

Slot Machine Gambling in Spain: An Important and New Social Problem

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INTRODUCTION

Gambling was legalized in Spain in 1977 and games of pure chance (slot machines) in 1981. Legalization was justified because gambling provides entertainment to the millions of tourists who come to Spain, in addition to the fact that it provides an important boost to Government revenue and dissuades Spaniards from gambling their

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money abroad. Now, fifteen years later, an important change in the perception of gambling has taken place, spurred on by the steady economic growth of the eighties. Many people believe that gambling is "a means" of improving one's financial situation and life style, and a means by which they may equal the life style of those who have been more successful career-wise. Gambling has also created a large number of jobs and companies that enjoy large profits and there is thus a group that will strongly defend it.

The following is a list of the forms of gambling that are legal in Spain:

1. Casino games (roulette, blackjack, bacarrat, etc.).
2. Bingo.
3. Betting (football pools, horse-racing pools).
4. Lotteries (Lotería Nacional, Lotería Primitiva, Bonoloto and others).
5. The ONCE Draw (National Organization for the Blind).
6. Slot machines (type A, B, and C).
7. Television, radio and newspaper competitions.

There is also illegal gambling (when betting of money occurs):

8. Cards, poker, dice, cock-fighting . . .

Of the above-mentioned games, slot machines are the most popular. In 1991 they generated one billion two hundred thousand million pesetas (£1 = 200pts, \$1 = 130pts). At present in Spain there are 425,000 machines of all types installed in leisure centres, casinos, bingos and in almost every bar and restaurant in the country. These machines have spread far and wide in a few years and people are especially attracted to them due to the following circumstances: their placement in meeting places (especially in bars), the consumption of alcohol at the same time, the low cost of the bet, the modeling influence of those who play, and powerful audiovisual stimuli. Of these aspects it is probably the association of alcohol consumption and pathological gambling (Becoña, 1991, November; Lesieur, Blume & Zoppa, 1986; Lesieur & Rosenthal, 1991) which is most significant. In Spain the daily alcohol consumption is high and it is a normal behavior in the social context.

TYPES OF SLOT MACHINES

Slot machines were approved by Royal Decree in 1981 (Real Decreto, 1794/1981). There are three types of machine, A, B and C. *Type A* machines, amusement machines, or *comecocos* colloquially, are just for mere diversion and the player only pays for the game, without there being any cash prize or other type of prize. The only prize available, depending on skill, is a free game which is not exchangeable for money. However, the fact that the winner's name and score may appear on the screen is an attraction in itself, especially for adolescents.

Type B machines can be played for a certain amount of money and eventually, according to the game programme, give a cash prize. These are slot machines or fruit machines. The price of a game ranges between 5 to 25 pts for A and B-type machines. The prize given by the B-type machines can be 20 times the price of the game, and at present there is a special maximum prize of 7,500 pts.

Type C machines are different from type B in the price of the bet, which can reach 600 pts, and in the prize, which can reach 150,000 pts (250 times the price of the bet). There is also a special prize of 1,200,000 pts. Only the 22 casinos in Spain have permission to have these machines on the premises. In short, type A machines can only offer the possibility of a free game, whereas types B and C can give a cash prize.

ANNUAL EXPENDITURE ON GAMBLING AND SLOT MACHINES

At present Spain and Germany are the countries which spend the most money on gambling per capita in Europe (Hand, 1992), and rank among the highest spenders in the world (Rosecrance, 1988). Annual expenditure on gambling in Spain, taking into account all the legal games available, is around three billion pesetas. Table 1 outlines the amount gambled in each one of the principal games (data for Catalonia is not included). The Autonomous Communities, Income and Revenue and a private charity organization (ONCE) are the main beneficiaries of gambling. It is worth noting that slot machines generate almost

Table 1
Expenditure on Gambling in Spain in 1991,
in Millions of Pesetas

<i>Games/Form of Gambling</i>	<i>Millions of Pesetas</i>	<i>%</i>
I. Those controlled by the Ministry of Home Affairs	1,874,091.9	65.7
1. Casinos	40,610.4	1.4
2. Bingos	619,169.5	21.7
3. Slot Machines	1,214,312.0	42.6
II. Those controlled by a Public Body.	694,648.1	24.3
National lotteries and state draws		
1. National Lottery	481,600.0	16.9
2. Lotería Primitiva	153,236.5	5.4
3. Bonoloto	35,666.4	1.2
4. Football pools	24,145.2	0.8
III. Other games of chance	284,210.4	9.9
1. ONCE (The Organization of the Blind in Spain)	283,699.8	9.9
2. Betting on horses	510.6	0.0
Total	2,852,950.4	100.0

Source: Comisión Nacional del Juego, ONLAE, ONCE and Sociedad de Fomento de la Cría Caballar

as much money alone as the rest of the games available (i.e. 45% of total spending on gambling in Spain).

LEGISLATION

The Royal Decree of July 1981, concerning slot machines, stipulates the type of establishment these machines can be installed in and the number of machines allowed on the premises. In establishments where type A machines can be installed underage people (under 18 yrs.) can enter, and although there may be a bar, no alcoholic beverages can be served. Underage people are prohibited from entering establishments which may install type B slot machines and serve alcohol. If an establishment has both type A and B slot machines, that part of the establishment where type B machines are placed must be off-

limits to the underaged. Type C slot machines can only be installed in casinos; alcohol consumption is allowed but the under-aged are restricted from entering. Nevertheless, these restrictions are generally not enforced, as is also the case with the restriction on selling alcohol or cigarettes to the under-aged. The frequency with which adults visit bars accompanied by children, the ease of access to type A and B slot machines, the frequent consent of the parents (Fisher, 1992) and/or the participation of one of the parents in the games, make the play of slot machines by children common place.

However, in the last few years, increasingly strict and more restrictive legislation has emerged, probably due to the growing social outcry in the face of gambling-derived problems. In 1989 the Royal Decree restricted the number of machines in bars, cafés, hotels and similar establishments to one type A and another type B machine (Real Decreto 593/1989). This measure, along with the increase in taxes for each machine, has brought about a significant reduction in the number of machines installed in the last few years. For example, in Galicia (Figure 1) the number of type B machines has fallen from 29,406 units in 1989 to 17,918 in 1991, resulting in a concomitant reduction

Figure 1
Number of B Slot Machines in Galicia (Spain)
1989-91

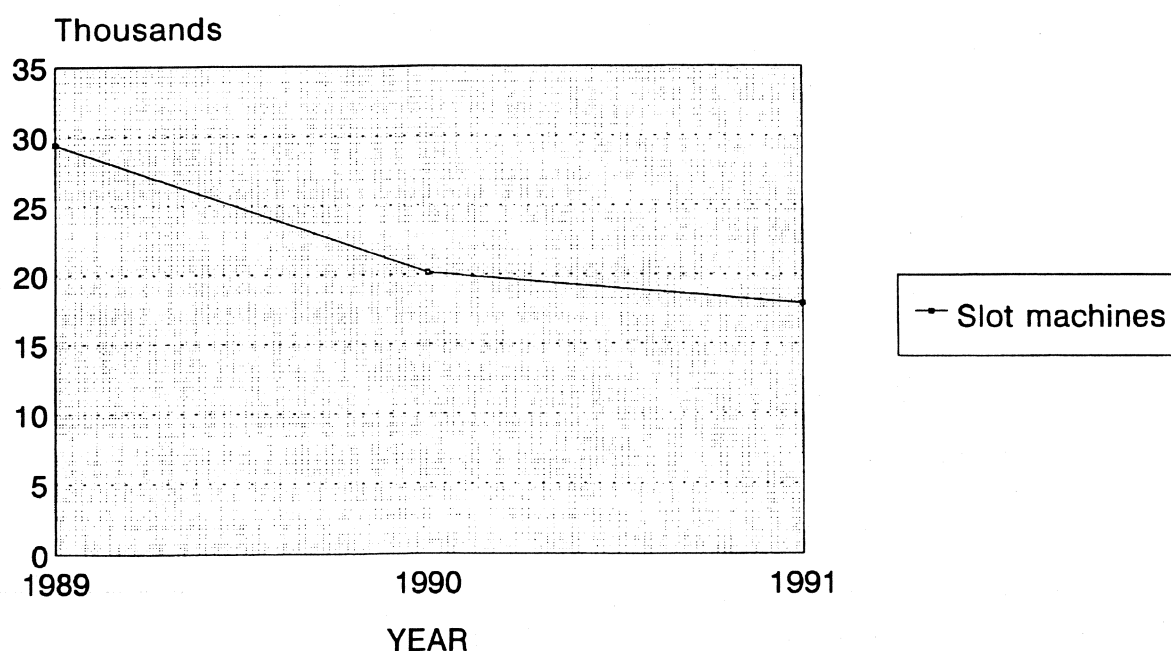
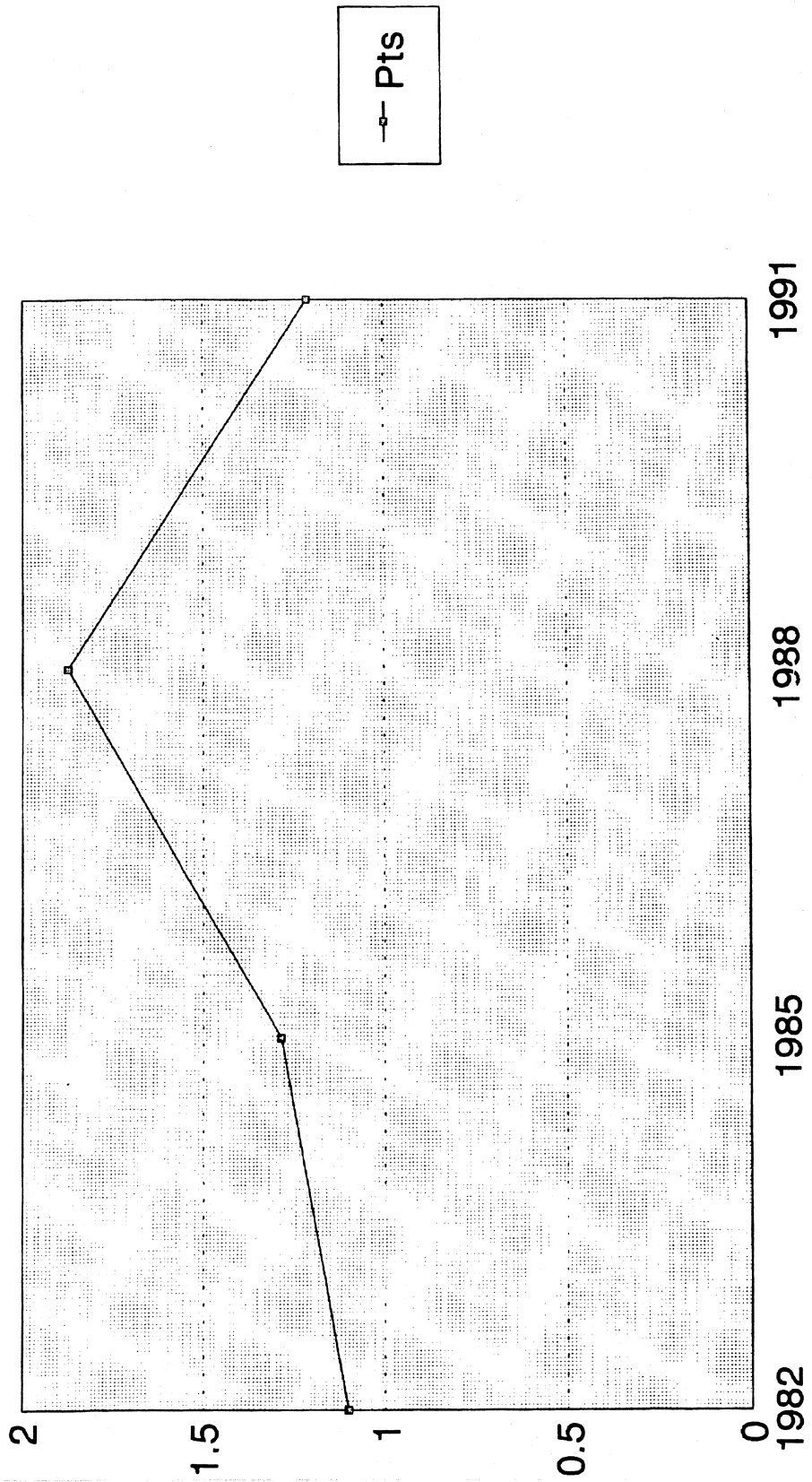


Figure 2
Spending in Slot Machines in Spain (1982-1991)
in billions of pesetas



in income from these slot machines (Figure 2), and in the amount of money spent on gambling in total in the last few years.

After two years of debates the Spanish Parliament has completed a report "Informe sobre la situación actual en España" [Report on the present situation in Spain (Congreso de los Diputados, 1992)], which proposes a greater control of under-age use of slot machines, smaller prizes, research into the connection between delinquency and gambling, and more support for people with gambling-related problems.

SLOT MACHINE GAMBLING IN RELATION TO OTHER GAMES AND PATHOLOGICAL GAMBLING

Given the importance of slot machine gambling, it is necessary to consider its effects on the social problem of pathological gambling. Recent studies confirm that slot machines are the most attractive form of gambling in Spain. For example, Toro (1991) points out that 75% of 237 pathological gamblers treated at a self-help centre between 1988 and 1991 preferred slot machine gambling. At the Centro de Salud Mental de Rentería (The Basque Country) 142 patients were treated between 1990 and 1992 for pathological gambling: 74% of these were addicted (exclusively or fundamentally) to slot machines (Echeburúa & Baez, 1993). In Becoña's study (1991), 78% of pathological gamblers preferred slot machines, although, in the case of the latter, many of them also participated in other forms of gambling. However, for the

Table 2
Types of Gamblers Depending on
Frequency and Weekly Spending

<i>Frequency</i>	<i>Weekly Spending</i>		
	<i>Low</i>	<i>Medium</i>	<i>High</i>
Daily	"Pickers" (1%)	Regulars (14%)	Addicts (8%)
Weekly	"Reserved" (9%)	Medium (23%)	Enthusiasts (3%)
Occasionally	"Detached" (26%)	Sporadic (12%)	Risk-takers (1%)

Source: De Miguel (1988)

Table 3
Expenditure on Gambling in the Basque Country
per Inhabitant

<i>Game</i>	<i>Expenditure per Inhabitant</i> <i>in pts/year</i>	<i>%</i>
National Lottery	3,692	17.5
Sports Pools	257	1.2
Lotería primitiva	1,963	9.3
Bonoloto	481	2.3
ONCE	1,670	7.9
Casino	455	2.1
Bingo	4,020	19.0
Type B Machines	8,376	39.6
Type C Machines	169	0.8
Instant draw	58	0.3
Total	21,141	100.0

Source: Gasto in Juego en el País Vasco, 1991, March 14

population in general, slot machines ranked only in eighth position as far as preference is concerned with the lotto being the most popular.

SURVEYS OF THE GAMBLING SITUATION IN SPAIN AND STUDIES OF PREVALENCE

Prevalence of pathological gambling in Spain according to different sources is very high (Echeburúa, 1992; Rosecrance, 1988). Since the legalization of gambling there are many factors which favour its prevalence: a) the great variety of gambling forms; b) availability and easy access; c) permissiveness and social acceptance; d) official (governmental) support; and e) intense advertizing. Although there is no actual study on the prevalence of gambling on a national level, there *are* studies of different zones and regions which help to estimate the magnitude of the problem in Spain. There are two types of studies in existence: i) general surveys on gambling in Spain, ii) studies on the prevalence of pathological gambling in Spain.

Attitude Surveys on Gambling in Spain

These attitude surveys review the opinion of Spaniards and examine what they think of gambling and where they stand as regards the problem. The most important of these surveys are those of the Libro Blanco del Juego [White Book on Gambling] (Comisión Nacional del Juego, 1986), the Centro de Investigaciones Sociológicas (1989) and that of De Miguel (1988).

The Libro Blanco del Juego Survey (1986), on behalf of the Ministry of Home Affairs, showed that 79.2% of people over 16 years of age admitted to gambling in one way or another. The main forms of gambling in order of frequency were: 1) the National Lottery (59.6%); 2) the Pools, (51.5%); 3) the ONCE draws (46.3%); the *Lotería Primitiva* (49.9%); 5) slot machines (Type B and C) (28.8%); 6) bingo (20.6%); 7) other raffles (16.6%) and 8) slot machines (Type A) (13.5%). Given that this survey was carried out in 1985 when slot machines had only just been legalized, it is not surprising that 71.2% declared that they never gambled on the slot machines.

The Survey of the Centro de Investigaciones Sociológicas (1989) analysed different forms of gambling, and given that it was carried out in the month of December, the National Lottery is given special attention. This is a very popular and traditional lottery and is promoted by the government. The prize is the biggest of its kind in the world and 41% declared that they only gambled on this special lottery. Also worth noting is the great divergence of participation in the various forms of gambling and the increase in gambling in relation to the previous survey. For example, in 1985 15.9% admitted to playing the slot machines at least once a month whereas in 1988, 24% admitted to doing so. It also showed there was an important positive relationship between the size of the municipality and prevalence of slot machine gambling.

The De Miguel Survey (1988) financed by Andemar-Facomare Asociación Española de Empresarios de Máquinas Recreativas [The Spanish Association of Slot Machine Dealers] examined slot machine gambling on a national level only. The sample group, which is not without certain methodological limitations, was composed of 1,682 slot machine players in 422 selected bars. It was pointed out that a large number of people gamble a small amount of money on the slot machines, with the lower classes being the most significant group. The

typical traits of people who spend a large amount of money on slot machine gambling are:

- 1) married men and women and above all, relatively speaking, widows, separated and divorced women; 2) merchants, the self employed and public service; 3) people in the 30-35 age-group; 4) people who take no physical exercise (De Miguel, 1988, p. 35).

These data are confirmed by people who are undergoing treatment.

Studies on the Prevalence of Pathological Gambling in Spain

Four studies have been carried out in different areas of Spain. Two studies conducted in Catalonia have not been published. Cayuela's study (1990) applied Lesieur and Blume's (1987) South Oaks Gambling Screen (SOGS) to a sample from this area and found that 2.5% of the people who participated in the survey were in the pathological gambling or problem categories. A study undertaken by Entitat Autònoma de Jocs i Apostes (EAJA) and sponsored by Catalanian casinos in 1990, reported 2.34% of Catalanian adults run the risk of becoming addicted to gambling, although this was from newspaper reports.

Becoña (1991, 1993) undertook a study with a sample of 1,615 people, representing adults over the age of eighteen in the seven main cities of Galicia (northeast Spain). Seven specially trained clinical psychologists undertook the surveys which helped to establish a DSM-III-R (American Psychiatric Association, 1987) diagnosis of pathological gambling. There was a 1.73% prevalence of pathological gamblers and 1.60% problem gamblers in the whole sample group. However, in the most populated cities, the percentage of pathological gamblers and problem gamblers was higher. For example, in Vigo (3.48% and 3.25%) and La Coruña (1.96% and 1.22%) the percentages were higher than in the other cities (0.64% and 0.90%). Becoña (1991, November) associates these differences to the relationship between gambling and the consumption of addictive substances (already pointed out by Edis, 1991). Those cities with the highest rate of consumption of addictive substances have also the highest rate in pathological gambling. Type B slot machines were the main form of

gambling for pathological gamblers, following by the *Lotería Primitiva*, the ONCE draw, bingo and the *Bonoloto* (daily loto). 50% of all pathological gamblers used slot machines on a daily basis. 43% had their greatest monthly expenditure on slot machines and 21% on video games machines. 43% of the identified pathological gamblers in the study had no direct income because the group contained many students, housewives and the unemployed. Seven percent of these pathological gamblers have a significant income and spent around 500,000 pts per month on gambling.

To conclude, Becoña's study showed that the prevalence of pathological gambling was gender biased (two men for every woman) and dependent upon age (the majority between 18 and 30), education (the less educated being the most affected generally) and low income level. However, the financial resources of the family are normally above average. [There were also more gamblers in the cities where alcohol or drug addiction is higher.]

The Legarda, Babio and Abreu (1992) study was undertaken with a representative sample of the adult population of the city of Seville, using the SOGS (Lesieur and Blume, 1987). The results confirm the existence of 1.67% probable pathological gamblers and 5.18% probable problem gamblers. It is worth noting that 40% of the selected people did not participate, which indicates a significant bias in the sample eventually used. Although the percentage of pathological gamblers (1.7%) is not very different from that of other western countries, the percentage of problem gamblers (5.2%) is very significant, and indeed worrying. The authors of the study attribute this important problem to the advertising of lotteries (often sponsored by the Government). The fact that public radio and television publicize and announce the results of these competitions (the Once draw, *Bonoloto*, *Lotería Primitiva*, National Lottery, the Football Pools, etc.) probably increases participation in these forms of gambling. A 15% increase in the money spent by Spaniards on gambling between 1987 and 1989 is a solid indication of this trend.

Legarda and colleagues' (1991) results indicate important differences between pathological gamblers detected by epidemiological studies and pathological gamblers who undergo special treatment. Those who undergo special treatment are almost exclusively men (87.5%), between the ages of 31 and 41 (50%), with a permanent job (54%), married (71%), with primary education (91%) and with a low income.

Table 4
Prevalence of Pathological Gambling in Spain

<i>Study</i>	<i>N</i>	<i>Pathological Gambler</i>	<i>Problem Gambler</i>	<i>Sample</i>
Cayuella (1990)	1,230		2.5% ¹	Representative of Catalonia
Becoña (1991, 1993)	1,615	1.7%	1.6%	Representative of the 7 chief cities in Galicia
Legarda, Babio and Abreu (1992)	598	1.7%	5.2%	Representative of the City of Seville

¹Indicates with the SOGS the datum of 2.5% for the combination of pathological gamblers and problem gamblers.

Table 4 shows a summary of the prevalence data obtained by the main studies carried out in Spain. From this data and extrapolating data from other countries with similar characteristics, we can estimate the rate of pathological gamblers over the age of 18 as 1.5%, and problem gamblers as 2.5% (although these are conservative estimates). This estimation, considering a census of 29,205,519 Spaniards over the age of 18, gives the figure of 450,000 pathological gamblers and 750,000 problem gamblers. The prevalence of slot machine pathological gambling would be between 1.2 and 1.3%, that is, 350,000 people.

SLOT MACHINE GAMBLING IN ADOLESCENTS

Up to the present moment, there has been no study carried out in Spain on gambling addiction among adolescents, especially for type A machines. However, taking into consideration the relationship found in other countries between the prevalence of pathological gambling in adults and adolescents (Fisher, 1992; Jacobs, 1989; Ladouceur and Mireault, 1988; Lesieur, Cross, Frank, Welch, White, Rubenstein, Moseley and Marks, 1991), high prevalence of pathological gambling

found in Spanish adults, and observations or available collateral data, it can be assumed that the prevalence of gambling in adolescents is on the increase, especially with regards to slot machines. We estimate that at least 3% of the population are adolescent pathological gamblers, a figure of 100,000. The number of problem gamblers must be close or even higher. The systematic infringement of the law that prohibits the entry to or the use of type B and C machines by teenagers may also be favouring the growth in the number of adolescent pathological gamblers.

Videogames seem to be contributing to the increase in gambling among adolescents. It has been suggested that the steps between watching television, playing videogames and slot machines may be equivalent to phases of a graduated progression which finally lead to pathological gambling in adolescents and adults (Brown and Robertson, 1992). In the face of this evolution it must be pointed out, among other factors, that video games generated one billion pesetas in Spain in 1991 (Spot, 1992); many adolescents truant from school in order to go to the game parlours; and these are places where young people get together at the weekend, etc. Given the large number of people addicted to type B machines between the ages of 18 and 30 in Spain (Becoña, 1993), it is very likely that addiction to type A machines in younger children may be significant. The preliminary data obtained at the Centro de Salud Mental de Rentería (Rentería, Basque Country) tends to confirm this hypothesis (Echeburúa and Báez, in progress).

CHARACTERISTICS OF SLOT MACHINE GAMBLERS

Based on the studies carried out in Spain, on our own studies and our own clinical experience, the following is a list of the characteristics that we have observed in pathological gamblers with regard to type B slot machines:

- They are mainly males, with a probable ratio of 3 men for every woman (3:1). The chief reason for this is probably because men visit bars more than women, and there is a slot machine in most bars. This difference is observed in other European countries (for example, Germany, Bühringer and

Konstanty, 1992; ratio 4:1 for pathological gamblers; Törne and Konstanty, 1992; ratio 9:1 in gamblers; and in U.K. ratio 4:1 for gamblers in arcades, Griffiths, 1991). This disproportion between men and women is even greater in studies carried out in other countries in gamblers who undergo treatment, with ratios of 7:1 and even 9:1 observed. A somewhat similar result has been found in the USA (Volberg and Steadman, 1988); in Germany (Hand, 1992; Schwartz and Linder, 1992); or in Austria (Horodecki, 1992). At treatment centres in Spain the ratio ranges between 3:1 (González, Mercadé, Aymaní and Pastor, 1982) and 6:1 (Echeburúa and Báez, in progress).

- The age of gamblers ranges between 18 and 40, which can be explained by the period covered by the legalization of gambling (1977), and especially the legalization of slot machines (1981).
- The predominant social classes are the lower and lower middle classes, although gambling is frequent in all social classes. Presence in bars and a greater alcohol consumption is more frequent in the above-mentioned classes.
- There is a positive relationship between pathological gambling and alcohol consumption, observed both in epidemiological studies (Becona, 1991, November) and clinical studies (Rodríguez-Martos, 1989). This gambling-alcohol association is very significant in Spain, one of the countries with the greatest alcohol consumption per capita in the world.
- There are other important associated problems, such as state of mind (depression, anxiety), social isolation (due to lying, debts, theft), marital and family relations, economics (debts) and, at times, breaking the law.
- Characteristic of these gamblers are their irrational beliefs and thoughts on slot machine winnings (for example, “this is my machine, I know when it is time to make a move”).
- Many gamblers tend to have a significant physiological reaction when they begin to play (before introducing the coin).

It is more difficult to describe type C slot machine problem gamblers, as there is less incidence due to the reduced number of places where they are situated (the 22 existing casinos in Spain); there has been no specific study on them up to the present.

THERAPEUTIC INTERVENTION PROGRAMMES

A few years after the legalization of slot machines people began to become addicted to them. In the last decade the number of addicts has risen sharply, and at the same time, therapeutic methods have been developed.

At present pathological gambling is tackled therapeutically in four different ways in Spain:

Self-Help Associations

Unlike other countries, "Gamblers Anonymous" has less influence than other types of self-help association ("Rehabilitated Gamblers Association", for example) which have been set up with the active intervention of professional therapists. From this point of view, pathological gambling is considered a kind of disease and it is thought that any further participation in any form of gambling will lead to a loss of control and the reassertion of pathological gambling habits. At this point in time, there are 27 self-help associations in Spain.

Although the structure of these types of associations is less strict than "Gamblers Anonymous" (e.g. there is no such spiritual component, the twelve steps are not rigorously followed, professional help is admitted, etc.), the therapeutic principles are quite similar. The objective of therapy is abstinence, and the proposed intervention implies individual and group therapy, with a humanistic approach, strong social support and concentration upon the "here and now" problems of the patient (financial, family problems, problems at work, social isolation, spare time, etc.). The protagonists of the group therapies are the patients themselves, who are, on the other hand, always under the auspices of a professional. An example of this type of association is described by Bombín (1992).

Cognitive-Behavioural Treatment Programmes

At the Psychiatric Service of the Hospital de Bellvitge in Barcelona, the González team (González, 1989; González, et al., 1992) propose individual therapy with stimulus control, direct exposure and prevention response, and year-long group therapy with or without

family. The group sessions of cognitive-behavioural orientation are included within a more complicated treatment programme in which individual and pair therapy is also conducted. Patients must attend fortnightly group sessions, some times alone and some times with family members, where cognitive restructuring and relapse prevention are concentrated upon.

At the University of the Basque Country the Echeburúa team (Echeburúa and Báez, 1993) is carrying out controlled clinical research into the differential effectiveness of treatments for pathological slot machine gamblers. The proposed therapy is made up of 6 weekly sessions, lasts for two months and has four follow-up controls (1, 3, 6 and 12 months). It is an ambulatory programme carried out within the framework of a Center of Mental Health, where the following therapeutic models are tested: a) stimulus control and direct gradual exposition with response prevention (individual treatment); b) cognitive-behavioural group therapy; c) a + b models and d) waiting list control group. The sessions are described by Echeburúa and Báez (1993) although the results have not yet been published.

Pharmacological Clinical Tests

There are two tests in Spain of special interest. In the first of these, carried out by the Psychiatric service of the Hospital Ramón y Cajal in Madrid (Saiz, 1992). Fluvoxamine (an antidepressant with powerful effects on the serotonimic transmission used for treating obsession-compulsion problems) is being used to treat pathological gambling. The hypothesis is that there is a hypoactivity in the serotonergic system of pathological gamblers. It is a pilot study controlled by a double blind system in such a way that the patients are assigned at random to one of these two groups: a) fluvoxamine + group psychotherapy concentrating on the problem; and b) placebo + group psychotherapy concentrating on the problem. It is a year-long programme and the fluvoxamine dose is from 100 to 200 mg per day. As yet no data are available on the results.

From another perspective, Turón, Salgado, González and Vicente (1990), at the Hospital de Bellvitge in Barcelona, have carried out an uncontrolled study with 30 patients treated with naltrexone (an antagonist block of opioid receptors), with maintenance figures of 150 mg every second day. The underlying hypothesis is that gambling is an

addiction with no connection with the use of any substances, and that over-production of endogenous opioids (endorphins) plays an important part in the genesis of all pathological activity and impulse control. A weekly control was conducted for the first two months and a monthly control for the remaining eight months. After ten months the abstinence rate among patients was 56%.

Diverse Ambulatory Programmes Offered by Private Clinics

Finally, there are a number of private centres generally situated in large cities that offer diverse treatment to pathological gamblers. These are clinics with previous experience in the treatment of alcoholism and drug-addiction. The proposed therapeutic approaches are quite heterogeneous. Although it is difficult to systematize the treatments on offer, the cognitive-behavioural approach, group therapy, individual psychotherapy and pharmacological approaches are predominant. The description of one of these cognitive-behavioural type programmes offered by the Instituto Español para la Atención a los problemas del Juego de Azar [Spanish Institute for Gambling Problems], can be found in González, García and Díaz (1991).

DISCUSSION

Judging by the available data, it is evident that the development of gambling in Spain has really been astronomical, despite the fact that it was legalized just a few years ago. Spain has now one of the highest growth rates for gambling in the world. Similarly, there has been a significant increase in problems brought about by pathological gambling, and almost half a million Spaniards can currently be considered pathological gamblers. Slot machines seem to have attracted the greatest number of pathological gamblers, an estimated 350,000 people (taking 1.25% of the adult population as a point of reference). Thus, some authors (e.g. Becoña, 1991, November; 1993) have gone as far as to say that to talk of pathological gambling in Spain is tantamount to talking about slot machines.

The high incidence of pathological gamblers in Spain, and the high incidence of slot machine pathological gamblers may be explained, at least in part, by the following factors. Firstly, the large

number of gambling forms available, along with a rather permissive law that is controlled and supervised to a lesser degree than what is expected. Government participation is quite ambiguous: the State, or rather the Department of Revenue and the Regional Revenue Departments, receive a very high income from gambling. For this reason, there is probably no great determination to comply with the legal limitations on gambling; on the contrary, there are intense publicity campaigns that promote gambling, undertaken even by public broadcasting companies. As an example of this, one only has to observe the daily news programmes on state television which give the winning numbers for different lotteries and draws (Lotteries, *Lotería Primitiva*, the ONCE draw, the Football Pools, etc.)

There is complete social acceptance of these games of chance — some of them, despite the former illegality of gambling have been in existence for many years, one or two for more than two centuries. The fact that the Catholic Church, which has had such a great influence on Spanish society up to recent times, has been tolerant of gambling, appears to be an important factor. Furthermore, the model of the social winner who gets rich fast, which is being sold to the public, makes most Spanish people see gambling as a way of achieving similar social triumph. On the other hand, there are also quiz-like entertainment programmes on the various television channels which offer substantial prizes.

As far as the incidence of slot machine gambling, it is obvious that the chief factor is the great variety of games on offer. Just a few years after the legalization of these machines, most bars or hotels had one on their premises. Moreover, it is estimated that around 30% of these establishments survive due to the slot machines (De Miguel, 1988). The situation of most slot machines in bars is conducive to gambling, given the frequency with which Spaniards visit bars, in some cases several times per day. The audiovisual stimuli which these machines were permitted to have initially (the melody was constant and intense and worked as a signal and stimulus to gamble, even for people who were just passing by in the street), became the centre of the attention of the people on the premises, facilitating modelling effects. Other structural characteristics (reviewed by Griffiths, 1993), such as pay out interval, facilitate the gambling behavior.

The State was forced to change the legislation before the tenth anniversary of the legalization of slot machines. In 1990 and 1991 a restriction on these machines (no more than one type B and one type A

per premises), a reduction of audiovisual stimuli, and an increase in the price of bets came into force. On the other hand the co-location of the machines in bars has made the alcohol-gambling association more frequent, leading to an increase in the level of gambling in a country where alcohol can be consumed in any bar, anywhere and at any time of the day.

If gambling and slot machine gambling is a problem among adults, then it seems much greater in adolescents, although as yet there has been no adequate epidemiological study undertaken. The gambling problem among adolescents is centred mainly on bingo slot machines because the gamble/bet lasts longer and the socialization factor is greater. One of the greater risks for adolescents is when they begin to earn money for the first time (e.g. their first job) and are not even minimally prepared for the financial implications (e.g. savings, plans, etc.).

Different factors seem to be contributing to the development of addiction in the under-age group. The first is the modeling effect. Given the frequency with which Spanish families visit bars and cafeterias, the fact that parents gamble on the machines creates an especially powerful behaviour-modeling effect. On the other hand social acceptance of gambling leads to the fact that one often sees parents show their children which buttons to press on the slot machines or even give them coins to gamble with. This is possible due to the systematic violation of the existing legislation which prohibits the presence of children on premises where type B machines are found. Apart from the very Spanish saying that "the law is there to be broken", it is only logical that the deep-rooted Spanish tradition of getting together in bars (often the whole family) will not come to a stop because of a little known law that prohibits under-age entry in bars with type B machines. Bar owners will obviously not want to upset their customers, especially if the authorities almost totally neglect to make the people comply with the law.

Finally, the above-mentioned gradual progression from TV to video games and type A machines, and from there to type B machines is extremely worrying. Considering this situation, there is an urgent need to make a significant change in the circumstances which have facilitated the development and maintenance of the problems of pathological gambling. In our opinion, this change should consist of the following aspects:

1. Change the present legislation, making entry to slot machine parlours more restrictive, reducing the number of slot machines, and reducing audiovisual stimuli generated by slot machines (sound, lights, etc.) and devices (buttons, levers) which give the impression that the machine can be controlled.
2. Rigorously apply the law, especially that which controls under-age presence on premises where type B machines are found.
3. Develop educational programmes for the general public to make them aware of the problems gambling can cause and the addictive power of some forms of gambling, especially slot machines.
4. Develop prevention programmes, especially for the 10–13 age-group, to make them aware of what can or cannot be won on games of chance and the development of resistance in the face of situations which are inducive to gambling. Prevention programmes like those elaborated by Gaboury and Ladouceur (in press) are of special interest here.
5. Develop measures for authorities to combat the existing problem. Worthy of note is the difference between the resources available for drug-related problems and the total lack of resources available for pathological gambling which is at least twice as frequent. Moreover, it is important that intervention, prevention and treatment programmes—given the special characteristics of gambling in this country, for example its social acceptance—should be developed with these characteristics in mind. Thus specialised research is called for.
6. Given the scarce amount of help or treatment demanded by women and adolescents, special measures should be adopted so that these groups do not feel left out, or so that they learn to detect their problem and know where to find professional help. The importance of the existing social support networks, especially family support, should be considered a very useful factor when solutions to this problem are looked for and even when the pathological gambler undergoes therapy. In Spain, as in other countries, the development of guidelines which help to control gambling is very necessary.

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