

## **Gambling addiction in adolescence**

***The Gambling Act 2005 does nothing to prevent children from being induced into gambling, argues Mark Griffiths***

The United Kingdom is just about to undergo one of the most radical changes of gambling legislation in its history. The Gambling Act 2005 will provide the British public with increased opportunities and access to gambling. Gambling legislation will be revolutionized and many of the tight restrictions on gambling dating back to the Gaming Act 1968 will be relaxed. The Act also includes many measures designed to protect the vulnerable including children and adolescents.

However, as the Act currently stands, children will still be able to legally gamble on category D slot machines (fruit machines) that are housed in seaside arcades and family leisure centres. This is a loophole that the government should close up based on the empirical evidence surrounding adolescent gambling.

Because of the Gambling Act, opportunities to gamble and access to gambling will increase. What has been clearly demonstrated from research evidence in other countries is that where accessibility of gambling is increased there is an increase not only in the number of regular gamblers but also an increase in the number of problem gamblers – although this may not be proportional<sup>1</sup>.

This obviously means that not everyone is susceptible to developing gambling addictions but it does mean that at a societal (rather than individual) level, in general, the more gambling opportunities, the more problems.

### **A growing problem**

Adolescent gambling is a growing problem in the UK and is related to other delinquent behaviours. For instance, in one study of over 4500 adolescents<sup>2</sup>, it was shown that gambling was highly correlated with other potentially addictive activities such as illicit drug taking and alcohol abuse. Another study<sup>3</sup> demonstrated that around four per cent of all juvenile crime in one UK city was slot machine related based on over 1850 arrests in a one-year period.

**For some adolescents, gambling can cause many negative detrimental effects in their life**

It has also been noted that adolescents may be more susceptible to pathological gambling than adults. For instance, in the UK, a number of studies have consistently highlighted a figure of up to five to six per cent level of pathological gamblers among adolescent fruit machine gamblers<sup>4,5</sup>. This figure is at least two to three times higher than that identified in adult populations. On this evidence, young people are clearly more vulnerable to the negative consequences of gambling than adults.

A typical finding of many adolescent gambling studies has been that problem or pathological gambling appears to be a primarily male phenomenon. It also appears that adults may to some extent be fostering adolescent gambling. For example, a strong correlation has been found between adolescent gambling and parental gambling<sup>6,7</sup>. This is particularly worrying because a number of studies have shown that when people gamble as adolescents, they are then more likely to become problem gamblers as adults. Similarly, many studies have indicated a strong link between adult problem gamblers and later problem gambling amongst their children<sup>7</sup>. Other factors that have been linked with adolescent problem gambling

include working class youth culture, delinquency, alcohol and substance abuse, poor school performance, theft and truancy<sup>4,5,8</sup>.

### **The problem with fruit machines**

The main form of problematic gambling among adolescents has been the playing of fruit machines - many of which are legal for children to gamble on. There is little doubt that fruit machines are potentially addictive and there is now a large body of research world-wide supporting this.

In the past ten years, fruit machines have been the predominant form of gambling by pathological gamblers treated in self-help groups and professional treatment centres across Europe. Almost half of all calls to the GamCare helpline in the UK are from slot machine gamblers (with a significant proportion of these being adolescents).

There are many reasons why this is the case. Slot machines have high event frequencies (that is, they are fast action games), aurally and visually stimulating and rewarding, require a low initial stake, provide frequent wins, require no pre-knowledge to commence play, and may be played alone. (These are features present on all slot machines including category D machines on which children and adolescents can legally play).

Clearly decisions to play fruit machines and to continue playing them to excess are contingent upon the player's biological and psychological constitution and situational variables. However, structural characteristics of fruit machines are designed to induce the player to play and/or to continue playing. It has further been argued that a combination of the technological aspects of structural characteristics (event frequency, the near miss, symbol ratio proportions, light and sound effects, the suspension of judgment, etc) may

contribute towards habitual and repetitive play in some individuals<sup>4</sup>.

Again, these features are present on all slot machines including category D machines.

### **Research on the problem**

Most research on fruit machine gambling in youth has been undertaken in the UK where they are legally available to children of any age.

The most recent wave of the UK tracking study carried out by MORI and the International Gaming Research Unit (Nottingham Trent University)<sup>9</sup> found that fruit machines were the most popular form of adolescent gambling with fifty-four per cent of their sample of 8,017 adolescent participants. A more thorough examination of the literature summarizing over thirty studies<sup>4, 5,8,9</sup> indicates that :

- at least two-thirds of adolescents play fruit machines at some point in their adolescent lives
- one third of adolescents will have played fruit machines in the last month
- that ten to twenty per cent of adolescents are regular fruit machine players (playing at least once a week) (seventeen per cent in the latest 2006 MORI/IGRU survey)
- that between three and six per cent of adolescents are probable pathological gamblers and/or have severe gambling-related difficulties (3.5 per cent down from 4.9 per cent in the latest 2006 MORI/IGRU survey).

All studies have reported that boys play on fruit machines more than girls and that as fruit machine playing becomes more regular it is more likely to be a predominantly male activity. Research has also indicated that very few female adolescents have gambling problems on fruit machines.

### Why do they play?

So why do adolescents play fruit machines? This is not easy to answer as there are a host of possible reasons. However, research does suggest that irregular ('social') gamblers play for different reasons than the excessive ('pathological') gamblers.

Social gamblers usually play for fun and entertainment (as a form of play), because their friends or parents do (that is, it is a social activity), for the possibility of winning money, because it provides a challenge, because of ease of availability and there is little else to do, and/or for excitement (the 'buzz')<sup>4</sup>.

Pathological gamblers appear to play for other reasons such as mood modification and as a means of escape. As already highlighted, young

**Gambling is an adult activity and legislation should be introduced which restricts gambling to adults**

males seem to be particularly susceptible to fruit machine addiction with up to five to six per cent of adolescents in the UK experiencing problems with their fruit machine playing at any one time.

This does not mean that everyone who plays fruit machines will become addicted (in the same way that not everyone who drinks alcohol will become an alcoholic). What it does mean is that given a cluster of factors (genetic and/or biological predisposition, social upbringing, psychological constitution, situational and structural characteristics), a small proportion of people will unfortunately experience severe problems.

Like other potentially addictive behaviours, fruit machine addiction causes the individual to engage in negative behaviours. This includes

truanting in order to play the machines, stealing to fund machine playing, getting into trouble with teachers and/or parents over their machine playing, borrowing or the using of lunch money to play the machines, poor schoolwork, and in some cases aggressive behaviour<sup>4,5</sup>.

These behaviours are not much different from those experienced by other types of adolescent problem gambling. Furthermore, fruit machine addicts also display bona fide signs of addiction including withdrawal effects, tolerance, salience, mood modification, conflict and relapse.

Addictiveness depends on many factors including individual factors of the gambler, the nature of the activity (structural characteristics) and the environment in which the activity is carried out (situational characteristics).

For instance, structural characteristics such as jackpot prizes tend to influence gambling acquisition whereas event frequency tends to influence maintenance. On slot machines, the pay out interval (the time between initial gamble and winning payment) is very short.

Three factors are inextricably linked with such a characteristic that contribute to addictiveness.

The first of these is the frequency of opportunities to gamble (that is, event frequency). Logistically, some gambling activities (for example, lotteries, football pools) have small event frequencies. However, in the case of slot machines there are few constraints on repeated gambling.

The limits are defined by the speed of the machine's mechanisms and the players themselves. Such a characteristic may therefore be an inducement to gamble and an inducement to continue.

The frequency of playing when linked with the two other factors - the result of the gamble (win or loss) and the actual time until winnings are received - exploit certain psychological principles of learning. This process (operant conditioning) conditions habits by rewarding behaviour, that is, through presentation of a reward (such as money), reinforcement occurs. To produce high rates of response those schedules which present rewards intermittently (random and variable ratio schedules) have shown to be most effective.

Since all slot machines (including category D machines) operate on random and variable ratio schedules it is unsurprising that high rates of response (that is, excessive gambling) occur. Promoters appear to acknowledge the need to pay out winnings as quickly as possible thus indicating that receiving winnings is seen by the gaming industry to act as a reinforcement to winners to continue gambling.

Rapid event frequency also means that the loss period is brief with little time given over to financial considerations and, more importantly, winnings can be re-gambled almost immediately.

### **Conclusion**

In summary, games that offer a fast, arousing span of play, frequent wins and the opportunity for rapid replay are associated with problem gambling. In terms of facilitating habitual behaviour, there is no difference between slot machines either psychologically and behaviourally.

For some adolescents, gambling can cause many negative detrimental effects in their life. Education can be severely effected and they may have a criminal record as most problem gamblers have to resort to illegal behaviour to feed their addiction. Gambling is an adult activity and legislation should be introduced which restricts gambling to adults only.

### **Footnotes**

- 1 Griffiths, M.D. (2004). Betting your life on it: Problem gambling has clear health related consequences. *British Medical Journal*, 329, 1055-1056.
- 2 Griffiths, M.D. & Sutherland, I. (1998). Adolescent gambling and drug use. *Journal of Community and Applied Social Psychology*, 8, 423-427.
- 3 Yeoman, T. & Griffiths, M.D. (1996). Adolescent machine gambling and crime. *Journal of Adolescence*, 19, 183-188.
- 4 Griffiths, M.D. (1995). *Adolescent Gambling*. London: Routledge.
- 5 Griffiths, M.D. (2002). *Gambling and Gaming Addictions in Adolescence*. Leicester: British Psychological Society/Blackwells.
- 6 Wood, R.T.A. & Griffiths, M.D. (1998). The acquisition, development and maintenance of lottery and scratchcard gambling in adolescence. *Journal of Adolescence*, 21, 265-273.
- 7 Wood, R.T.A. (2004). Adolescent lottery and scratchcard players: Do their attitudes influence their gambling behaviour? *Journal of Adolescence*, in press.
- 8 Griffiths, M.D. (2003). Adolescent gambling : Risk factors and implications for prevention, intervention, and treatment. In D. Romer (Ed.), *Reducing Adolescent Risk: Toward An Integrated Approach*. pp. 223-238. London: Sage.
- 9 MORI/International Gaming Research Unit (2006). *Under 16s and the National Lottery*. London: National Lottery Commission.



Professor Mark Griffiths is Professor of Gambling Studies and heads the International Gaming Research Unit at Nottingham Trent University