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Costs and Treatment of Pathological Gambling

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ABSTRACT: The nature and social costs of pathological gambling are reviewed. Costs of gambling in terms of indebtedness for the gambler, costs for family members, costs for the workplace, illegal activities, and physical and psychological costs are examined. The interaction of pathological gambling with other disorders, including substance abuse, anxiety, and depression, are noted. Methods of screening pathological gamblers are summarized. Different treatment approaches and their effectiveness are reviewed, including Gamblers Anonymous and Gam-Anon, psychodynamic treatment, behavioral and cognitive approaches, and treatment based on an addiction model. Treatment for spouses is discussed. Gambling expenditure data are then examined to determine what portion of total expenditures is accounted for by problem gamblers.

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EMBEZZLEMENT, family and job disruption, and other consequences of problem gambling have emerged as themes in society repeatedly over time. In the United States, while corruption played a dominant role in prohibition efforts, reformers in the nineteenth century rallied against the destructive impact of gambling on families, careers, and society in general. Their efforts eventually led to the suppression of gambling in the United States both in the 1830s and around the turn of the century (Chafetz 1960; Clodtfelter and Cook 1989). More recently, the National Coalition Against Legalized Gambling has pointed to problem gambling in an effort to stop the further spread of gambling legalization in the United States. Clearly, problem and pathological gambling have taken the front stage in the continuing debate over legalized gambling.

While reformers are having their day, national organizations (and their state or provincial affiliates) that act as advocates for problem gamblers and their families are having some impact as well. Affiliates of the National Council on Problem Gambling in the United States and the Canadian Foundation on Compulsive Gambling have been pushing for state-funded and provincially funded help lines, the education of treatment professionals, treatment for problem gamblers, awareness programs, and research into problem gambling.

A NOTE ON TERMS

The term "problem gambler" has been used in two ways: first, for those who have less serious gambling problems than pathological gamblers and, second, as an all-encompassing term to include both problem gamblers and pathological gamblers. This convention has its parallel in the alcohol and drug field in discussions of problem drinkers and substance abusers. Not all problem drinkers are alcoholics, and not all substance abusers are drug addicts. However, all alcoholics are problem drinkers, and all drug addicts are substance abusers. Consequently, with respect to the term "problem gambler," it is recognized that not all problem gamblers are pathological gamblers, but all pathological gamblers are problem gamblers.

Typically, the term "compulsive gambler" is used by the general public while the term "pathological gambler" is used by treatment professionals. This is because professionals reserve the term "compulsion" for behaviors like excessive hand washing and lock checking. Pathological gambling is classified as an "impulse control disorder" rather than a compulsion. The American Psychiatric Association (1994) uses 10 criteria to define pathological gambling: (1) preoccupation with gambling; (2) a need to increase the excitement produced by gambling; (3) restlessness or irritability when unable to gamble; (4) repeated unsuccessful efforts to control, cut back, or stop gambling; (5) gambling in an effort to get back money lost during gambling on a previous day; (6) gambling in an effort to escape a dysphoric mood; (7) lying to cover up gambling; (8) jeopardizing a significant job, relationship, or educational opportunity by gambling;

(9) engaging in illegal activity to finance gambling; and (10) going to someone else to relieve a desperate financial situation produced by gambling. An individual who fulfills 5 of the 10 criteria is diagnosed as a pathological gambler. Problem gamblers would satisfy only two, three, or four of these criteria. Researchers are currently investigating whether there should be a cutoff point for problematic gambling, as there is for pathological gambling. This article will use the term "problem gambling" to refer to the less serious condition.

EPIDEMIOLOGY

In 1974, 61 percent of the American population had gambled in the past year, and 71 percent had gambled in their lifetime (Kallick et al. 1979); by 1988, these figures were 71 percent for the past year and 81 percent lifetime (Hugick 1989). More recent estimates from different states place the lifetime prevalence of gambling at between 74 percent in Georgia and 91 percent in Washington State (Volberg 1993, 1995a). The combined rate of problem and pathological gambling in the 17 states where surveys have been conducted ranges between 1.7 and 7.3 percent (Volberg 1996a; Wallisch 1996). These studies show that the prevalence of problem and pathological gambling has increased in states where the availability of gambling has increased as well (Volberg 1994, 1996b). They also show that problem and pathological gambling are more common among males, youths, and minority populations.

SOCIAL AND ECONOMIC COSTS OF PATHOLOGICAL GAMBLING

From 18 to 28 percent of males and 8 percent of females in treatment and Gamblers Anonymous (GA) have declared bankruptcy (Lesieur and Anderson 1995; Thompson, Gazel, and Rickman 1996). While most pathological gamblers do not declare bankruptcy, the amount of gambling-related debt (excluding auto loans, mortgages, and other so-called legitimate debt) found by some studies is staggering. For GA members surveyed recently, this ranged from an average of $38,664 in Wisconsin (versus a median of $20,000) (Thompson, Gazel, and Rickman 1996) to an average of $113,640 in Illinois (versus a median of $18,000) (Lesieur and Anderson 1995). Female GA members have a lower level of gambling-related debt, averaging $24,883 (Lesieur and Anderson 1995). This is only the debt at entry into Gamblers Anonymous and does not include the debt they may have paid off previously. Lifetime gambling-related debts in Wisconsin averaged $61,000 ($25,000 median) and $215,406 ($45,000 median) in Illinois. Losses such as these inevitably place enormous stress on the gambler's family, work, and emotional life.

The pathological gambler's financial burden is chiefly borne by the family. Added debt may mean that fewer family expenditures are possible. The mortgage, rent, gas, electricity, telephone, and other bills may be late or overdue. In extreme cases, utilities are shut off, automobiles or furniture is repossessed, household items are sold, and there is the possibility of being evicted from an apart-

ment or experiencing a foreclosure on the mortgage. Added to this are patterns of lies and deception by the gambler; such patterns have been repeatedly documented in studies of gamblers and their families (Berman and Siegel 1992).

Spouses of pathological gamblers are harassed by bill collectors, experience insomnia related to gambling-produced difficulties, and have a wide range of stress-related physical problems, including chronic or severe headaches, intestinal disorders, asthma, and depression. They also have suicide attempt rates that are three times higher than those reported by the general population (Lorenz and Yaffee 1988).

When compared with other groups of addicts (alcoholics and chemically dependent individuals), the marriages of pathological gamblers are not that different; however, the gamblers' families are less cohesive and less independent than those of control subjects (Ahrons 1989; Ciarrocchi and Hohnmann 1989). Other researchers have found that gamblers' families function more poorly than the general population with respect to problem solving, communication, family roles and responsibilities, affective involvement, and general functioning (Epstein 1992). It is no wonder, then, that 26 to 30 percent of GA members have gambling-related divorces or separations (Lesieur and Anderson 1995; Thompson, Gazel, and Rickman 1996).

At work, pathological gamblers experience a range of problems that depend on whether they are self-employed, employed in supervised jobs, or employed in unsupervised jobs (Lesieur 1984, 1988). The lower the level of job supervision, the greater the chance that gamblers will exploit the time and finances the job possesses. They come in late after gambling, leave early to gamble, and use extended lunch hours and break time; they take sick days off for gambling and otherwise use available work time to gamble. Lateness and absences from work are produced by extended card games and casino ventures; lunch hours are lengthened to accommodate hours at off-track betting parlors. Between 69 and 76 percent of pathological gamblers state they have missed time from work due to gambling (Ladouceur, Boisvert, Pepin et al. 1994; Meyer, Fabian, and Peter 1995; Lesieur and Anderson 1995). Even while at work, the gambler's mind may not be on the job because of heavy losses, indebtedness, and intense efforts to get even; irritability and moodiness are added consequences.

Many gamble on company time; the activities include card playing, betting on numbers, and acting as a runner, writer, or bookmaker for a gambling operation at work. Fellow employees are borrowed from; advances are taken on paychecks; paychecks are garnisheed; and, as a last resort, the employee may steal from work or engage in illegal activities on company time. Gamblers who own businesses may exploit the business and drain its assets as well as those of suppliers and other creditors. Between 21 and 36 percent of gamblers in treatment or GA have lost a job due to their gambling (Ladouceur, Boisvert, Pepin et al. 1994; Meyer, Fabian, and Peter 1995; Lesieur and

Anderson 1995; Thompson, Gazel, and Rickman 1996).

Pathological gambling also results in illegal activities (Lesieur 1984). Once pathological gamblers exhaust savings, rent money, credit cards, banks, credit unions, loan sharks, and other resources, they resort to quasi-illegal activities like loan fraud (borrowing under false pretenses), forging their spouse's signature on loans, and bouncing checks. Some become bookmakers or work in the illegal gambling world to finance their gambling. Further on they will embezzle from work, forge checks, engage in tax evasion and fraud, or otherwise engage in white-collar illegal activity.

The stress of gambling, the stress of financial pressures, the stress of family, and the stress of work combine to produce anxiety, depression, and cognitive distortions in the mind of the pathological gambler (Blaszczynski and McConaghy 1992). The stresses impair judgment and decision-making processes and lead to crime. The Illinois survey (Lesieur and Anderson 1995) found that the average amount stolen for 184 GA members was $60,700; the median amount stolen was $500, and 56 percent admitted stealing. The average in Wisconsin, excluding one person who took $8 million, was $5738; 46 percent admitted stealing (Thompson, Gazel, and Rickman 1996).

Given the financial, marital, occupational, and legal problems, it is not surprising that in the later stages of their gambling, pathological gamblers experience depression, insomnia, intestinal disorders, anxiety attacks, cardiac problems, high blood pressure, migraines, and other stress-related problems (Lorenz and Yaffee 1986). Two studies report on medical examinations of pathological gamblers. Russo (n.d.), in a study of 217 successive admissions to the inpatient gambling treatment program at the Brecksville, Ohio, Veterans Administration Medical Center, uncovered 39 percent with major cardiovascular disorders; 26 percent with allergies; 17 percent with respiratory problems; 16 percent with nerve and sensory system disorders; 15 percent with musculoskeletal disorders; 43 percent with serious oral or dental disease; and 30 percent who were obese. In another systematic investigation, Bergh and Kuhlhorn (1994) uncovered fatigue, colds and flu, migraine headaches, gastric pain, nausea, and other physical problems in a study of 41 Swedish pathological gamblers.

GAMBLING AND OTHER DISORDERS

Pathological gambling overlaps with other disorders. Major depressive disorder is the one most commonly reported, with between 70 and 76 percent of pathological gamblers being given this diagnosis on a lifetime basis (McCormick et al. 1984; Specker et al. 1996). High rates of hypomanic and bipolar disorder have also been found in some studies (McCormick et al. 1984; McElroy et al. 1996) but not in others (Gonzales Ibanez et al. 1995). There is some evidence that rates of depression are lower among pathological gamblers in the general population than in treatment samples but still higher than among controls (Becona,

Lorenzo, and Fuentes 1996) and that it declines following treatment for pathological gambling (Taber et al. 1987). Panic and anxiety disorders have also been reported as occurring more commonly among pathological gamblers than in the general population (Blaszczynski and McConaghy 1989; Gonzales Ibanez et al. 1995).

In light of the high rates of anxiety and depression, it is no wonder that pathological gamblers have very high rates of suicidal ideation. Between 12 and 18 percent of GA members have made potentially lethal attempts at suicide; 45-49 percent have made plans to kill themselves; 48-70 percent have contemplated suicide; and 80 percent state they have "wanted to die" (Lesieur and Anderson 1995; Thompson, Gazel, and Rickman 1996).

Excessive substance use and chemical dependency are also common among pathological gamblers, with 47-52 percent of pathological gamblers receiving a substance abuse diagnosis (Lesieur 1988; Ramirez et al. 1983). Conversely, between 9 and 14 percent of substance-abusing populations have been diagnosed as pathological gamblers (Lesieur, Blume, and Zoppa 1986; Lesieur and Heineman 1988). Studies of methadone populations have found similar results, with 9-20 percent diagnosed as pathological gamblers (Feigelman et al. 1995; Spunt et al. 1996; Shepherd 1996). Males were more likely to have gambling problems than females.

Antisocial personality disorder (Blaszczynski, McConaghy, and Frankova 1989; Lesieur 1987) and narcissistic personality disorder (Taber et al. 1986) have also been uncovered among pathological gamblers.

GAMBLERS ANONYMOUS AND GAM-ANON

The most commonly used approach to deal with pathological gambling is that used by Gamblers Anonymous, namely, a 12-step program based on the principles of Alcoholics Anonymous. GA is a self-help fellowship of men and women who get together once a week or more; depending on the area of the country, the closest meeting may be over a hundred miles away, necessitating less frequent meetings, or there may be several meetings a day, seven days a week. Like Alcoholics Anonymous, GA incorporates the abstinence-disease model. Compulsive gambling is perceived to be a disease that cannot be cured, only arrested. Because of this, abstinence is the only method of dealing with it. Conversations of individuals in GA with proponents of controlled gambling (for example, Rosecrance 1988; Blaszczynski, McConaghy, and Frankova 1991) often lead to almost unresolvable ideological division.

GA works through the identification of the newcomer with a reference group in a spiritual journey where members undergo a relabeling of their self-concept from "evil" or "stupid" to "sick." The group process facilitates the undercutting of denial of the seriousness of the problem as members hear others tell their story in a nonjudgmental way. In this fashion, they see themselves in the stories of the other members. This process is eased as the members come to accept the construction that GA puts

on their life. The actions they took were not evil; they were sick instead. This makes it easier for the newcomer to live with him- or herself.

Livingston (1974) notes that the following process takes place for newcomers to GA. First, a crisis precipitates entry into GA. The first meeting precipitates relief as newcomers see that they are not alone. Others are nonjudgmental because they have had the same problem; this enables the newcomers to be open and honest without losing status. GA becomes their reference group; members say they "identify"—they see themselves in other people's stories. Eventually, personal biography is recast to fit the GA self-concept.

While many who come into GA adopt the GA self-concept, the relapse rate tends to be quite high. In a study of 232 attendees of GA meetings, Stewart and Brown (1988) found that total abstinence from gambling was maintained by only 8 percent one year after their first attendance and by 7 percent at two years. In studying dropouts from GA, Brown (1987a, 1987b) found that dropouts tended to have a lower debt level and perceived that they had less serious problems than continuers (consequently, they had failed to "identify"); they also found themselves in personality clashes with the members who did attend; additionally, they felt that GA was too stringent in its total-abstinence policy. In spite of this, dropouts had respect for GA as an organization.

Gam-Anon is a self-help group for spouses of pathological gamblers. Gam-Anon is a program designed for spouses and significant others of Gamblers Anonymous (GA) members and is closely modeled after Al-Anon, an offshoot of Alcoholics Anonymous. While no assessments of Gam-Anon have been conducted, attendees report relief and help through the groups.

ASSESSMENT AND SCREENING

In addition to the American Psychiatric Association's 10 criteria (1994), the South Oaks Gambling Screen (SOGS) (Lesieur and Blume 1987) has been used to screen adults for gambling problems. It is a valid, reliable measure of pathological gambling that has been used in a wide variety of settings (Lesieur and Blume 1993; Shepherd 1996). Shepherd (1996) notes problems in the use of the SOGS in clinical settings and offers suggestions for overcoming these obstacles. Staff noncompliance in screening, staff denial that gambling can be problematic, and their belief that screening intrudes into the therapeutic relationship are paramount issues. Shepherd suggests in-service training of staff, for example, educating substance abuse counselors about the high risk of relapse by chemically dependent patients who gamble. There is also a need to get staff to recognize the manipulativeness and deception of pathological gamblers and get them to acknowledge that the SOGS is an effective means of uncovering gambling problems. Additionally, staff must become sensitive to inconsistent responses on the SOGS as an indicator of problematic gambling. Also, they need to develop a healthy skepticism regarding a client's pro-

testations that he or she is a "professional gambler" or "not really a gambler." In these cases, sub-threshold scores may indicate more serious problems than evident at first glance.

There is no currently available screen for problematic gambling that does not meet the pathological-gambling threshold. One attempt has been made to classify problem gambling into six problem areas using questions added to the SOGS (Spunt et al. 1995). The six problem areas are loss of control, emotional problems, family problems, job or school problems, financial problems, and illegal activity.

PSYCHODYNAMIC AND PHARMACOLOGICAL TREATMENT

Historically, the first treatment for pathological gambling was done by the psychoanalysts. This literature is reviewed by Rosenthal (1987). Much of this literature centers around narcissism, masochism, and omnipotence. While some research supports the existence of low ego strength and narcissism (Livingston 1974; Taber et al. 1986), the data on masochism were challenged by Lesieur and Custer (1984), while that on omnipotence appears to be limited. Psychodynamic therapists, beginning with Freud, have pointed to the similarities between alcohol, drug, and gambling addiction. Aside from case studies, only one assessment of the treatment effectiveness of psychodynamic therapy has been conducted. Of the 60 patients in this assessment who entered therapy, Bergler ([1957] 1970) claimed that 45 were either cured of their gambling or were cured of all neurotic symptoms including gambling. However, there is some confusion concerning how his data are presented (Walker 1993).

Biological or physiological approaches are not commonly used for treating pathological gamblers. Moskowitz (1980) used lithium carbonate with three gamblers; Hollander et al. (1992) used clomipramine with one gambler; and Saiz (1992) reported an ongoing clinical trial of fluoximine (an antidepressant with powerful effects on the serotonimic transmission used for treating obsessive-compulsion problems) as a treatment of pathological gambling. The overlap between gambling and affective disorders makes these possible treatments seem logical. However, the sample sizes in these studies are too small to warrant optimism.

BEHAVIORAL TREATMENT OF PROBLEM GAMBLING

Behavioral approaches to the treatment of problem gambling can be grouped into four major categories: aversion therapy, behavioral counseling, desensitization, and cognitive-behavioral therapy. Aversive conditioning, while successful in individual case reports, has not fared that well at long-term follow-up. In a review of seven studies involving 53 cases where aversive conditioning was used, Walker (1993) found that 12 were abstaining and 9 others had improved at follow-up. Follow-up ranged between six months and three years.

Contingency contracting and behavioral counseling are sometimes

combined with other treatments to produce success. However, the studies that use these approaches involve few cases. For example, Dickerson and Weeks (1979) created a series of contracts that transferred control of cash to an off-track bettor's wife and built up a series of incompatible behaviors while allowing the gambler to continue gambling at a reduced level (only one wager per week). This was successful. According to the authors, "The reinforcement provided by the controlled betting may have helped maintain the gambler's work on the early contracts until the locus of reinforcement began to shift out of the therapy session, to involve his children as he redeveloped his relationship with them" (Dickerson and Weeks 1979, 140).

McConaghy, Blaszczynski, and colleagues (McConaghy et al. 1983, 1988; Blaszczynski and McConaghy 1993) conducted a series of trials that compared desensitization with other forms of behavioral therapy, both classical and instrumentally based. There were three sets of studies in all; imaginal desensitization was compared with aversion therapy, relaxation therapy, and in vivo exposure. They found that imaginal desensitization and relaxation therapy were equally successful, faring better than either aversion or in vivo exposure. Imaginal desensitization therapy involved relaxation followed by imagining a hierarchy of gambling-related scenes where a person is about to gamble but decides to leave instead. The imaginal relaxation differed from the imaginal desensitization in that relaxation alone was taught rather than pairing it with relaxation in a gambling setting. They found that imaginal relaxation was not inferior to imaginal desensitization treatment, supporting the idea that "manipulation of an organismic variable—the gambler's level of arousal—rather than a stimulus variable, is sufficient to bring about an equivalent therapeutic response" (McConaghy et al. 1988, 382).

Modern behaviorists recognize that cognitive factors play an important role in gambling, and the most recent theorizing emphasizes the merger of cognitive and behavioral counseling procedures (for example, Blaszczynski and Silove 1995; Walker 1992). Walker (1992), for example, while recognizing the utility of imaginal desensitization as a therapeutic procedure, notes that regular gamblers hold core beliefs and engage in irrational thinking, suffer under the illusion of control, make biased evaluations of outcome, and become entrapped in gambling as a solution to their financial problems. A solid core of research (reviewed by Walker [1992]) is developed in support of the cognitive view of gambling behavior.

Utilizing a cognitive-behavioral orientation, Ladouceur and colleagues treated both adolescent (Ladouceur, Boisvert, and Dumont 1994) and adult (Bujold et al. 1994) pathological gamblers. They combined self-monitoring with cognitive interventions (which addressed erroneous thinking), problem-solving skills that emphasized the availability of alternative reinforcers, and relapse-prevention training. None of the sub-

jects was gambling at 6- and 9-month follow-up. This procedure holds considerable promise.

Current research supports the view that problem gambling is precipitated by early learning that is influenced by arousal, desire to alter mood, and cognitive beliefs regarding gambling. Consequently, Blaszczynski and Silove (1995) recommend the use of imaginal desensitization to reduce the drive to gamble. This should be followed by the identification of cognitive distortions and cognitive therapy. After therapy, relapse-prevention strategies as proposed by Marlatt and Gordon (1985) are recommended. There is the added recognition, however, that even a cognitive-behaviorally oriented treatment program is insufficient to deal with the problem. There is a movement toward a more eclectic approach. Blaszczynski and Silove (1995) add other components to their suggested treatment model: antidepressant medication for clients with dysphoric mood, marital therapy where trust has been impaired in the family, addiction counseling for the problem gamblers who also use chemicals to excess, and attendance at GA meetings.

ADDICTION-BASED TREATMENT

In the United States in particular, addiction-based models of treatment that are more closely allied with the medical model have been examined. Evaluations of inpatient programs using an abstinence-based model, attendance at GA meetings, group psychotherapy, and addictions and health education have shown improvement in functioning (Russo et al. 1984; Taber et al. 1987; Lesieur and Blume 1991). There were statistically significant declines in number of days spent gambling, money spent, and seven of eight subscales on the Psychiatric Status Schedule in a study of treated veterans (Taber et al. 1987). Those who did not gamble showed improved financial and interpersonal functioning and lowered depression (Russo et al. 1984). A study of a private psychiatric facility (Lesieur and Blume 1991) used a modification of the Addiction Severity Index to measure outcome and found significant improvements in the alcohol, drug, legal, family/social, and psychological functioning subscales as well as a gambling subscale generated for the study (Lesieur and Blume 1992). Ninety-four percent showed lower levels of gambling, with 60 percent being abstinent from gambling at 6-month follow-up. McCormick and Taber (1988) found that severity of gambling and attributional style (attributing negative events to internal, global, and stable causes) were predictive of severity of gambling at 6-month follow-up after treatment.

Evaluations of state-funded outpatient treatment programs in the United States have also shown improvements in functioning. A study of 658 gamblers treated in various programs in Minnesota (Stinchfield and Winters 1996) found significant declines in gambling with 43 and 42 percent showing no gambling and an additional 29 and 24 percent showing less than monthly gambling at 6- and 12-month follow-up, respectively. Treatment completers (n = 209)

showed statistically significant drops in South Oaks Gambling Screen scores, highest level of gambling, 6-month gambling debts, friends who gamble, psychosocial problems, and gambling-related arrests. Even those who initiated treatment without completing it showed improvement in virtually all areas investigated.

TREATMENT FOR SPOUSES

While there is no literature on the treatment of husbands, Darvas (1981) was one of the first to discuss treatment of the wives of pathological gamblers. Initially spouses are given support and are encouraged to ventilate. At the same time, they are directed to Gam-Anon. Only after an educational series and stabilization is conjoint therapy considered. Treatment professionals wait for gambling to stop and for limits to have been set before conjoint sessions commence. Treatment goals include a cessation of bailouts, an increase in the wife's ability to resolve conflicts, improved self-image, assertiveness, improved communication skills, and improved autonomy.

Heineman (1987) would agree with Darvas on a delay of conjoint therapy sessions. She states that the wives of pathological gamblers come into treatment with too much anger and guilt. Wives are angry over debts and other (possibly legal) problems and feel some guilt over not having been able to stop their husbands from gambling. Heineman mentions a six-week educational series, modeled after a similar alcoholism educational series that focuses on the disease concept. Once the educational series is over, she implies that conjoint therapy can begin.

Not all therapists are in agreement over the need to delay conjoint therapy sessions. Steinberg (1993) believes that conjoint therapy may be necessary to manage crises and prevent further deterioration in the relationship. He suggests that the partner is frequently codependently involved in the addiction. As a consequence, it is important to view the couple as intermeshed. He recommends that conjoint sessions be alternated with individual therapy sessions or that individual sessions be used to build trust and be followed by conjoint sessions. In any event, group psychotherapy may prove useful; Steinberg suggests following either a psycho-educational or a dynamic group format.

AN ASSESSMENT OF GAMBLING EXPENDITURE DATA

One element in the argument over the continued legalization of gambling has been the question of what percentage of gambling revenues comes from pathological gamblers. In order to address this issue, data from four states and three Canadian provinces were examined in the following way:

1. Surveys were conducted in three Canadian provinces and four states where both expenditure data and data on problem gambling were collected and reported (Wynne Resources 1994; Gemini Research and Angus Reid Group 1994; Baseline Market Research 1996; Volberg 1993, 1995b, 1995c, 1996a).

2. Questions were asked on each survey about whether the person had gambled in the past year and how much money he or she typically spent per month on each of several specified activities (see Table 1).

3. There were questions in each survey asking about problem and pathological gambling using the South Oaks Gambling Screen. Those scoring three or more on this screen were classified as "problem gamblers" for the purpose of the survey.

4. The total amount of money spent in a typical month by all respondents was added up for each form of gambling and for all forms together.

5. The total amount of money spent in a typical month by problem gamblers was added up for each form of gambling and for all forms together.

6. The problem-gambler totals were divided by the grand totals to get the percentage of the total that was spent by problem gamblers.

Putting all forms of gambling together, the percentage of the total money that was spent by problem gamblers ranged from a low of 22.6 percent in British Columbia to 41.2 percent in Louisiana. The average for the states and provinces examined was 30.4 percent. This percentage varied tremendously by game.

We can divide the games into three types: democratic, moderate, and problem-gambler-skewed games. Democratic forms of gambling involved less than 20 percent of expenditures from problem gamblers. Included were raffles, sport bets with friends, lotto, and slots (see Table 1).

Moderate forms of gambling involve 20-33 percent of expenditures coming from problem gamblers. Pull tabs (British Columbia only), instant or scratch lottery tickets, on-track wagering in some states and provinces, and sports action (in British Columbia) are moderate forms of gambling.

Problem-gambler-skewed forms of gambling involve more than 33 percent of expenditures coming from problem gamblers. Casino table games, video machines, horses (especially off-track betting), sports with bookies, pull tabs, and bingo are included.

Using the foregoing framework, we might start to rethink the problematic nature of different forms of gambling. Some, like raffles and lotto, are so widespread and democratic that problem gamblers are not paying an extraordinary share of the voluntary tax. While there are people who get into problems with these games (notably pull tabs), we need to be especially concerned about the problem-gambler-skewed forms like video games, casinos, horses, and, surprisingly, bingo.

When a state decides to shift from lotto to instant or scratch lottery tickets to video machines as a revenue-raising measure, it is taking a greater and greater percentage of money from problem gamblers. It is not unreasonable to request, then, that the state fund help lines, treatment, counselor education, public awareness, research, and other measures to help problem and pathological gamblers.

TABLE 1

PERCENTAGE OF EXPENDITURES BY PROBLEM GAMBLERS FOR SELECTED FORMS OF GAMBLING BY STATE OR PROVINCE

	Alberta	British Columbia	Nova Scotia	Washington	Louisiana	Iowa	New York
Lotto	11.3 (lotto) 19.3 (instant)	11.9 (lotto) 14.3 (scratch)	6.2 (lotto) 22.7 (scratch)	24.2 (daily game)	17.6 (all lotto games)	24.4 (instant)	21.9 (lotto) 36 (quick draw)
Pari-mutuel (horses)	54.2 (on- and off-track)	29.5 (on-track)	—	25.9	52.7 (on-track) 84.9 (off-track)	48.4	50.0
Casino	37.2 (local) 34.4 (cards or dice)	26.7 (resort) 33.1 (table)	48.7	55.0 (cards or dice)	—	38.4 (table)	41.4
Slots	19.0	—	8.9	—	—	16.1	—
Video machine	46.9	—	50.8	23.9	37.8	—	74.6
Bingo	43.6	37.3	—	44.6	—	—	39.5
Sports	19.0 (friends or coworkers)	21.7 (sports) 19.7 (friends) 15.2 (pools)	—	18.9 (pools) 82.7 (bookies)	62.6	43.9	50.0
Pull tabs	45.1	20.9	—	35.2	—	—	—
Raffles	10.5	11.1	—	—	—	—	—
All games	32.3	22.6	26.4	24.7	41.2	26.8	39.1

SOURCES: Alberta (Wynne Resources 1994); British Columbia (Gemini Research and Angus Reid Group 1994); Nova Scotia (Baseline Market Research 1996); Washington (Volberg 1993); Louisiana (Volberg 1995c); Iowa (Volberg 1995b); New York (Volberg 1996a).

DISCUSSION AND CONCLUSION

In the past twenty years, gambling has increased, as has the rate of problem and pathological gambling. State revenues from gambling have increased exponentially, yet help for problem and pathological gamblers lags behind. Gross gaming revenues grew in the United States from $3.3 billion in 1974 to $44.4 billion in 1995, yet the total amount of money allocated by both the gaming industry and state governments to prevention, treatment, research, and public awareness for problem and pathological gambling was less than $20.0 million in 1997. Given that problem gamblers account for anywhere from 23 to 41 percent of gaming revenues, the minuscule amount allocated, less than 0.045 percent, is ridiculously low. One would think that the social costs are insignificant; however, as this article has documented, that is far from the case.

At present, legislatures and the gaming industry are paying lip service to the problem. What needs to be done? First of all, the National Gambling Impact Study Commission needs to seriously address the issue and not just submit a report that gets forgotten. That commission needs to call for a national institute on problem gambling, as there has been a National Institute on Drug Abuse and a National Institute on Alcoholism and Alcohol Abuse. Second, there is a need for a national clearinghouse on problem gambling. This could be administered by the national institute on problem gambling. Third, state legislatures need to fund prevention, awareness, treatment, and research.

State, private, charitable, and Indian gaming industry response to problem and pathological gambling needs to be more responsible. A responsible approach would involve (1) problem gambling awareness, prevention, and treatment programs for employees, their spouses, and their children; (2) continuing education and training of all personnel employed in the industry regarding problem and pathological gambling; (3) coordinated efforts among members of the industry to address the problem; (4) cooperation among industry leaders and councils on problem gambling to obtain state funding for prevention, awareness, treatment, and research; and (5) minimization of resistance to problem gambling research. Instead of challenging research findings, the industry needs to better fund researchers. A small start has been initiated through the National Center for Responsible Gaming. This is in its infancy, as funding—all from casino corporations to date—represents only 0.009 percent of gross casino revenues.

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