PROBLEM GAMBLING IN EUROPE: WHAT DO WE KNOW?

BY MARK GRIFFITHS

Gambling is a relatively new emerging field of education and research. So while there is growing research worldwide on problem gambling, at a societal level, the economic and social impacts of gambling, its role in public policy and its public health implications, are as yet under-researched. Systematic research strategies and programmes underpinned by independent decision-making about information needs and priorities, transparent processes, stakeholder input and widespread dissemination of research results are needed not only across Europe, but also worldwide.

Last year I was commissioned by Apex Communications and Stanley Bet International to provide a European country-by-country analysis of the known empirical evidence of what we know about gambling and problem gambling. My report was launched in Brussels at the European Parliament in November 2009 and in what follows I have outlined some of the main findings and conclusions. No primary references are cited in this article primarily because of space constraints but also because the full 86-page report is meticulously referenced and is freely available by writing to me at mark.griffiths@ntu.ac.uk for a full copy. The key for all the acronyms of the screening instruments cited in this article can be found at the bottom of Table 1.

In Europe, gambling is a diverse concept that incorporates a range of activities undertaken in a variety of settings and giving rise to differing sets of behaviours and perceptions among participants and observers. In absolute terms, European member states with the largest populations are the greatest gamblers.

In terms of Gross Gambling Revenues (GGR), Great Britain has the highest at ?11bn (i.e., amounts staked less money returned to players). This is followed by Germany (?8.4bn), France (?7.6bn), Italy (?6.2bn) and Spain (?4.9 billion). However, the size of population does not have much to do with propensity to gamble. The highest gambling countries by GGR are Ireland (?279 per year per person), Finland (?239), Luxembourg (?194), Great Britain (?181), and Sweden (?176). All of these (bar Great Britain) have small to medium size populations among the member states.

Across most jurisdictions, Lotto is the most popular adult game in most countries. However, results on the most popular

game among adolescents differed somewhat between countries. For example, although private card games and games of personal skill with family and friends were popular, the trend seemed to be that wherever commercial games (such as the lottery or slot machines) were widely available, adolescents increased their participation even though in most jurisdictions they may not be legally permitted to play these games. This pattern was revealed in adolescent studies in Great Britain, Finland, Iceland and Norway.

European research has consistently shown that problem gambling can negatively affect significant areas of a person's life, including their health, employment, finances, and interpersonal relationships. In addition, there are significant co-morbidities with problem gambling, including depression, alcoholism, and obsessive-compulsive behaviours. These co-morbidities may exacerbate, or be exacerbated by, problem gambling. The report also noted that the availability of opportunities to gamble and the incidence of problem gambling within a community are known to be linked, although the relationship is complex.

The terms 'problem gambling' and 'pathological gambling' (often used interchangeably but in fact operationally different) have been used by many researchers, bodies, and organisations, to describe gambling that compromises, disrupts or damages family, personal or recreational pursuits. The two most widely used screening instruments worldwide are the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) for pathological gambling, and the South Oaks Gambling Screen (SOGS).

There have been criticisms of both the DSM-IV and the SOGS. In part, these criticisms stem from an acknowledgment that both screens were designed for use in clinical settings, and not among the general population, within which large numbers of individuals with varying degrees of problems reside. A number of alternative screens have been developed, and these are increasingly being used internationally. One such screen is the Canadian Problem Gambling Index (CPGI), which was developed in Canada and has been used in that country, the US, UK and Australia.

The information I collated on gambling and problem gambling in each country broadly fell into one of three categories (see Table 1 for a very brief overview of main findings in each country). These were:

* Countries that have carried out national surveys on gambling and/or problem gambling of varying representativeness, quality and empirical rigour (i.e., Belgium, Denmark, Estonia, Finland, Germany, Great Britain, The Netherlands, Lithuania, Sweden and Switzerland).
* Countries that have carried out research on gambling and/or problem gambling of varying representativeness, quality and rigour but at a regional and/or local level rather than a national level (i.e., Austria, France, Hungary, Romania, Russia, Slovakia, Slovenia and Spain).
* Countries were almost nothing is known empirically about gambling and/or problem gambling (i.e., Bulgaria, Cyprus, Czech republic, Greece, Ireland, Latvia, Luxembourg, Malta, Poland and Portugal).

It was concluded that problem gambling rates in Europe appeared to be similar to rates found elsewhere outside of Europe (typically 0.5-2 percent), although a few countries

(e.g., Estonia, Finland, Switzerland) had problem gambling prevalence rates of above three percent. The most recent national population based study on adults in the United States suggests that current problem gambling prevalence rates ranged from 1.3 percent (based on a DSM-IV screen) to 1.9 percent (based on SOGS).

However, there is a problem with comparing these prevalence figures to European findings as the prevalence rate of problem and pathological gambling varies considerably between instruments. The majority of the studies in North America have used the SOGS, but the SOGS and its derivatives tend to yield higher prevalence rates than DSM-IV derived measures.

A conservative solution is to compare the results from problem gambling surveys with other surveys that have used the same or similar type of screening instruments (e.g., different instruments based on the DSM-IV criteria). Relatively few studies in Europe report current prevalence rates for probable pathological gambling but the results from these studies suggest broadly similar rates (Iceland, Sweden, Norway, Great Britain and Denmark). For example, the current prevalence rates of probable pathological gambling (i.e., those individuals endorsing five or items out of ten on the DSM-IV) in Britain, Sweden and Norway was 0.3 percent, in Iceland 0.6 percent and in Denmark 0.1 percent.

Results from studies in different European countries suggest that problem gambling among adolescents is considerably higher than among adults. This has also been reported in numerous North American studies. Although problem gambling among adolescent samples tends to be higher than in adult samples, many of the participants used in these studies are either local surveys and/or use opportunistic or non-representative samples. However, in countries where there have been large samples with good representation (e.g., Great Britain), the problem gambling prevalence rate among adolescents is at least four to five times higher than in the adult population.

The use of DSM-IV-J/DSM-IV-MR-J instruments in youth studies in North America, Australia and Europe vary widely. For example, the most recent prevalence rates of adolescent problem gambling (where four or more items out of ten items are endorsed on the DSM-IV-MR-J), is two percent in England and Wales, nine percent in Scotland, 3.4 percent to 4.7 percent in Canada, and 4.4 percent Australia. Similar prevalence rates have though been reported in Spain, Iceland and Norway.

In terms of problem gambling by type of gambling there appeared to be some consistent trends across European jurisdictions. The most recent national prevalence survey in Germany showed that of all the problem gamblers, slot machines were the most problematic with over 20 percent of all problem gamblers reporting that electronic gaming machines (EGMs) was their primary type of gambling (nine percent gambling machines; seven percent casino slot machines; five percent amusement with prizes machines).

Other prevalence studies in Europe have reported that problem gamblers were most likely to be EGM players including Estonia, Holland, Norway, Sweden, and Switzerland. Other studies have also found similar results with adolescents reporting that the main type of problem gambling among adolescents is related to EGM play in several countries, including Great Britain, Iceland, and Lithuania.

TABLE 1: SUMMARY OF COUNTRY-BY-COUNTRY DATA ON GAMBLING AND PROBLEM GAMBLING

Country	Gambling prevalence	Most popular gambling activities	Problem gambling prevalence	Instrument	Quality of data
Austria	Not known	Lotteries Slot machines	Not known	-	Poor
Belgium	60% (past year)	Lotteries Scratchcards	2% (past year)	DSM-IV	Medium
Bulgaria	Not known	Not known	Not known	-	Poor
Cyprus	Not known	Not known	Not known	-	Poor
Czech Republic	Not known	Not known	Not known	-	Poor
Denmark	[Not reported]	[Not reported]	1.7% (lifetime) 0.7% (lifetime)	SOGS-RA NODS	Medium
Estonia	75% (past year)	Lotteries Slot machines	6.5% (past year)	SOGS	Medium
Finland	74% (past year)	Lotteries Scratchcards	5.5% (past year)	SOGS-R	Good
France	50% (approx – past year)	Horse racing Lotteries/Rapido	Not known	-	Poor
Germany	39% (past year)	Lotteries Scratchcards	1.2% (past year)	DSM-IV	Good
Great Britain	68% (past year)	Lotteries Scratchcards	0.6% (past year) 0.5% (past year)	DSM-IV CPGI	Good
Greece	Not known	Sports betting Lotteries	Not known	-	Poor
Hungary	19% (monthly)	Lotteries	7% ("heavy gamblers")	-	Poor
Iceland	69% (past year)	Lottery Scratchcards	1.1% (past year)	DSM-IV	Good
Ireland	59% (past year lottery)	Lotteries Sports betting	Not known	-	Poor
Italy	80% (past year)	Lotteries	Not known	-	Poor
Latvia	Not known	Not known	Not known	-	Poor
Lithuania	30% (lifetime)	Sports betting Slot machines	Not assessed	[None used]	Poor
Luxembourg	Not known	Not known	Not known	-	Poor
Malta	54% (18-24 year olds - past year)	Lottery Scratchcards	Not known	-	Poor
The Netherlands	87% (lifetime)	Lottery Scratchcards	2.5% (lifetime)	SOGS	Good
Norway	[Not reported]	Lotteries Football pools	1.4% (lifetime)	NODS	Medium
Poland	60% (lottery past year)	Lotteries	Not known	-	Poor
Portugal	Not known	Slot machines	Not known	-	Poor
Romania	Not known	Casinos	Not known	-	Poor
Russia	75% (past year)	Lotteries Casinos	Not known	-	Poor
Slovakia	Not known	Slot machines Lotteries	Not known	-	Poor
Slovenia	Not known	Casinos	Not known	-	Poor
Spain	[Not reported]	Slot machines Lotteries	0.9%-2.5% (Lifetime)	Various	Medium (localised)
Sweden	[Not reported]	Lotteries	2.0% (past year)	SOGS-R	Medium
Switzerland	[Not reported]	Lotteries	3.3% (lifetime)	SOGS	Poor

Key: CPGI = Canadian Problem Gambling Index; DSM-IV = Diagnostic and Statistical Manual, Fourth Edition; DSM-IV-J = DSM-IV Junior Version; DSM-IV-MR-J; DSM-IV Junior Multiple Response Version; NODS = National Opinion Research Center DSM Screen For Problem Gambling; SOGS = South Oaks Gambling Screen; SOGS-R = Revised South Oaks Gambling Screen.

Internationally, a growing proportion of problem gamblers contacting helplines or assessing treatment are identifying EGMs as their primary form of gambling. This finding has been confirmed in Europe where many countries reported that problem EGM gamblers were most likely to seek treatment and/or contact national gambling helplines including 60 percent of gamblers seeking help in Belgium, 72 percent in Denmark, 93 percent in Estonia, 66 percent in Finland, 49.5 percent in France, 83 percent in Germany, 45 percent in Great Britain, 75 percent in Spain, and 35 percent in Sweden. Although no figures were provided, it was also reported that the 'vast majority' of all those attending various treatment programmes in Slovakia were EGM gamblers. In Switzerland, it was reported that of all the 2,443 casino self-exclusions, over three-quarters (78 percent) were for slot machine gamblers.

Literature reviews carried out in Australia and Great Britain (see resources listed in the 'Further reading' section at the end of this article) have concluded that gaming machines are more likely to lead to problem gambling than other forms of gambling. These reviews also suggest that a range of structural characteristics impact on gambling behaviour.

Relevant primary structural characteristics include the core technology of the EGM, i.e., the reinforcement schedule which determines the number and scale of reinforcement intervals (e.g., payout intervals) and conditions players to game operation, as well as the configuration of line betting (single v multiple lines), credit value (as virtual representation of money), the reel symbol ratio, accompanying bank note acceptors and spin speed (i.e., event frequency). Secondary characteristics include lighting, colour and sound effects (e.g., music, verbal interaction, sound of winning coins), machine theme, etc. The complex interrelationships between these structural characteristics produce interactive effects that may shape gambling behaviour, including the production of harm as measured by problem gambling segments. Available research demonstrated that material change to structural characteristics can in some circumstances lead to transformation of gambling behaviour (see 'Further reading').

Reviews of the literature reveal that the number of correlates or potential risk factors of problem gambling are numerous, and it is possible that different combinations of a number of factors may explain the development of problem gambling for different individuals. Results from cross-sectional studies can be useful in terms of estimating the potential importance of such factors, although experimental and/or longitudinal studies are necessary for causal explanations.

In general, the European data show that problem gamblers invest more time, money and usually participate in a larger number of games than non-problem gamblers. Problem gambling also seems to be more strongly associated with certain types of gambling than others. Research findings indicate that continuous games with an element of skill or perceived skill are more strongly associated to problem gambling than other types of games. Because of the lack of good data across Europe as a whole, there is a lack of correlation between levels of problem gambling and the type of market that gambling activity occurs in.

My report ended by saying that gambling is a relatively new emerging field of education and research. Some may argue that the existing knowledge base for the formulation of evidence-based policies is small (especially when compared with other potentially addictive behaviours). Although there is growing research worldwide on problem gambling, at a societal level, the economic and social impacts of gambling, its role in public policy and its public health implications, are under-researched. Systematic research strategies and programmes underpinned by independent decision-making about information needs and priorities, transparent processes, stakeholder input and widespread dissemination of research results are needed not only across Europe, but also worldwide. **CGI**

FURTHER READING

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