family (item 4), improving in social situation (item 5), and improving in school and/or work settings (item 6). When asked about their housing situations (item 7), most indicated that their situation had improved – though these scores were the lowest in the table, a perhaps predictable development given the collapse of the housing market in Arizona.

Similarly, improvements in financial situations (item 8) were observed, but scores were just a bit lower – again, perhaps due to the current economic climate. Finally, on more gambling-specific items, clients reported that their symptoms were not bothering them as much (item 8), that they were spending less time thinking about gambling (item 10), and reported that they were minimizing most of their problems related to gambling (item 11). Once again, were this a report card, the grades would be strong across the board.

In addition to these "opinion variables," we also investigated specific behavioral variables – specifically, those that measured clients' gambling behaviors after they left treatment. When we asked clients whether they had gambled since completing their treatment program, we found sizable rates of those who indicated that they had indeed "slipped" at least one time.

It is important to pause for a moment when interpreting these data, though, as "slips" should be properly understood. Merely having gambled does not constitute a "failure" in problem gambling treatment – any more than cardiology patients who have heart attacks after bypass surgeries indicate a "failure" of the bypass. Treatment – and health – are by their nature dynamic and evolving (which makes longitudinal assessments like this study all the more important). Furthermore, the observation that so many of these individuals are abstaining completely from gambling is an impressive story in itself when understood against the backdrop of frequent recidivism with addiction in general and problem gambling in particular. With this in mind, let us turn our attention to the data:

Table 3: Recidivism – Have you gambled since completing the program?
Database Code: nv33

Gambled?	N	Percentage
Yes	35	47.3
No	39	52.7
Total	74	

Table 3 tells us that 47.3% of these individuals indicated that they had gambled after treatment, while nearly 53% % indicated that they had abstained from gambling since completing the program. Increasingly, however, problem gambling scholars are moving away from a pure "abstinence" model to examine a broader spectrum of post-treatment behaviors, including reduced levels of gambling (and associated problems). As such, Table 4 (below) gets at perhaps a more telling statistic: the proportion of clients who indicate that they have reduced their gambling since their heaviest period.

On this item, the data are fairly compelling and dramatic:

Table 4: Gambling Reduction - Have you reduced your gambling since the period in which you gambled most heavily?
Database Code: nv51

Gambling Reduction	N	Percentage
Yes	75	97.4
No	2	2.6
Total	77	

Remarkably, *all but two of the survey participants indicated that they had reduced their gambling – a 97.4% "success rate" when measured this way*. This rate actually exceeds that which was recently found in the states of Nevada and Iowa, and provides compelling evidence that treatment is "working" in ways that are felt in the everyday lives of those who have gone through these programs.

The next tables tell us more about these reductions:

Table 5a: Gambling Frequency Reduction – Days per Week
Database Code: nv52

Frequency (Days/Week)	N	Percentage
1	7	10.0
2	9	12.9
3	10	14.3
4	11	15.7
5	9	12.9
6	9	12.9
7	15	21.4
Total	70	

Table 5a (above) provides another compelling finding: *more than one-fifth of those surveyed reduced their gambling from an every-single-day event (7 days a week) to zero days per week* -- with the rest of the sample fairly evenly distributed.

Table 5b: Gambling Amount Reduction – Hours per Episode
Database Code: nv53

Duration (Hours/Episode)	N	Percentage
0.1 – 4.9	15	22.4
5.0 – 9.9	27	40.3
10.0 – 14.9	14	20.9
15.0 – 19.9	5	7.5
20.0 – 24.0	1	1.5
24.0 +	5	7.5
Total	67	

Again, Table 5b (above) also reveals much about the nuances of these reductions: fully 77.7% of this sample saw reductions of *more than five hours per gambling episode.* Put another way, these individuals used to gamble for five hours or more at a time, but have since experienced dramatic changes in their gambling behaviors.

Table 5c: Gambling Amount Reduction – Dollars per Episode
Database Code: nv54

Amount (Dollars/Episode)	N	Percentage
$0	6	8.1
$1 - $99	0	0.0
$100 - $499	21	28.4
$500 - $999	19	25.7

$1,000 - $1,999	10	13.5
$2,000 - $4,999	13	17.6
$5,000 +	5	6.8
Total	74	

Meanwhile, Table 5c (above) shows us that many of these individuals were spending substantially fewer dollars during their gambling episodes, with 92% seeing reductions of $100 or more per episode. In other words, these gamblers used to spend more than $100 each time they went out gambling, but have since seen dramatic reductions in their gambling expenditures.

Finally, because we also wished to assess the impacts of "non-professional" treatment settings like Gamblers Anonymous and GamAnon, we asked these individuals about their experiences with these programs. As it turns out, experiences are mixed: 62.3% of the study participants indicated that they are not currently attending GA or GamAnon meetings, but a similar proportion (64.4%) said that they found these meetings to be helpful. While the lack of attendance could be attributable to any number of factors (including geography, or lack of convenient meetings), the positive feedback from those who do attend GA indicates that efforts might be directed at linking better with these resources.

Table 6: Do you currently attend Gamblers Anonymous or GamAnon meetings?
Database Code: nv49

Attendance	N	Percentage
Yes	29	37.7
No	48	62.3
Total	77	

Table 6b: Have you found Gamblers Anonymous or GamAnon meetings to be helpful?
Database Code: nv50

GA/GamAnon Helpful	N	Percentage
Yes	47	64.4
No	26	35.6
Total	73	

Qualitative Feedback

At the end of the survey, respondents were asked a series of open-ended questions, which allows respondents to respond in their own words – rather than in categories pre-determined by researchers. As a result, qualitative data can often provide nuances that quantitative data cannot. These items asked about specifically about the "most helpful" and "least helpful" components of treatment, and then provided respondents with an opportunity to add any other comments they had about their experiences.

In examining this data, two important and consistent themes emerged:

1) The client-counselor bond appears to be of profound importance – a finding that suggests that continued emphasis on training of counselors is vital, and
2) Access issues (from cost to geography) seem to particularly salient for some within this population – a finding that suggests that even more needs to be done to make treatment more geographically and financially accessible.

Counselor Relationship

When asked about what was most helpful in their treatment process, relatively few individuals pointed to specific clinical approaches (though some positively cited "homework assignments") – but many went into enthusiastic detail about their positive relationship with their counselor. It would seem that what is most memorable to many of these interviewees is not the specific treatment modality (which is not to say modalities are unimportant, of course), but rather the people behind them. This finding reinforces the need for strong training counselors – and specifically those who cater to problem gamblers (because as some noted, clinical expertise in problem gambling remains rare).

One respondent summed up the feelings of dozens by putting it this way: "*In the end I really think it's about the counselor. The counselor I had was great. He knew how to handle me.*" Others voiced similarly articulate compliments, saying that the most helpful

part was "*talking one to one with the counselor and (the counselor) knowing how bad I felt. I felt that he knew where I was coming from.*"

Many expressed relief: "*I could finally speak to somebody about the problems,*" while several cited the knowledge of their counselors, as this individual did: *"(most helpful was) just having someone who understood gambling addiction. Problem is, there are a lot of counselors who don't understand gambling addiction.*"

One memorable respondent gave an almost visceral response when asked about the most helpful part of the treatment experience: "*Ahhh, realizing that I wasn't alone.*"

The observation that this relationship is so vital was confirmed by those who placed this theme in the "least helpful" category as well. One respondent articulated this criticism: "*I didn't really bond with my counselor well. I thought she was... I thought she had not dealt with her issues yet.*" Another also focused negatively on the relationship – one that had not blossomed: "*I don't think the counselor was very in tune with me. He felt like he was in a hurry to see you and get you out.*"

Put simply, it is clear from listening to these individuals' own words that their relationships with their counselors are of central, salient importance to them.

Access

Several respondents indicated that they so appreciated the program, they wished that more people were able to access it. As one former client put it,

>It's something that I would highly recommend for anybody; it addressed so
>many areas in my life that I just was not comprehending and I really
>wasn't in control of and I came to understand that in order to control that
>one area I had to control other areas of my life physically and emotionally
>and I learned to do that. And it was nice because with the sliding fee scale

I was able to feel like I was contributing fee-wise and continue in treatment.

This comment eloquently covers a range of commonly-expressed themes: the effectiveness of treatment, its comprehensive nature, and the appreciation that the sliding fee structure provided support for those who needed it, but also made participants "feel like they were contributing."

Still others complained about the degree to which treatment is still not accessible to all: "*I live in rural Arizona. Unfortunately I'm around 60 miles from Phoenix, and it's almost that far to go to the second counselor. If you're a problem gambler you don't really have the money for gas, etc. and the problems of traffic.*" Of course, problem gamblers suffer from a range of problems – and it seems that for some, access to effective treatment remains one of them.

Overall

In reading through the qualitative comments, it becomes clear that the most common sentiment is one of profound gratitude for these programs:

It made my recovery. They couldn't do it for me but I knew I didn't have to do it alone.

I am so thrilled that it has been there, it has saved my life and my marriage.

For me, it was life saving literally. I don't think I would be here today if I did not enter that program.

I was suicidal, without her counseling I would not have been here. So I appreciate it very much. I am still struggling every day, but the program is wonderful. I really appreciate it. And now my goal is to help other people with same problem.

The program was truly awesome. I would recommend it to anyone and it saved my life. And I'm definitely not a gambler (anymore). I don't think about it, I don't crave it, it's completely removed from my life. (Treatment) improved other

areas of my life – it's an overall improvement of my life… other than (just) the gambling aspect. I would recommend the program to anyone.

*****

Concluding Thoughts

In conclusion, these direct and indirect measurements of client improvement provide strong evidence that treatment is working for these clients. We wish to re-emphasize that throughout these interviews, we heard that treatment is in fact a very human enterprise, as many respondents cited their very human counselors as their favorite part of their programs. Overall, these strong outcomes represent a genuine victory for those dedicated to helping problem gamblers turn their lives around in the state of Arizona.

We would also like to humbly note that this project interviewed a group of research subjects who almost uniformly felt grateful for their treatment – and for the "voice" they were provided through this research project. It is our hope that this research helps remind us of the importance of measuring – and seeking to improve – our efforts to reach these populations in the future.

Appendix A: Detailed Methodology and Literature Review

For years, one of the major challenges in the pathological gambling research area was a lack of consensus on the best method of evaluating the success of treatment programs. Recently, however, we have seen this oft-cited shortcoming addressed in an impressive fashion. In particular, two major developments have helped push this research field forward.

The first development was the devotion of a special 2005 issue of the *Journal of Gambling Studies* to this very topic. This special issue included a number of review articles in addition to primary research pieces written by several of the leading experts in the problem gambling research field. The second development was the "Banff Consensus," which developed out of an academic research conference in Alberta that convened key experts in the area (many of whom also participated in the *JGS* special issue). Both of these pioneering contributions inform this research in important ways.

The special 2005 issue of *JGS* highlights a number of important methodological challenges associated with evaluating the success of problem gambling treatment interventions. In the following section, we highlight the key methodological issues discussed in this special issue, and then we describe how they were addressed in this research.

- As Blaszczynski (2005) notes, high rates of attrition are quite common when attempting to follow up with problem gamblers. ***In our research, we seek to increase our response rates by contacting individuals at various times of the day, following up unsuccessful contacts a minimum of 12 times, contacting individuals during weekdays and on weekends, and clearly identifying ourselves as independent researchers conducting a confidential study.***

- As is the case with most addictive disorders, abstinence is the most common goal for those administering and receiving treatment for pathological gambling (Echeburua & Baez, 1994). In fact, in their review article, Echeburua and Fernandez-Montalvo go so far as to claim that "currently, there is no empirical support for the idea that responsible gambling can be a goal in the treatment of pathological gamblers" (2005, p. 21). ***Hence, in our research, we ask questions***

that directly target the amount of abstinence that research subjects have achieved at the time of the interview.

- Building upon the previous point, Gamblers Anonymous advocates an abstinence model. Petry (2005) also notes that preliminary evidence shows that Gamblers Anonymous (GA) attendance in conjunction with professional treatment is associated with higher success rates. ***Because of this preliminary evidence and the ubiquity of Gamblers Anonymous in Nevada, we seek to gather expanded data on the degree to which this was integrated into the treatment process.***

- As is always the case when researching pathological gambling, the complex contribution of co-morbid disorders needs to be addressed (National Research Council, 1999; Shaffer, Hall, & Vander Bilt 1999). As several researchers note (see., e.g., Blaszczynski, 2005; Nathan 2005), this issue is rarely engaged in problem gambling outcome research. ***To address this shortcoming, Blaszczynski suggests that studies include information on the co-morbid issues that the research subjects confront the socio-demographic backgrounds of the subjects, and the different forms of gambling that the subjects engaged in. All of these suggestions are integrated into this research.***

- The research team also wishes to be sensitive to the reality that problem gamblers are often involved in a variety of different professional and nonprofessional interventions. For instance, over time a problem gambler may be prescribed an antidepressant, asked to attend Gamblers Anonymous meetings, urged by their children to give up gambling, forced by a spouse to participate in marital counseling, admitted to a hospital after a suicide attempt, referred to a homeless service provider upon getting kicked out of the home, and so on. As el-Guebaly (2005) points out, any of these could contribute to the improvement in the well-being of the problem gambler. ***In our study, we address this important consideration by asking about a variety of other interventions that a pathological gambler might have engaged, including housing aid, financial services, medical assistance, homeless assistance, Veterans' assistance, Gamblers Anonymous, and a handful of other resources.***

- A reasonable question arises whenever researchers rely upon self-reported information: can we trust the participants? This concern is perhaps especially important when examining gambling data, which can be plagued by poor recall (Blaszczynski et al. 1997). However, the research that has been conducted in this area indicates that self-reports from gamblers who participate in treatment studies tend to agree reasonably well with reports obtained from family, friends, or other "collateral" reports (Echeburua *et al.* 1996, Hodgins & Makarchuk 2003), a finding that is also noted in the Banff Consensus article. ***In our research, we rely upon self-report data, an approach that is supported by previous research findings.***

Further enhancing our research-based knowledge in the field of problem gambling treatment outcomes research, the 2006 "Banff Consensus" article (published in the prestigious academic journal *Addiction* by Walker, et al.*)* convened leading researchers to provide recommendations based upon the best and most current knowledge on pathological gambling treatment evaluation.

The recommendations laid out in this article are as follows:

> **The Banff Consensus recommends the measurement of three key elements in evaluating the effectiveness of treatment interventions with pathological gambling. These three elements are: 1) reduction in gambling behaviors, 2) reduction in the problems caused by gambling behaviors, and 3) a determination that changes observed are a direct result of the therapy's hypothesized mode of action.**

Following this consensus, our research addresses all three of these important areas:

1) <u>Reduction in Gambling Behaviors</u>. As the Banff Consensus indicates, "any single measure of involvement is unlikely to capture all of the aspects of gambling relevant to gambling-related problems" (Walker *et al.*, 2006, p. 505). Hence, it is important to ask a series of questions about gambling behaviors to assess any changes

that have taken place. ***In this research, we follow the recommendations of the Banff Consensus by measuring changes that pertain to both time and money. In addition, this research examines both types of time-oriented changes that are recommended by the Banff Consensus: changes in <u>time spent gambling</u>, and changes in <u>time spent thinking about gambling</u>.***

2) <u>Reduction in the Problems Caused by Gambling Behaviors</u>. Research on the reduction of problems caused by gambling behaviors is relatively underdeveloped in the problem gambling field. As such, the Banff Consensus recommends that until the research literature arrives at a conclusion on a gold standard measure of the problems associated with gambling, researchers should "select an appropriate standardized measure from those currently available in reporting outcomes." ***The current research follows this recommendation, and after receiving input from the leading experts in state-sponsored problem gambling treatment evaluation, we have selected the MQR (short for <u>M</u>ental Health Statistics Improvement Program <u>Q</u>uality <u>R</u>eport) as a standardized measure.***

3) <u>Determination that Changes Observed Are a Direct Result of the Therapy's Hypothesized Mode of Action</u>. This somewhat wordy description can be simplified to a relatively straightforward research question: did the therapy work in the way that it claims to work? To illustrate, we would expect that therapies that target behavioral change should be able to demonstrate efficacy in that area as a direct result of the therapies offered. ***In our case, the research team will be careful to ask the research subjects whether certain behavioral and cognitive changes took place "as a direct result of services (they) received."***

Methodology

In the next sections, we describe the sampling, questionnaire, data collection, and analytical elements of this study.

Sample. The sample of interviewees was taken from lists of clients given to the Arizona Office of Problem Gambling by the treatment providers themselves. Treatment providers were asked to provide the research team with lists of *all* individuals who received problem gambling services – including those who did not complete treatment.

In addition, treatment providers were informed that they were to collect signed documents allowing for confidential follow-up research.

Questionnaire. For this project, we again partnered with Tim Christensen, chief treatment administrator for the state of Arizona's Office of Problem Gambling, and president of the Association of Problem Gambling Service Administrators (APGSA). Previous discussions with Mr. Christensen led the research team to implement an instrument developed by the Mental Health Statistics Improvement Program (MHSIP).

The MHSIP reflects the uniquely collaborative nature that is so often demanded in current-day research. This Program relied upon a coalition of an impressive array of stakeholder organizations tasked with improving existing performance measures, and developing a standardized series of questions that effectively measure mental health outcomes. The organizations that contributed to this instrument's development are listed in the table below.

American Managed Behavioral Healthcare Association	American College of Mental Health Administration
National Alliance for the Mentally Ill	National Mental Health Association
Federation of Families	National Association of State Mental Health Program Directors
National Association of State Mental Health Program Directors Research Institute	National Council of Community Behavioral Healthcare
National Association of Consumer/Survivor Mental Health Administrators	National Association of Mental Health Planning and Advisory Councils
State Mental Health Planners	Center for Mental Health Services
Recovery Measurement Group	Outcomes Roundtable for Children and Families

In addition to these groups, an expert review and feedback panel included representatives from a variety of accreditation organizations, listed in the table below.

National Committee on Quality Assurance	Joint Commission on Accreditation of Healthcare Organizations
Commission on Accreditation of Rehabilitation Facilities	Council on Accreditation
Council on Quality and Leadership	Federal Forum on Performance Measures
Experience of Care and Health Outcomes Survey	Human Services Research Institute

In sum, the instrument we propose to use in this project represents the cumulative and collaborative effort of an expert coalition of major mental health organizations whose expertise falls under the very sorts of areas that we seek to research in this project. Another important advantage of the MQR – one highlighted by the experts we consulted – is the fact that this instrument is publicly available and intended for the widest possible use in mental health settings. Already in use in Arizona (and Nebraska) for problem gambling program evaluation, it became clear to this research team that that the reasons for using questionnaire items were quite strong.

For more information on the overall purposes and design of the MQR, please visit:

http://www.mhsip.org/QualityRptandToolkit/MHSIPQualityReport2005.pdf

The final questionnaire used in this part of the project, then, represents a combination of items from the MQR, items reflecting the most recent suggestions from the peer-reviewed academic literature, items from the baseline data collection currently in use by all of the treatment providers in the study, and items suggested to the research team by members of the State of Nevada's Advisory Committee on Problem Gambling. All questionnaires were approved by the UNLV Office for the Protection of Human Subjects.

Data Collection. To further enhance response rates and consistent with suggestions from the literature (Toneatto, 2005), we provided, for each completed interview, a $25 gift card (non-redeemable for cash) participation incentive from a major retail outlet.

Telephone interviews were conducted by trained interviewers who have successfully completed the CITI Course in the Protection of Human Research Subjects, as mandated by the UNLV Office for the Protection of Human Subjects. The questionnaire was programmed into a computer-assisted telephone interview program, which allows for immediate input of data into a password-protected database accessible only to the authors of this report. This kind of direct-entry approach is widely recognized

as a best practice, as it ensures that data entry errors are avoided, and that privacy is respected.

Analysis. The principal analytic design is a two-dimensional analysis of the effects of time (i.e., changes observed between initial interviews and subsequent interviews). Non-parametric tests will be applied to categorical outcome variables of events and activities, and parametric tests will be applied to continuous measures of gambling behaviors. Analyses will allow for in-state comparisons of treatment approaches as well as bi-variate demographic cross-tabulations – helping determine, for instance, whether female subjects respond differently than male subjects to various treatment approaches.

As many have noted, a single treatment model may well neglect the varied characteristics that problem gamblers possess and present when showing up for treatment (Blaszczynski, 1999; Gonzalez-Ibanez et al., 2005; Toneatto, 2005). As such, we wish to note that results should be interpreted with a healthy respect for the diversity of treatment populations – as clinics that treat primarily homeless individuals, to cite but one illustration, might face different challenges than those who treat non-homeless populations.

Limitations

All research designs contain limitations that arise prior to, during, and/or after the (conducting) of the project, and this project is no exception. Even in the highly formulized and systematic world of pharmacological research on pathological gambling, methodological limitations abound (for overviews, see Hollander et al., 2005; Potenza 2005). In practice, thoughtful and thorough discussions of limitations help researchers build better projects in the future, and it is in this spirit that we discuss a handful of important issues that need to be considered when contemplating the meanings of this research.

For one thing, a limitation that plagues all evaluations of treatment seekers is the observation that "comparatively few pathological gamblers seek treatment… fewer still participate in treatment outcome studies" (Nathan, 2005). Because of this, it is important

to point out that these data should not be interpreted as necessarily representative of the broader population of pathological gamblers – some of whom choose not to seek treatment, and some of whom choose not to speak with researchers seeking to talk about their treatment.

As Shaffer et al. note in their study of treatment outcomes in an Iowa problem gambling treatment program, "examining statewide treatment programs is important because these clinical settings provide access to larger sample sizes and more diversity among treatment seekers. However, evaluating these systems is often a compromise between scientific rigor and clinical practicality" (2005, p. 71). Virtually all in the pathological gambling research field agree that the ideal format for this kind of research is one in which control groups (with individuals who do not receive any treatment at all) are examined and compared against those who do receive treatment (see, e.g., Blaszczynski, 2005; Walker, 2005). For many reasons (some of them ethical in nature), this ideal is not always achieved, but as Shaffer et al note, this does not mean that important lessons are impossible to learn in the absence of "pure science."

APPENDIX B: FOLLOW-UP QUESTIONNAIRE

Section 1.

Note: section 1 & 2 use the following answer scale:

    1 - Strongly Agree

    2 - Agree

    3 - Neutral

    4 - Disagree

    5 - Strongly Disagree

    9 - N/A

> *In order to provide the best possible problem gambling services, we need to know what you think about the services you received. Please indicate your agreement or disagreement with each of the following statements.*

1. I like the services that I received from this service provider.

2. I would recommend this agency to a friend or family member.

3. Services were available at times that were good for me.

4. I was able to get all the services I thought I needed.

5. When I called for an appointment with my counselor, I was scheduled within a reasonable time frame.

6. I felt comfortable sharing my problems with my counselor.

7. Staff encouraged me to take responsibility for how I live my life.

8. Staff were sensitive to my cultural background (race, religion, language, etc.)

9. The distance and travel time required to meet with my counselor was reasonable.

10. During my treatment program, I was encouraged to use Gamblers Anonymous and/or GamAnon on a regular basis.

11. During my treatment program, I attended Gamblers Anonymous and/or GamAnon on a regular basis.

12. The treatment services were provided at a cost that I could afford.

13. Group counseling was helpful.

14. Individual counseling was helpful.

15. Family counseling was helpful.

16. Overall, I was pleased with the results of my treatment program.

Section 2

In order to provide the best possible problem gambling services, we need to know what you think about the services you received and the results. We will be using the same 1 through 5 scale as before.

1. As a direct result of services I received, I deal more effectively with daily problems.

2. As a direct result of services I received, I am better able to control my life.

3. As a direct result of services I received, I am better able to deal with crisis.

4. As a direct result of services I received, I am getting along better with my family.

5. As a direct result of services I received, I do better in social situations.

6. As a direct result of services I received, I do better in school and/or work.

7. As a direct result of services I received, My housing situation has improved.

8. As a direct result of services I received, My symptoms are not bothering me as much.

9. As a direct result of services I received, My financial situation has improved.

10. As a direct result of services I received, I spend less time thinking about gambling.

11. As a direct result of services I received, I have minimized most of my problems related to gambling.

Section 3

We are now going to ask you a few more general questions about the treatment you have received

1. Were there any services that were not provided by the problem gambling treatment program that you would have liked to see provided?

2. Prior to treatment, were there other addictions that were problematic for you?

     Yes

     No

IF YES: What kind of addiction?

Alcohol	THC
Cocaine	Benzodiazepines
Opiates	Methamphetamines
Prescription Drugs	Sports Enhancement Drugs
Nicotine	Shopping
Sexual	Internet
Extreme Sports	Food
Other	

3. Are there addictions that are currently problematic for you?

     Yes

No

IF YES: What kind of addiction?

Alcohol	THC
Cocaine	Benzodiazepines
Opiates	Methamphetamines
Prescription Drugs	Sports Enhancement Drugs
Nicotine	Shopping
Sexual	Internet
Extreme Sports	Food
Other	

Section 4

We are now going to ask you a few questions about your gambling-related behaviors.

Remember that all of your answers are completely confidential, and that you may refuse

to answer any questions or withdraw your participation at any time.

1. While you were actively participating in the treatment program, did you gamble at all?

Yes

No

IF YES: How many times did you gamble while in the treatment program?

2. Since you completed the treatment program, have you gambled at all?

Yes

No

IF NO: Skip to section 5

IF YES: What kind of gambling game did you participate in?

Table – Cards	Table – Roulette
Table – Craps	Keno
Slot Machine	Video Poker
Sports Book	Internet
Bingo	Other:

3. After completing the treatment program, when did you first gamble?

Amount of Time | Days Months Years Unit of time

4. Currently, how frequently do you gamble?

Days Per week

5. Currently, how long is each gambling episode on average?

Hours Per Episode

6. Currently, how much money do you gamble during each gambling episode on average?

$

Section 5

ALL RESPONDENTS: Abstinence Section

1. As of today, how long have you been abstinent from gambling?

Amount of Time | Days Months Years Unit of time

2. Do you currently attend Gamblers Anonymous or GamAnon meetings?

Yes

No

3. Have you found Gamblers Anonymous or GamAnon meetings to be helpful?

Yes

No

4. Thinking back to the period of time when you gambled most heavily, have you reduced your gambling since this time?

Yes

No

IF YES:

5. How many days per week would you say you have reduced your gambling?

Number of days per week (e.g., before = 5 days/wk; now = 2 days/wk, so reduction is 3 days/wk)

6. How much have you reduced your gambling in terms of hours per gambling episode?

Estimated hours per episode (e.g., before = 5 hrs/episode; now = 2 hrs/episode, so reduction is 3 hrs/episode)

7. How much have you reduced your gambling in terms of the amount of money that you spend per gambling episode?

Estimated amount of money (e.g., "Before = $100/night and now = $0/nightl"; therefore reduction is $100/night)

Section 6

This final section allows you to express in your own words your feelings about this program.

1. What was the most helpful part of the program for you?

2. What was the least helpful part of the program for you?

3. Finally, we would like to provide you with the opportunity to add any comments that you may have about the treatment that you received.

REFERENCES AND RELEVANT READINGS

Abbott, M.W. & Volberg, R.A. (1996). The New Zealand National Survey of problem and pathological gambling. Journal of Gambling Studies, 12 (2), 143-160.

Bernhard, B.J., & Preston, F.W. (2004). "On the Shoulders of Merton: Potentially Sobering Consequences of Problem Gambling Policy." *American Behavioral Scientist* 47(11), 1395-1405.

Bernhard, B.J. (2007a). "The Voices of Vices: Sociological Perspectives on the DSM-IV Pathological Gambling Entry." *American Behavioral Scientist*. 51(1): 8-32.

Bernhard, B.J. (2007b). "On the Shoulders of Mills: A (Clinical) Sociological Imagination for Problem Gamblers?" *American Behavioral Scientist*. 51(1): 122-138.

Bernhard, B.J., Crossman, E., & Cross, C.L. (2007). *Evaluation of State-funded Problem Gambling Treatment Programs in Nevada.* University of Nevada Las Vegas, International Gaming Institute. Final Report.

Bernhard, B.J., LaBrie, R., & LaPlante, D. (2007). *Evaluation of a Brief Intervention Toolkit Design*. University of Nevada, Las Vegas, International Gaming Institute. Final Report for Department of Health and Human Services research grant to conduct experimental design-based evaluation research on problem gambling outcomes.

Blaszczynski, A. (1999). Is pathological gambling an impulse control, addictive, or obsessive compulsive disorder? *Annuario de Psycologia,* Universidad de Barcelona.

Blaszczynski, A. (2005) Conceptual and methodological issues in treatment outcome research. *Journal of Gambling Studies* 21, 5-11.

Blaszczynski, A.P., Dulao, V. & Lange, M. (1997) 'How much do you spend gambling?' Ambiguities in survey questionnaire items. *Journal of Gambling Studies*, 13, 237-252.

Cross, C.L., Bernhard, B.J., Rothweiler, A., Gulmatico-Mullin, M, & Janairo, A. (2007) *Research and Evaluation of Problem Gambling: Nevada.* Final Annual Report produced for the State of Nevada Health and Human Services.

El-Guebaly, N. (2005) Pathological gambling, comorbidities and treatment outcome: is the bronze standard enough? *Journal of Gambling Studies*, 21, 43-49.

Gerstein, D.R., Volberg, R.A., Toce, M.T., Harwood, H., Palmer, A., Johnson, R., Larison, C., Chuchro, L., Buie, T., Engelman, L. & Hill, M.A. (1999). Gambling impact and behavior study: Report to the National Gambling Impact Study Commission. Chicago, IL: National Opinion Research Center at the University of Chicago. Available at: http://cloud9.norc.uchicago.edu/dlib/ngis.htm

Gonzalez-Ibanez, A., Rosel, R., & Moreno, I. (2005) Evaluation and treatment of pathological gambling. *Journal of Gambling Studies*, 21, 35-42.

Grant, J.E. & Potenza, M.N. (2004). *Pathological Gambling: A Clinical Guide to Treatment.* Washington, DC: American Psychiatric Publishing.

Hodgins, D.C. (2005) Implications of a brief intervention trial for problem gambling for future outcome research. *Journal of Gambling Studies* 21, 13-19.

Hollander, E., Sood, E., Pallanti, S., Baldini-Rossi, N., & Baker, B. (2005). Pharmacological treatments of pathological gambling. *Journal of Gambling Studies*, 21, 101-110.

Klingemann, H., Sobell, L., Barker, J., Blomqvist, J., Cloud, W., Ellingstad, T. et al. (2001). *Promoting self-change from problem substance use. Practical implications for policy, prevention, and treatment.* Dordrecht, The Netherlands: Kluwer.

Korn, D.A. & Shaffer, H. (1999). Gambling and the health of the public: Adopting a public health perspective. *Journal of Gambling Studies, 15*(4), 289-365.

Leblond, J., Ladouceur, R., & Blaszczynski, A. (2003). Which pathological gamblers will complete treatment? A closer look at impulsivity. *British Journal of Clinical Psychology*, 42, 205-209.

Ladouceur, R. & Shaffer, H.J. (2005) Treating problem gamblers: working towards empirically supported treatment. *Journal of Gambling Studies*, 21, 1-4.

Nathan, P. (2005). Methodological problems in research on treatments for pathological gambling. *Journal of Gambling Studies*, 21, 111-116.

National Research Council (1999). *Pathological gambling: A critical review.* Washington, DC: National Academy Press.

Potenza, M. (2005). Advancing treatment strategies for pathological gambling. *Journal of Gambling Studies*, 21, 93-100.

Shaffer, H.J., Hall, M.N., & Vander Bilt, J. (1999). Estimating the prevalence of disordered gambling behavior in the United States and Canada: a research synthesis. *American Journal of Public Health*, 89, 1369-1376.

Shaffer, H.J., LaBrie, R.A., LaPlante, D.A., Kidman, R.C., & Donato, A.N. (2005) The Iowa gambling treatment program: treatment outcomes for a follow-up sample. *Journal of Gambling Studies*, 21, 61-73.

Toneatto, T. (2005). A perspective on problem gambling treatment: issues and challenges. *Journal of Gambling Studies*, 21, 75-80.

Toneatto, T. & Ladouceur, R. (2003) Treatment of pathological gambling: a critical review of the literature. *Psychology of Addictive Behaviors*, 17, 284-292.

Volberg, R.A. (2001). When the Chips Are Down: Problem Gambling in America. New York: Century Foundation.

Volberg, R.A. (2002). *Gambling and Problem Gambling in Nevada.* Report to the Nevada Department of Human Resources. Carson City, NV: Department of Human Resources. Available at http://www.hr.state.nv.us/.

Volberg, R.A. (2003). Has there been a 'feminization' of gambling and problem gambling in the United States? Electronic Journal of Gambling Issues Issue 8: Feature Article. Available at: http://www.camh.net/egambling/.

Walker, M. (2005). Problems in measuring the effectiveness of cognitive therapy for pathological gambling. *Journal of Gambling Studies*, 21, 81-92.

Walker, M., Toneatto, T., Potenza, M., Petry, N., Ladouceur, R., Hodgins, D.C., el-Guebaly, N., Echeburua, E., & Blaszczynski, A. (2006). A framework for reporting outcomes in problem gambling treatment research: The Banff, Alberta consensus. *Addiction,* 101, 504-511.