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**A PSYCHOLOGICAL INVESTIGATION OF THE EFFECTS OF THE UK
NATIONAL LOTTERY AND SCRATCHCARDS ON ADOLESCENTS**

RICHARD T. A. WOOD

A thesis submitted in partial fulfilment of the requirements of
The Nottingham Trent University for the degree of Doctor of Philosophy

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Phd/2001
Wood

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Griffiths, M.D. & Wood, R.T.A. (2000). Risk factors in adolescence: The case of gambling, video game playing and the internet. *Journal of Gambling Studies*, Vol 16, (2/3) 199-225.

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Griffiths, M.D., Wood, R.T.A. (1998). Adolescent Gambling on the National Lottery. *Education and Health*, Vol 16, (4) 53-56.

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Wood, R.T.A. & Griffiths, M.D. (2000). Family Lottery Gambling and the Implications of Web Based Lotteries. The 11th International Conference on Gambling and Risk Taking, Las Vegas, USA.

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Statement of Ethical Practise

All research carried out in this thesis was designed and conducted in accordance with The British Psychological Societies code of ethics. In addition, the framework for the study was approved by The Nottingham Trent University Post Graduate Degrees Committee. In designing each stage of the research I frequently consulted with my supervisory team about the ethical principals involved. All of the participants who took part in the research were free to terminate their participation with the research at any time. No deceptive practices were used and anonymity and confidentiality was assured at all times. In order to obtain informed consent all participants were given a written and verbal explanation of the research practices. After each study was completed all participants were debriefed and thanked for their help.

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Abstract

This thesis was an exploratory social psychological study of adolescent gambling on the UK National Lottery and scratchcards. The research used a number of methods to examine both quantitative and qualitative aspects of gambling on these activities utilising a survey, Q-sorts and a series of group interviews. Findings highlight the social dimensions associated with the acquisition, development and maintenance of adolescent gambling behaviour in accordance with social cognitive theory (Bandura, 1986). The findings also demonstrate how attitudes are linked to actual gambling behaviour as predicted by the theory of planned behaviour (Ajzen, 1988). The research identified different patterns of adolescent gambling on the National Lottery and scratchcards and these are summarised in a typology. Finally, the implications of the findings are discussed for the development of effective education and prevention programs, and the treatment of adolescent problem gamblers.

CHAPTER: 1

GAMBLING: A BRIEF OVERVIEW

Gambling is an activity that has been documented in societies for many centuries. The earliest recorded example is believed to be a set of 5000 year old Egyptian astragals - a bone version of dice - used to predict the future (Dickerson, 1984). There is ancient historical evidence from all over the world of the popularity of gambling. For example, evidence has been found in Greek and Roman Mythology, Indian manuscripts, and European tribal archaeological finds (Dickerson, 1984).

Gambling is frequently undertaken socially as a recreational pursuit involving other people e.g. playing cards (Lea, Tarpay & Webley, 1987). However, gambling may also be undertaken on an individual basis e.g. fruit machines (Griffiths, 1995b) or scratchcards (Fisher & Balding, 1998). Gambling activities come in many forms and often a distinction can be made between games of chance and games of skill. Chantal and Vallerand (1996) found that gamblers often regard some types of gambling as skilful (e.g., horse racing), and other types as dependent on luck or chance (e.g., lotteries). Due to the diversity and proliferation of gambling activities, defining exactly what gambling is can be problematic. It could be argued that it is more useful to describe different forms of gambling rather than attempting to delineate an explicit denotation of gambling. For example, Perkins (1950) identifies four main types of gambling;

Gaming: Exchange of money during the activity (e.g., roulette, blackjack)

Betting: Staking money on a future event (e.g., horseracing)

Lotteries: Distribution of money by lot (e.g., football pools)

Speculation: Gambling on the stock market (e.g., investing in shares)

Gambling is a diverse activity but usually involves a number of common themes. Such themes include the role of chance (at least partly) in the outcome of the gamble, outcomes dependent on unknown future events, winners benefiting from losers and a redistribution of wealth from one party to another (Griffiths, 1995a; Lea, Tarpy & Webley, 1987). Devereux (1968) asks us to consider that losses can be avoided by not taking part in the activity, thus distinguishing gambling from other events for which a person has no control (e.g., losing money accidentally).

Another important distinction that can be observed about different types of gambling concerns the differences between 'hard' and 'soft' forms of gambling. The defining features of each of these forms of gambling relate to several factors. The *event frequency* determines how often a person can gamble on an activity in a certain period of time. High event frequencies are associated with 'harder' forms of gambling such as those commonly found in casinos, e.g., roulette and Black Jack (Royal Commission, 1978). These types of gambling are more likely to lead to high monetary losses as the opportunity for continuous gambling is present, and there is little opportunity to contemplate what has been lost. Relatively low event frequencies usually relate to 'softer' gambling activities, where the person has to wait some time before they can gamble again, e.g., weekly lotteries and football pools. Theoretically, a person might also maintain a pattern of continuous gambling on these activities. Often there are few,

if any limits, on how frequently a person can gamble on an activity. However, with 'softer' forms of gambling the result of the gamble is not known for some time. Consequently, there is little incentive to re-gamble after the first purchase has been made, until after the result of that gamble has been determined. The *payout interval* is another factor to consider. The payout interval relates to the time between the initial gamble and the receipt of the actual winning payment. The shorter the payout interval the 'harder' the form of gambling tends to be. Therefore, roulette could be considered a 'hard' form of gambling because it can be played, and re-played very quickly (event frequency) and winning money is paid out immediately (payout interval), albeit in the form of chips. Most lotteries might be considered a 'softer' form of gambling because the player usually has to wait longer (e.g., from several minutes to days) before they obtain a result and can re-gamble. Also, lottery winning payments frequently require the person to return to the vendor to receive payment, or to claim winning payments via mail.

Social Gambling

Gambling is a very popular activity in British society and cuts across several demographic factors such as class and ethnic origin. It appears that the majority of the UK population are gamblers rather than non-gamblers (Royal Commission on Gambling, 1978). Mintel (1993) found that 74% of the UK adult population acknowledged that they had gambled at some point during the year 1992. More recently, a survey commissioned by The National Centre for Social Research found that three out of every four adults in the UK report gambling every year (Sproston, Erens & Orford, 2000). However, the introduction of the UK National Lottery in November 1994 has

had a dramatic effect on the prevalence of gambling within the UK. Research by Camelot (the current National Lottery administrator) has indicated that around 90% of the adult population have played the lottery at least once, and 65% play the lottery on a regular basis (Camelot, 1995). It appears then, that gambling is a persistent and institutionalised form of behaviour. The introduction of The National Lottery has in itself increased gambling participation considerably, within the UK. The reasons why people choose to gamble are not entirely certain, as it is clear that many gamblers are fully aware that they will ultimately lose money on the activity. The following, outlines the major psychological explanations for gambling behaviour.

Compulsive, Problem and Pathological Gambling

For most people, gambling is experienced as a pleasurable activity, and is usually without problem. However, for a sizeable minority their gambling behaviour may become problematic. The term compulsive gambler is often used to describe these people (Lesieur & Rosenthal, 1991). However, this may not be an appropriate label as the majority of gamblers actually enjoy gambling (at least in the early stages) (Lesieur & Rosenthal, 1991). Problem gambling is a wider term that refers to a pattern of gambling behaviour that disrupts, compromises or damages a person and or their families personal or vocational life (Lesieur & Rosenthal, 1991). Pathological gambling may be seen as a serious form of problem gambling disorder with progressive and socially impairing features. Pathological gambling was first recognised as a mental disorder in the third edition of the *Diagnostic and Statistical Manual* (American Psychiatric Association, 1980) under the heading of 'Disorders of Impulse Control'. This criteria was based on a disease model of pathological gambling that viewed the disorder as an illness. This

criteria was revised in DSM-III-R (APA, 1987) where diagnosis was based upon the features of substance abuse disorders. The current criteria for identifying pathological gambling is the DSM-IV (APA, 1993). Diagnosis is based on at least four of the following (see Table 1).

Table 1. DSM-IV (APA, 1993)

<ol style="list-style-type: none">1. As gambling progressed, became more and more preoccupied with reliving past gambling experiences, studying a gambling system, planning the next gambling venture, or thinking of ways to get money.2. Needed to gamble with more and more money in order to achieve the desired excitement.3. Became restless or irritable when attempting to cut down or stop gambling.4. Gambled as a way of escaping from problems or intolerable feeling states.5. After losing money gambling, would often return another day in order to get even ('chasing') one's losses.6. Lied to family, employer or therapist to protect and conceal the extent of involvement with gambling.7. Committed illegal acts such as forgery, fraud, theft or embezzlement, in order to finance gambling.8. Jeopardised or lost significant relationship, marriage, education, job or career because of gambling.9. Needed another individual to provide money to relieve a desperate financial situation produced by gambling (a 'bailout').
--

Dimensions for each of the criteria are: 1. progression and preoccupation, 2. tolerance, 3. withdrawal and loss of control, 4. escape, 5. chasing, 6. losses, 7. illegal acts, 8. family/job disruption, and 9. financial bailout.

Source: Lesieur and Rosenthal, 1991.

This diagnostic tool has also been adapted for use with juveniles, as DSM-IV-J (Fisher 1992). Estimates of adult probable pathological gamblers vary both between countries and within them (Royal Commission 1951; Dickerson, 1974; Kallick, Suits, Dielman & Hybels, 1979; Volberg & Steadman 1988). Adolescents may be more susceptible to such gambling problems, due to their lack of experience, the conflicts of puberty and finding an adult identity. Estimates suggest that, on average, between five and six percent of adolescents could be classified as pathological gamblers (Lesieur & Klein, 1987; Fisher, 1993;) approximately twice the figure of adult prevalence.

The phases of pathological gambling

Despite the differences exhibited between pathological gambling behaviours, and the variety of factors involved in the acquisition, development and maintenance of pathological gambling, a number of common phases have been identified (Custer 1984; 1985, Rosenthal 1986;1989; Lesieur & Blume 1989; Lesieur & Rosenthal 1991). Lesieur and Rosenthal (1991) in considering the previous research suggested that the pathological gambler moves through a number of distinct phases (see Table 2.)

Table 2. Pathological gambling phases

- The *Winning Phase*- During this stage the gambler gains satisfaction from winning and may begin to base their self esteem on winning. The gambler may have a substantial win at this stage, which may bolster the gamblers confidence in winning, resulting in the taking of greater risks. The gambler may begin to fantasise about winning, and come to regard money as the solution to all problems. During this phase if losses are experienced many gamblers will 'chase their losses' and try to get even by winning back their lost money. The obsession with winning back money can then lead to the *losing phase*.
- The *losing phase*- The gambler continually tries to win back lost money through placing larger bets. For many the social aspect of gambling is removed, gambling becomes a desperate struggle to regain wins. During this stage the gambler becomes more and more in debt and has to lie to disguise the extent of their gambling and associated debts. Eventually these losses can be hidden no longer as debts increase and creditors demand money. The gambler may also be facing legal action for bad debts or even theft or fraud. The gambler admits to their family the extent (or partial extent) of their problems and is subsequently 'bailed out', that is the family pay the debts and the gambler promises to relent. However, this has the effect of making the gambler feel invincible and to resort to heavier gambling still, leading to total loss of control over gambling behaviour.
- The *desperation phase*- During this phase the gambler is more likely to resort to illegal acts to finance their gambling behaviour, such as theft and fraud. This criminal action is rationalised as a loan which will be paid back after 'the big win'. The gamblers optimism increases as the situation becomes more desperate, they are convinced that they will be saved by winning a large amount of money. Other aspects of the gamblers life such as family and work are neglected . Sleep and eating patterns become erratic and the gambler becomes agitated and bad tempered, sometimes becoming abusive to family members. The gambler may fantasise about starting life again with a new identity. As the gambler becomes more desperate the fear of creditors the law, family and others may lead the gambler to attempt suicide.

Rosenthal (1989) also describes a fourth phase the *Hopeless* or *Giving Up Phase*- The gambler realises the futility of their gambling and now just gambles for the action that the activity provides.

Lesieur, H.R., Rosenthal, R.J. (1991).

Lesieur and Rosenthal (1991) outline a number of factors which they suggest are implicit and explicit to the gambling situation, and which may facilitate progression through the phases outlined in Table 2.

Implicit factors include; a big win (Custer, 1982), chasing losses (Lesieur 1979; 1984), a bailout (Custer, 1982) and “going on tilt” (Browne, 1989) (going on tilt is an expression which refers to an episode of severe losses through deterioration in play or loss of control).

Extrinsic factors that may also accentuate gambling problems include; using drugs or alcohol, the death of a friend or relative- or relationship breakdown, the birth of a child, physical illness- other life threatening situation, job or career disappointment, success (Bolen & Boyd, 1968; Bolen, 1970) and finally relationship problems.

However, whilst it is possible to describe the factors associated with problem gambling, differentiating between problem and pathological gambling still remains an uncertain task. Furthermore, whilst some people may not exhibit all the signs of pathological gambling, the impact of gambling on their lives may be just as severe, or in some cases even more so, than many people firmly defined as pathological gamblers. For example, a person who gambles only a few times a year and loses all their savings would not be defined as a pathological gambler using DSM-IV criteria. However, their gambling behaviour could still have a major negative impact upon their life and those around them.

Gambling as an Addiction ?

Gambling addiction theories are based around a model of behavioural addiction that sees pathological gambling as an addiction, similar to a chemically ingested drug addiction. For some people gambling can lead to a pattern of behaviour that is problematic, but can an activity be addictive in the way that some drugs can? Addiction to a type of behaviour as opposed to chemical substance is known as behavioural addiction, and it is only relatively recently that behavioural addictions have been recognised as true addictions. Griffiths (1995) notes that most official definitions of addiction still only refer to drug ingestion; for example

'Addiction is a state of periodic or chronic intoxication produced by repeated consumption of a drug, natural or synthetic.' (World Health Organisation 1980)

However, Griffiths suggests that comparing the elements of addictive behaviours to those of drug addiction highlights the similarities between the two. To demonstrate this idea further, Griffiths adapted the components of addiction as identified by Brown (1993), and compared them to the case of fruit machine addiction. These components include *salience* (where the activity becomes the most important aspect of the persons life), *euphoria* (where the person experiences 'getting high'), *tolerance* (where increasing amounts of the activity are required to get the same effect), *withdrawal symptoms* (marked by a craving and a state of severe discomfort when engaging in the activity is ceased or reduced in frequency), *conflict* (which can be internal to the addict or external involving other people in relation to the addict), and *Relapse and reinstatement* (which is the tendency to revert to patterns of behaviour which have become addictive).

The move towards the acknowledgement of behavioural addictions has led to broader definitions of what constitutes addictive behaviour, for example Marlatt, Baer, Donovan and Kivlahan, 1988:224) define addictive behaviour as:

“a repetitive habit pattern that increases the risk of disease and/or associated personal and social problems. Addictive behaviours are often experienced subjectively as ‘loss of control’- the behaviour contrives to occur despite volitional attempts to abstain or moderate use. These habit patterns are typically characterised by immediate gratification (short term reward), often coupled with delayed deleterious effects (long term costs). Attempts to change addictive behaviour (via treatment or self initiation) are typically marked with high relapse rates”

Gambling could according to this definition be classed as a type of behaviour that possesses an addictive potential, and this has been demonstrated by the numbers of people world wide seeking help for gambling problems.

One of the main problems with the idea of gambling as an addictive behaviour concerns the problem of differentiating between gambling as an addiction and as normal behaviour, i.e. when does behaviour cease to be normal and in fact constitute an addiction?

One way to differentiate between normal and excessive patterns of gambling is by examining the signs and components of addiction. If these factors are found to be present in relation to a person’s gambling behaviour then this may be indicative of problem gambling. There have been a number of attempts to define the components of

addiction, Carnes (1991) outlines ten 'signs' that may be indicative of addictive behaviour.

(See Table 3.)

Table 3.

10 signs of Addiction (adapted from Carnes, 1991)

- (1) A pattern of out of control behaviour
 - (2) Severe consequences due to behaviour
 - (3) Inability to stop behaviour despite adverse consequences
 - (4) Persistent pursuit of self destructive or high risk behaviour
 - (5) Ongoing desire or effort to limit behaviour
 - (6) Uses behaviour as a coping strategy
 - (7) Increased amounts of behaviour because the current level of activity is no longer sufficient
 - (8) Severe mood changes around behaviour
 - (9) Inordinate amounts of time spent trying to engage in behaviour and recovering from it
 - (10) Important social, occupational and recreational activities are sacrificed or reduced because of behaviour
-

Another way of examining addiction is to look at the factors that are usually present in chemical addictions and comparing them to problematic patterns of behaviour.

Brown (1988) outlined a series of components that could apply to both behavioural and chemical addictions see Table 4.

Table 4. Components of addiction

<p>Salience : The activity becomes the most important thing in the person's life and dominates thinking (<i>preoccupations and cognitive distortions</i>), feelings (<i>cravings</i>) and behaviour (<i>deterioration of socialised behaviour</i>). May be associated with loss of control.</p>
<p>Conflict : Disputes about the extent of excessive behaviour arise both between the addicted person and others around them, and within the addicted people themselves. Continual choosing of short term pleasure and relief leads to disregard of adverse consequences and long term damage which in turn increases the apparent need for the addictive attitude as a coping strategy.</p>
<p>"Loss of Control": Apparent inability to limit time or resources given to, or amount of, excessive behaviour, even when a decision appears to have been previously made to do so. Explainable in terms of salience and relief.</p>
<p>Relief : At a late stage, the effects of the addictive activity are so powerful that there is a rebound effect when it ceases (<i>withdrawals</i>) and when it is over the only way to avoid feeling more miserable than before (<i>to find relief</i>) is to do it again at the earliest opportunity. Continual choosing of short term pleasure and relief leads to disregard adverse consequences and short term damage, which in turn increases salience as the apparent need for the addictive activity as a coping strategy.</p>
<p>Tolerance : Increasing amounts of the addictive activity are required to achieve the former effects.</p>
<p>Withdrawals : Unpleasant feeling states and/or physical effects when the addictive activity is discontinued or suddenly reduced</p>
<p>Relapse and reinstatement : Tendency for repeated reversions to earlier patterns of addictive behaviour to recur and for even the most extreme patterns of typical of the height of the addiction to be quickly restored even after many years of abstinence or control.</p>

Brown, R.I.F. (1988). Towards a value free and psychologically centered concept of addiction. Paper presented to the Scottish Branch of the British Psychological Society, Glasgow.

Clearly these components could apply to behaviour as well as ingested chemicals (i.e., drugs), although Marks (1990) notes withdrawal symptoms from chemical addictions may involve physiological elements such as a runny nose and goose-flesh, and may also be substance specific. Marks suggests that whilst it is common for substance abusers to be addicted to several substances it is rare to see this pattern with behavioural addicts. However, there is still a large degree of commonality between many addictions. Donegan, Rodin, O'Brien and Soloman (1983) identify these commonalities as;

- The ability of the substance/activity to act as a reinforcer
- Acquired tolerance
- Physical dependence and withdrawal
- Affective contrast (euphoria/dysphoria)
- The capacity of the substance/activity to act as an unconditioned stimulus
- Capacity of states like arousal, stress and pain to influence use.

Pathological gambling was defined as a disorder, separate from disorders of impulse control, in the DSM-III-R (American Psychiatric Association, 1987). With the exception of chasing losses, diagnosis is based on the criterion used for drug dependency. Therefore, it is not surprising that studies have attempted to uncover causes that are common to both chemical and behavioural addictions in terms of biological, psychological and/or social roots (Jacobs, 1985). One area which has shown to be common to both types of addiction is low self regard and rejection by others (Milkman & Sunderworth, 1983; Jacobs, 1985) although it should be noted that these factors could again be caused by, rather than a cause of, the addiction.

Griffiths (1995) reports that to date only two studies have compared pathological gambling and drug addiction. Blaszczynski, Buhrich, and McConaghy (1985) compared pathological gamblers with drug addicts on psychological measures using Glossop and Eysenck's (1980) addiction scale based on the EPQ scale. General similarities were found between the two groups and Blaszczynski, Buhrich and McConaghy (1985) concluded that both were suffering from an affective disturbance characterised by anxiety, depression and high levels of neuroticism and psychoticism. Again, whether these are a cause or effect of the behaviour is not clear. Hickey, Haertzen and Henningfield (1986) compared pathological gamblers and drug addicts using the Addiction Research Center Inventory (ARCI) (Haertzen, 1974) and discovered that pathological gamblers after a win reported feelings similar to those encountered in drug abuse, in particular psychomotor stimulation.

Psychological addiction theories outline many factors that are linked to excessive gambling, although determining whether they are a cause or an effect of the gambling is difficult to assert. Psychological addiction theories offer a useful model for treating gambling disorders, as they have many commonalities with chemical drug addictions. Griffiths (1995) for example, suggests that behavioural addictions (such as gambling) could be treated in the same way as chemical addictions, and that the public need to be made aware of the addictive potential of some types of behaviour.

Furthermore, the paradoxical nature of addiction has been highlighted by studies that indicate that addiction to some types of behaviour may have positive benefits (Griffiths, 1996a). For example, if the behaviour does not produce physical harm to the individual or if it replaces a more destructive habit (for example an 'addiction' to jogging may help a person give up smoking). In this sense we should perhaps question whether or not the

notion of addiction is at all useful, considering the narrow definitions used and the relative ambiguity in defining the positive or negative effects. Furthermore, existing definitions of addiction may serve to exclude some people who need help, such as people concerned about their behaviour but who are not defined as addicts. Whereas, other people may be labeled as 'addicts' simply because they perform a behaviour more frequently than the norm dictates. These people will not necessarily have a problem with their pattern of behaviour and would not want or necessarily need help (e.g. *Star Trek* fans and transpotters).

TREATMENT OF PROBLEM GAMBLING

After reviewing theories of problem gambling it is necessary to consider how this behaviour can be treated. Treatments are varied and usually reflect the theoretical standpoint of the therapist or therapeutic institution. As noted previously problem gambling can be perceived as a disease and several treatments adopt a medical model of treatment, for example Gamblers Anonymous. Other treatments see problem gambling as a response to environmental factors, for example behavioural treatments. In between these two perspectives there are also a variety of other treatments that consider issues such as developmental influences and maladaptive thought processes. These various treatments will be briefly reviewed in turn.

Psychoanalytic Treatment

This was one of the first treatments developed for problem gambling. The psychoanalytic approach was most popular at the start of the twentieth century and reflects the major psychological perspective of that time. The success of this form of treatment appears to be rather limited (Halliday & Fuller, 1974). The psychoanalyst essentially sees the problem gambling behaviour as indicative of a neurosis (Bergler, 1957). The purpose of the treatments is to uncover the unconscious thoughts that are being masked by the gambling behaviour. Once identified, the therapist will help the gambler gain insight into their unconscious desires, and encourage them to challenge their patterns of behaviour. Treatment is typically lengthy, usually at least once a week

for a year, and consequently, tends to be expensive. More recent treatment programs of this sort have tended to combine the approach with other forms of treatment (e.g. behavioural) and have consequently had greater success rates (Rosenthal & Rugle, 1994).

Psychotherapy

This approach covers a wide range of treatments that can be broadly defined as ‘talking cures’ (Griffiths 1995a). Although there has been few published accounts of psychotherapeutic treatments for problem gambling it has, never the less, been very popular in the treatment of problem gambling and other addictive behaviours. (Taber & Chaplin, 1988). These therapies whilst being diverse have a common non-directive theme that encourages the gambler to discuss their needs and feelings. The typical goal is for the gambler to become more enlightened about themselves, and consequently, to develop more effective coping strategies. Psychotherapy can be conducted on an individual basis or as part of a group therapy session. Group sessions may be particularly effective as gamblers are given support by the group and come to realise that they are not alone in experiencing or dealing with their problems. Dr Robert Custer, one of the pioneers of gambling psychotherapy treatments summarised the areas of life where the gambler may need help. The acronym GAMBLING stands for **G**ambling, **A**lienation, **M**arital problems, **B**ehaviour problems, **L**egal problems, **I**ndebtedness, **N**eeds, **G**olessness. The aim of therapy in this way is to address issue surrounding all or some of these areas. (Griffiths, 1995a). Measuring the effectiveness of these types of treatments is difficult, particularly as they tend to be used in conjunction with other forms of treatment, for example a self-help group. It is also difficult to define what,

exactly, a successful outcome of such treatments may be (e.g. complete abstinence for a month or a year?).

Hypnotherapy

Griffiths (1992) is the only published case study of hypnosis as a treatment for problem gambling. Hypnotic suggestion is used to alleviate feelings of excitement and/ or tension that may be maintaining the gambling behaviour. This technique can also be used to promote excitement in relation to other, more positive activities e.g. playing sport. Griffiths (1992) reports a single case of problem gambler who completely abstained from all gambling after only two sessions. However, as Griffiths (1995) notes some people are more susceptible to hypnotic suggestion than others, and therefore this technique may not suit all clients.

SELF-HELP TREATMENTS

Gamblers Anonymous

Gamblers Anonymous (GA) is based on the model developed by Alcoholics Anonymous (AA). It is also probably the most well-known self-help group organisation catering for problem gamblers. GA treats problem gambling as an addiction, and as an incurable disease. Therefore, GA believe that problem gamblers can be taught to resist gambling, but, they will always feel compelled to gamble. The groups offer collective support to members and use only ex-gamblers as helpers. For some people it can become a way of life both socially and spiritually (Stewart & Brown, 1988). Members typically meet once a week and are encouraged to share their personal experiences with the rest of the group. One of the advantages of GA for many people, is that they make

no charge for their services, it is completely free. However, it has been noted that this treatment may not suit some people because of spiritual references to a 'higher power' (Moody, 1989). GA groups aim to address all aspects of the gamblers' problem behaviour, and focus on building and maintaining social networks that exclude gambling. Members are further encouraged to call on each other for support. Success rates of GA members are difficult to establish as GA only maintain figures relating to those who continue going to meetings, drop out rates are excluded. Furthermore, the need for strict anonymity precludes the keeping of any records that could be used to identify members. Measurement of success is also difficult to establish. GA would only include those who abstain completely, despite the fact that some gamblers may gain control over their gambling behaviour and continue gambling at a more personally acceptable level. Stewart (1988) found that 50% of members leave in under three weeks, and only 30 percent remain after ten meetings. Only 8% were able to abstain completely from gambling for a year. Brown (1986b; 1987a; 1987b; 1987c) in a more qualitative set of studies found that 'drop-outs' reported that they thought they were 'cured', or circumstances prevented them from continuing with their attendance (e.g. lack of childcare). Some 'drop-outs' also reported that a total gambling ban was too harsh. Brown concluded that GA was probably most effective for problem gamblers with severe problems rather than those developing problems. In addition, Brown suggested GA worked best for those gamblers who were not likely to relapse as GA did not cope well with those people.

GA is usually only geared towards adult gamblers. However, Griffiths (1990) reported that some young fruit machine players in the UK had attended GA meetings, although

they found the experience oppressive. GA meetings are typically, in the UK at least, frequented by adult horse race betters.

Gambling help-lines in the UK

To date there have been only two national help-lines for problem gamblers in the UK. The first (and which is still operational) was set up in 1982 by Gamblers Anonymous. This service has traditionally been staffed by members of the GA fellowship and aims to encourage those who call to attend a GA meeting. The second help-line was set up in the late 1980s by the trade organization BACTA (the British Amusement Catering Trades Association) in response to research suggesting that fruit machines were problematic for a small proportion of adolescents. This proved to be unsuccessful and more recently BACTA terminated their help-line in favour of the new GamCare National Help-line.

GamCare (the National Association for Gambling Care, Resources and Training) state that the main reasons why they developed a national help-line service was because:

- * there was no broad based help-line for problem gamblers in the UK
- * the opportunities to gamble were increasing both in terms of new products (e.g. the National Lottery, instant scratchcards, spread betting) and availability
- * other telephone advice lines were reporting an increase in the number of problem gamblers calling since the introduction of the National Lottery
- * a growing number of counselling and caring agencies were asking where help was available in response to their contact with problem gambling issues

* caring agencies, the government and sections of the gaming industry were encouraging the setting up of a national help-line

* resources to properly establish such a service were likely to be available

(Griffiths, Scarfe, & Bellringer;1999: p85.)

The help-line (run by GamCare) is staffed by trained counsellors and became operational on October 29, 1997. The figures GamCare provided here cover the period of the first 12 months of operation up to the end of October 1998 (see Table 1.). GamCare report that as much information about every call received to the help-line was logged onto a monitoring form. Counsellors did not elicit specific personal information, but any relevant information given by the callers was recorded on the monitoring form (e.g. type of problem gambling, age and gender of caller etc.). This means that some information may not be known about callers (e.g. age) if the caller did not volunteer it. The results provided were based on information given by the callers themselves and represent the first telephone help-line statistics ever published in the UK relating to gambling problems. GamCare suggest that the total number of callers reflects the fact that advertising of the service has been limited during this initial period. Furthermore, they add that the service only runs for 12 hours a day (10am-10pm).

GamCare reported that the help-line received a total of 1729 calls. Of these, 51% were from problem gamblers themselves (90% male; 10% female) and a further 26% of calls were from relatives of problem gamblers. The remaining calls came from other professionals handling problem gambling cases (13%), attempted calls, e.g., people calling and then putting the phone down due to being scared of actually talking (4%), information requests (3%) and the media (3%). Fruit machine gambling appeared to be

most problematic for the callers as a whole and for particular sub-groups such as adolescents (82%) and women (52%) (Griffiths, Scarfe, & Bellringer; 1999).

It is difficult to adequately measure the effectiveness of help-line services. Callers to help-lines usually remain anonymous so follow up studies are generally impossible to conduct. Furthermore, help-line callers are often 'treating' themselves, or undergoing other therapies at the same time e.g. self-help groups. However, it seems apparent that help-line services provide a useful 'front line' service for problem gamblers. This service can include counseling, providing information (e.g. dealing with debt) and even referral to other treatment services. Finally, it is worth noting that this service provides a useful means by which to monitor the prevalence of gambling problems. In particular, the impact of new forms of gambling can be monitored (e.g. internet gambling), and this information can be used to focus existing treatment programs.

Table 1. Age breakdown of gamblers who called the GamCare help-line and who volunteered their age (n = 1266)

Gambling type	Age				
	under 18	18-25	26-39	40-60	60+
<i>Fruit machines</i>	128	275	211	76	12
<i>Off-course betting</i>	17	92	303	140	19
<i>Casinos</i>	6	18	70	40	16
<i>Scratchcards</i>	5	7	14	5	2

MINIMAL INTERVENTIONS

These cover a wide range of self help treatments with minimal professional interaction (e.g. a self help manual). These types of intervention have been popular in treating other addictive behaviours such as alcoholism (Miller, Gribskov & Mortell, 1981). Heather (1986) noted that there are several factors that have influenced the rise in popularity of minimal interventions; the rising cost of medical services, an emerging ideology of self-help backed by psychological theory, disillusion with the medical model and the observation that some more traditional treatments are, at best, only marginally effective.

BEHAVIOURAL TREATMENTS

These treatments attempt to address learned maladaptive behaviour by teaching the person to 'unlearn' that behaviour in favour of a more appropriate pattern of behaviour. These treatments are largely based on the principles of classical conditioning and involve pairing either unpleasant feelings with gambling and/ or pleasant feelings with non-gambling (Griffiths, 1995a). Walker (1992a) reviewed behavioural treatments and outlines the following therapies.

Aversion therapy

This therapy pairs an unpleasant stimulus, such as an electric shock or chemical emetic, with the gambling behaviour. Electric shocks can be administered whilst the gambler is actually gambling (e.g. on one-armed bandits, Barker & Miller, 1968) or whilst thinking about or watching gambling activities (e.g. reading a newspaper's betting pages, Barker & Miller, 1968). These treatments have been found to be effective in the short-term, but long term success relies on the gambler developing more adaptive coping strategies (Lester, 1980).

Desensitisation therapy

This generally involves getting the gambler to relax in a gambling type situation and to avoid having to complete a cycle of learned behaviour (Griffiths, 1995a). There are several variations of desensitisation treatments that have been used with gamblers; such as *in vivo* sensitisation (Blaszczynski, 1988), satiation therapy (Peck & Ashcroft, 1972) and systematic desensitisation therapy (Kraft, 1970). However, by far the most popular and successful treatment has been imaginal desensitisation. McConaghy (1980) describes the use of imaginal desensitisation for gambling treatment. McConaghy suggests that people build neuronal models for repetitive behaviour. This leads to a behavioural completion mechanism (BCM) so that once initiated the behaviour must be completed, otherwise unpleasant cognitive effects will occur. These BCM's may be triggered by environmental features, such as walking past a casino. Therefore, the gambler is taught to eliminate any BCM's associated with gambling activities. Blaszczynski (1988) in a comparison of several behavioural therapies found that 43 percent of gamblers treated with imaginal desensitisation improved. However, it should be noted that only 63 of the original 120 gamblers treated could actually be traced and followed up.

Controlled gambling

In complete contrast to the medical model of problem gambling, as advocated by Gamblers Anonymous advocates of controlled gambling suggest that a gambler can be taught to control their gambling behaviour. Consequently, the gambler may not have to consider complete abstinence from gambling (Montgomery & Kreitzer, 1968).

Dickerson (1984) in a comprehensive review of behavioural treatments notes that such a treatment programme should focus upon:

1. The gambler choosing not to gamble when opportunity occurs.
2. Choosing to stop when losing.
3. Involvement in non-gambling activities.

(Dickerson, 1984, p.112)

There have been few reported evaluations of such programs, although Dickerson and Weeks (1979) and Rankin (1982) both report successfully treating a gambler by such methods.

COGNITIVE TREATMENTS

Cognitive treatments aim to challenge the illogical thought processes associated with problem gambling. Cognitive therapies currently hold a widespread popularity in the field of clinical psychology, and in psychology in general. However, this application has not extended considerably into the treatment of problem gambling. As Griffiths (1995) notes, this is surprising considering problem gambling is characterised by illogical thinking. Walker (1992b) suggested two cognitive approaches to treat problem gambling behaviour – thought stopping and cognitive restructuring. These will be considered in turn followed by cognitive behavioural therapy, motivational interviewing, relapse prevention and audio playback therapy.

Thought stopping

Maurer (1985) provides the only published example to date of the application of this therapy to problem gambling. The gambler is encouraged to monitor their thought processes, and when they think of gambling, a thought stopping or thought replacement routine is instigated. A common practise is to snap an elastic band (worn on the wrist) and to say 'stop' out-loud. The intrusive thought can then be replaced with a practised positive thought instead e.g. 'I feel like going to the bookies' can be replaced with 'I will play my favourite CD.'

Cognitive restructuring

To date there are no published examples of this treatment in relation to problem gambling. However, Walker (1992b) outlines what he feels would be a theoretically effective program, involving four distinct steps:

1. The gambler must stop gambling (although it may be resumed at a later date).
2. Alternative activities to gambling are initiated or resumed.
3. A plan for repayment of debts must be initiated.
4. The motivation to gamble must be moderated or eliminated.

Cognitive behavioural therapy

A case by Toneatto and Sobell (1990) is currently the only published example of the use of this type of treatment. The treatment involved challenging erroneous gambling beliefs by focusing on three major themes of cognitive behavioural intention.

1. The belief that the gambler could discover a foolproof betting system.
2. The belief that gambling losses could be balanced by future winnings.
3. The belief that the financial losses as a result of gambling were minor.

Toneatto and Sobell (1990) found the treatment to be successful in preventing gambling after ten sessions, measured at a six month follow-up. However, we should again be cautious to draw too many conclusions from a single case study.

Motivational interviewing

This is another example of a cognitive therapy that has not, as yet, been used to treat problem gambling. However, as Griffiths (1995) notes, this type of therapy incorporates a feature that may be well suited to challenge patterns of problem gambling behaviour. Motivational Interviewing (MI) concentrates on Prochaska and DiClemente's (1982) six-stage wheel of change. The therapy focuses on the motivational aspects of changing the client's behaviour, and uses a mnemonically structured list of eight motivational strategies (A-H). Giving Advice, removing Barriers, providing Choice, decreasing Desirability, practising Empathy, providing Feedback, clarifying Goals and active Helping. These strategies are used in conjunction with the five general principles of MI (expressing empathy, developing discrepancy, avoiding argumentation, rolling with resistance and supporting self-efficacy). The goal of the therapy is to resolve ambivalence and motivate the client toward change. Again, this therapy holds promise for treating problem gamblers, but as yet remains untested.

Rational emotive therapy

Rational emotive therapy (RET) was developed by Albert Ellis during the 1950's (Ellis, 1962) as a response to, what he regarded, as the ineffectiveness of psychoanalysis. He advocated a more active role for the therapist and suggested challenging the clients'

eroneous logic. However, the emotional aspect the therapy is as important as the rational aspect. The therapy incorporates aspects from various theoretical orientations depending on the specific needs of the client. Bannister (1977) used RET to treat a 46 year old man combining RET with covert sensitisation. Initially the focus of the therapy was to encourage the client to develop a more internal locus of control. The therapy also encouraged the client to develop a strong association between gambling and the negative consequences of gambling. The negative consequences were reinforced through covert sensitisation. The client was taught to associate an unpleasant visualisation, in this case being thrust head first into human excrement, with the thought of gambling. When the client thinks 'I'll never gamble again' the visualisation of escaping the unpleasant scene is introduced. Bannister reported that this technique was successful in deterring this particular gambler from returning to any gambling behaviour.

Relapse prevention

According to Marlatt and Gordon (1985) if treatments for addictive behaviours only focus on the actual behaviour then the client is likely to relapse. The reason being, that addictive behaviour may be symptomatic of more underlying problems such as; low self-esteem, inadequate stress coping skills and poor impulse control. Therapy is based around three stages that attempt to; assess the clients current cognitive and affective states, address the clients problems with coping skills and focus on issues that may lead to later relapse. The goal of such a treatment need not be total abstinence from gambling, and could instead focus on maintaining a controlled level of gambling. Again there may be a promising potential for such a technique in the treatment of problem gamblers, but as yet there are no published accounts of its application in this area.

Audio playback therapy

Another, untested therapy has been suggested by Griffiths (1995) specifically for use with problem gamblers. Griffiths analysed the cognitive biases exhibited by adolescent fruit-machine players, using the 'thinking aloud method.' He found that regular gamblers exhibited more irrational verbalisations than non-regular gamblers. When asked if they would like to hear the tape of their vocalisations four of the participants agreed. All of the four participants were surprised by the way they vocalised and expressed their thoughts whilst playing fruit-machines. Later, in an anecdotal incident, Griffiths happened to meet one of the four gamblers who had heard their taped vocalisations. This particular individual had sought out help for their gambling behaviour and had subsequently quit gambling altogether. The motivation for this change in behaviour was attributed to hearing the irrational vocalisations they had exhibited on the tape. No such form of treatment has yet been clinically developed. However, such an insight into personal erroneous beliefs may prove to be therapeutically useful, particularly if used in conjunction with other forms of treatment (Griffiths, 1995a).

Paradoxical intention

Victor and Krug (1967) report the case of a 36 year old male who they treated using the paradoxical intention technique. The gambler was told exactly how to gamble e.g. how much to bet etc., and informed that they should gamble regularly. According to Frankl (1962) the idea is to remove all forms of control from the client in relation to their

gambling behaviour. Walker (1992a) argues that this effectively removes the excitement from the gambling activity. If the gambler refuses to obey the therapist then they are abstaining from gambling by their own free will. Victor and Krug indicated that the treatment effectively halted their clients gambling behaviour.

Residential Programs

The Gordon House Association (GHA) was founded in 1971 and is the UK's only specialist and dedicated residential facility for problem gamblers. Although there are a handful of UK treatment centres that provide treatment facilities to help problem gamblers (such as the Promis Recovery Centre in Kent), they tend to treat addicts of all types rather than gamblers specifically. Furthermore, the approach of these organisations in treating problem gamblers tends to be based around the twelve-step model favoured by such organizations as Gamblers Anonymous (GA).

The first Gordon House was named after its founder, the Reverend Gordon Moody. (In the 1960s, Moody also helped to establish GA in the UK). The GHA was established as a charity and from its inception it has had strong links with the judiciary. It very quickly became a refuge for problem gamblers who were released, or diverted, from prison. The GHA's intention was to break the cycle of gambling, crime, and imprisonment. It has successfully treated hundreds of chronic problem gamblers. The GHA ethos has not changed since its establishment. The GHA program is available to any male problem gambler who is assessed as being suitable to take up residency (entry for female problem gamblers is currently under review). The aim of the GHA is to provide an accountable service that reduces problem gambling and the harm done by such gambling.

The objects of the GHA are to :

- provide support and effective residential therapies to those most affected by problem gambling
- provide, where possible and practicable, effective outreach for those waiting to join, or who have recently left, the residential program
- undertake and facilitate reviews, studies and research that may lead to a better understanding of the nature and effects of problem gambling and its treatment
- provide, where possible and practicable, effective outreach and therapeutic interventions to those for whom the residential program is not appropriate
- undertake tasks (alone or in conjunction with others) that will reduce the harmful social impact of gambling.

(Bellringer, 1999).

The Gordon House Association therapy program

The GHA program is built around a nine-month period of residency followed by support when the gambler moves back into the wider community. Progression through the program has been split into five distinct phases. These are; initial assessment (1-2 weeks), 'coping with today' (12 weeks), 'coping with yesterday' (12 weeks), coping with change (12 weeks), coping with tomorrow (12 weeks), and 'coping on my own' (ongoing). Further to this, on a basic level, the GHA provides:

- a safe haven ("a place to hide") at a time when events have reached "rock bottom"

- a structured program that enables the re-establishment of a routine
- a framework to understand their problem gambling and why they did it
- help (practical, legal, emotional, etc.) in facing problems that have been created by problem gambling
- practical help in taking responsibility for themselves and previous actions created by problem gambling

Monitoring and evaluation of the service has revealed that problem gamblers who participate in the therapeutic program derive many benefits, and value staying in a safe and supportive environment among others who understand gambling dependency.

Farrell-Roberts (1997) reported that the most highly rated aspects of living at the GHA are perceived as being:

- Socialising with, and receiving day-to-day support from, other residents
- Individual sessions with keyworkers and provision by them of day-to-day support
- Group meetings to share information, views and to explore issues
- Individual counselling sessions.

As with all therapeutic communities, the potential benefit and help to residents is affected by whichever individuals are going through the program at that particular time. In this respect the GHA is no exception. Negative behaviour and attitudes by just one or two residents can seriously disrupt the progress of others in their attempt to break their gambling dependency. However, the GHA is a unique residential facility providing specialised and dedicated help to problem gamblers and has an important place in the UK's network of national support services for problem gambling.

**PSYCHOLOGICAL THEORIES OF GAMBLING: WHY DO PEOPLE
GAMBLE?**

Psychoanalytic Theory

This psychoanalytic perspective was the first to examine gambling in a psychological sense. In as early as 1914 Von Hattingberg suggested that the tension and fear involved in gambling may be eroticised. Stekel (1924) noted the similarity between gambling and alcohol abuse, and suggested that gamblers were trying to tempt fate, whereby a win gave the illusion of control over the future, implying that the other secret wish for love would also be granted. It was Freud (1928) who made psychoanalytic theory prominent in his essay on Dostoevsky. However, it must be noted that the theory was a generalisation made on the basis of a single case study. In reviewing Freud's work Rosenthal (1987) noted that gamblers may gamble for the action rather than money, and may in fact gamble to lose. This was explained as punishing behaviour because of ambivalent feelings towards the father (which Freud termed '*moral masochism*'). Freud saw masturbation (or the masturbation fantasy) as the main addiction and suggested that gambling was a secondary addiction. Bergler (1957) further suggested that pathological gambling was a form of self punishment, derived from guilt about rebellion against parents, thus the gambler is craving rejection and defeat. How this can relate to adult pathological gamblers is not clear, unless the guilt is latent. Lesieur and Custer (1984) dismiss the idea of the masochistic pathological gambler and point out that many pathological gamblers start with a winning streak, which if they were true masochists they would not endure.

Psychoanalytic gambling theories are not generally open to empirical testing, and tend to remain hypothetical, based on introspection and speculative interpretation. They do not explain why people begin to gamble in the first place, why they may change from being social gamblers to problem gamblers, or why gambling may be chosen as punishment over other activities. The psychoanalytic theory of gambling has declined in popularity over the years, and may now largely occupy the place of providing a historical background to gambling theory.

Behavioural / Learning Theories

Behavioural theories became prominent in the early 1950s and are concerned with examining reinforcing behaviours. Behavioural theories suggest that repetitive and/or excessive behaviours are a type of conditioned response i.e., a type of learned behaviour. Skinner (1953) suggested that people continue to gamble because they have undergone a process of operant conditioning. The excitement of gambling, together with intermittent rewards, provides a very strong reinforcement schedule. It has been noted that gamblers who have early large wins are more likely to continue their gambling behaviour (Custer, 1982). However, it is difficult to see how reinforcement occurs when the person is losing heavily. Dickerson (1984) suggests that it is not only winning which may be rewarding, the process of gambling itself may be rewarding. It has been observed that if the gambler perceives that they are continually nearly winning, rather than continually losing, that this in itself can be rewarding (Griffiths, 1991; Moran, 1979; Reid, 1986). The excitement produced from the gambling action may, in itself, be a sufficient enough reward for conditioning to take place (Lea, 1987). Intermittent rewards such as those typically associated with gambling activities, have been demonstrated as having stronger conditioning effects than consistent rewards (Bijou,

1957; Keppel, Zavortink & Shiff, 1967). This is referred to as the partial reinforcement extinction effect. Amsel (1967) suggested that gambling can be explained as a sequence of frustrations (losses) A consequent win reduces the tension, making the win significantly rewarding (Lea, Tarpay & Webley, 1987; Reid, 1986).

Behavioural / learning theory provides an interesting insight into the conditioning effects inherent in gambling, and highlights how the behaviour is rewarding. It illustrates how gambling behaviour is reinforced over time and suggests ways that this behaviour may be diminished through behavioural treatment strategies (e.g. flooding and aversion therapy) However, the theory does not adequately explain why people begin to gamble in the first instance, or why a person may resume gambling after a long period of absence. Furthermore, it does not explain why some people and not others develop problems with their gambling behaviour under similar conditions.

Social learning theory

Social learning theory (SLT) goes some way in explaining the inadequacies of other theories in terms of the development of gambling behaviour. According to SLT observing the behaviour of others may produce observed learning (Bandura, 1965). This observed learning would account for the development of novel behaviour (e.g. gambling on a lottery). The 'model' itself could be a person, an animated character or even an object (e.g., cars and trains). For adolescents these 'models' could be 'remote' persons such as pop stars, models, and television or sports celebrities. This observational learning can also take place without any direct reinforcement (Bandura, 1965). However, whether or not this learning results in similar behaviour depends on a number of factors. The appropriateness of the models' behaviour as perceived by the observer appears to be particularly significant. Males are typically more likely to imitate

aggression from a male model than a female model (Bandura, 1965). This may be due to sex role stereotyping in Western societies. How relevant the model is to the learner also appears to reflect the learner's behaviour. Similarity between the model and the observer was shown to be an important variable for increasing modeling behaviour (Bandura, 1965). It has also been demonstrated that the friendliness of the model to the observer will also affect the learner's behaviour. The friendlier the model the greater the modelling effect will be (Yarrow, 1973). The more consistent the model's behaviour, the more likely they are to be mimicked, and powerful models are more likely to be mimicked than weaker models. Observation of rewards being given to models performing unusual or striking behaviour has also initiated a higher observer imitation rate (Yarrow, 1973). Reward or punishment was a major factor in the findings of Bandura (1965). Bandura suggests that the perceived outcome of an event can significantly influence the observer's behaviour. Models who were rewarded for their behaviour were imitated to the same extent as those models who were not rewarded. However, models who were seen to be punished for their behaviour were far less likely to be imitated. The most striking imitative behaviour was demonstrated when the observers were rewarded for their mimicking, this was regardless of whether the model was shown being rewarded, punished or neither. This seems to suggest that the observer learns the model's behaviour regardless of the outcome for the model. However, whether or not the actual behaviour will be replicated by the observer depends on the perceived consequences for the observer, and the factors outlined above.

In relation to gambling, SLT could operate at a number of levels. Gambling in Western cultures is often a stereotypically male pursuit. This pattern of male gambling may be perpetuated by young people, through the observation of gender roles. Problem

gambling has also been found to be a largely male phenomena, this again may reflect observation and identification of gambling as a male pursuit. Gambling is an activity whereby rewards are constantly being given out (usually to other people), the observation of rewarding gambling behaviour could facilitate this behaviour in the observer. Furthermore, an initial win by a novice player could reinforce this behaviour considerably. Advertising of gambling activities may also reinforce the concept of winning (rewards), and emphasise the participation of potentially idolised people such as 'pop stars' and television celebrities.

Learning theory has developed considerably over the years and today places greater emphasis on the association between social and cognitive factors. *Social cognitive theory* Bandura (1986) emphasises a view of the person as active and as using cognitive processes to represent events, anticipate the future, choose amongst various courses of action, and communicate with others (Mischel & Shoda, 1995). The emphasis of social cognitive theory is on what Bandura (1986) refers to as reciprocal determinism, that is, behaviour is driven through an interaction between the person and their environment. Support for learning theories are provided by the studies that have shown that children whose parents gamble are more likely to gamble themselves (Derevensky & Gupta, 1996; Gupta & Derevensky, 1997). However, it is important to consider that not all problem gamblers have parents who are, or were, problem gamblers or even social gamblers. Similarly, not all children with parents who are problem gamblers grow up to be problem gamblers themselves (Derevensky & Gupta, 1996; Gupta & Derevensky, 1997). Therefore, it is likely that some people are more predisposed to develop problem gambling behaviour. Alternatively, problem gambling may be a symptom of other underlying problems. It has been suggested that excessive gambling behaviour may be

used as a coping strategy by some problem gamblers (Gupta & Derevensky, 1997; Gupta & Derevensky, 1998). That is, a problem gambler may in fact use gambling as a means of 'blocking out' other problems in their lives, for example, family conflicts.

Cognitive Theory

Cognitive theories of gambling emphasise the perceptions of the gambler and argue that errors in perception may be a cause of problem gambling. Wagenaar extensively highlighted the importance of cognitive factors and suggested that;

'...the nature of the gambling paradox is cognitive. Gamblers are motivated by a way of reasoning, not by defects of personality, education or social environment.'

(Wagenaar, 1988: 3)

Langer (1975) noted that some people may hold an illusion of control, in that they regard chance events (such as most forms of gambling) as controllable. This has been supported by a number of other studies. For instance, Henslin (1967) noted that dice players behaved as if they could control the dice, demonstrating a belief in personal skill over random factors. Langer further suggested that there may be factors in some chance activities that contribute to an illusion of control, for example factors of choice and familiarity with the situation. This is supported by Langer and Roth (1975) who noted that early wins in a coin tossing game led to a belief that there was a skill factor to playing the game. Griffiths (1991) pointed out that fruit machine designers, in particular, may exploit this illusion of control in the design of fruit machines. This may be achieved by giving the machines names that suggest a skill element for example

'Fruit Skill' and 'Skill Cash', and by providing 'pseudo skill buttons' (e.g., 'nudge' and 'hold' buttons).

As well as having an illusion of control some gamblers may also hold erroneous perceptions. Gilovich (1983) demonstrated that gamblers often transform their losses into near wins, so they perceive themselves as frequently nearly winning rather than nearly always losing. Reid (1986) argued that the gaming industry may deliberately design games (for example, fruit /slot machines and scratchcards) to produce frequent near win situations thus reinforcing this belief. It is suggested that the experience of nearly winning may provide a similar feeling as winning but at no cost to the game's owners. This effect has been termed a 'heartstopper' because of the increase in vicarious arousal produced (Moran, 1979). Furthermore, the experience of nearly winning may produce frustration, which Kahneman and Tversky (1982) suggest may cause cognitive regret. According to Loftus and Loftus (1983) this can be extinguished by continued playing and so a spiral of gambling activity may be developed.

Heuristics may also play a large part in the development of gambling behaviour.

Cornish stated that;

'...it is perhaps unfair to dismiss unsuccessful strategies for simplifying the gambler's task as merely 'fallacies'. More properly, they might be regarded as heuristic devices which, developed from everyday experience and proven in relation to it, are brought into the gambling setting where they may not always be appropriate....'

(Cornish 1978: 100)

Tversky and Kahneman (1974) outline three main types of heuristic that gamblers may frequently use inappropriately; The *representative heuristic* whereby people misconceive the relationship between samples drawn from a population and the population itself (Tversky & Kahneman, 1971). For example, the 'gambler's fallacy' whereby a person assumes that the outcomes of a small sequence of random events can be applied to random processes in general, hence over typifying the representativeness of small samples. The *availability heuristic* refers to the ease by which similar instances can be recalled and from which probability judgements are affected (Wagenaar, 1988). For instance, lottery winners are highly publicised, and therefore, easier to recall than the millions of losers. Finally the *adjustment from an anchor heuristic* refers to a tendency to overestimate the probability of a large number of sequential wins based on the evidence of one or two early wins.¹ However, the problem with heuristic explanations of gambling is that they do not allow us to predict what choices gamblers will actually make. We can not say which strategies will be used when, or even what combination of strategies will be used. Furthermore, the choice of strategy in a given situation can result in completely different outcomes (Wagenaar, 1988). Nevertheless, heuristic explanations do help emphasise the procedures and decision making processes that the gambler may undertake, and given other situational and personal information may have a predictive value. Heuristic strategies may, for example, be identified and addressed during a therapy session.

Normative decision theory suggests that the decision to do something is based on a choice of alternatives, depending on their expected outcomes. Choice is made on the basis of two factors; the utility of the particular choice, and an estimate of the likelihood

¹ For a more complete overview of heuristics used in gambling see Wagenaar W.A. (1988) *Paradoxes of gambling behaviour*. London: Erlbaum.

of that utility occurring. When combined, these two factors portray the attractiveness of a particular option. In relation to gambling, normative theory suggests that the mean result of a gamble will be obtained if the activity is undertaken an infinite number of times. However, according to this theory people would only gamble when the expected outcome was high, and this is not always the case. Wagenaar (1988) argues that utility may not be equal to monetary value, but points out that when gamblers violate the axioms of utility, normative decision theory can no longer provide an adequate explanation for gambling behaviour.

The *sunk cost effect* refers to a greater tendency for an individual to continue an activity because a certain investment has been made of either money, time or effort, despite their irrelevance to present events. Arkes and Blumer (1985) suggest that the psychological reasoning behind this behaviour lies in the wish not to be wasteful and outline a number of experiments that demonstrate this notion. Thaler (1980) argues that sunk cost involves two features of prospect theory (Kahneman & Tversky, 1979). The first feature involves the relationship between objectively defined gains and losses, and the subjective value that is placed on them. This is supported by the findings of McGlothlin (1956) who demonstrated how people betting on horses at racetracks are more likely to go for 'longshots' at the end of the day after they have had several losses. The other feature of prospect theory that may be present in sunk costs is the *certainty effect*. That is, people overestimate the probability of positive outcomes, and underestimate the probability of negative outcomes (Kahneman & Tversky, 1982). However, Arkes and Blumer (1985) note that prospect theory can not account for the psychological reasoning behind why people find sure losses so aversive and yet continue to invest in sunk costs. Although, they suggest that one reason why people may do this is that to stop investing

is an admission that they were wrong, and they may be unwilling to acknowledge this fact. This could also be explained in terms of cognitive regret (Kahneman & Tversky, 1982) that suggests a person may continue to gamble rather than face the facts about past gambles (which they have lost). Arkes and Blumer (1985) suggest that in some cases 'entrapment' may also be a factor instigating sunk cost effects, but only in factors where continuing losses are endured because of the hope of rescue later by a further investment.

Sunk cost effects may explain why some gamblers continue despite heavy losses, particularly if erroneous heuristic strategies are also employed. However, it does not explain why people begin gambling, or why only some people gamble to excess.

Luck, Chance and Skill

Three other dimensions that may influence a person's cognitions about gambling concern beliefs about *luck*, *chance* and *skill*. It has been noted that gamblers often do not understand the principles of probability and generalise the findings of small samples to larger samples. The 'gamblers fallacy' for example, when a person believes that 'tails' is more probable than 'heads' after a succession of 'heads,' is a common example (Wagenaar, 1988). This phenomenon is described in detail by a variety of heuristic and bias models such as 'the law of small numbers' (Tversky & Kahneman, 1971), 'the representativeness principle' (Tversky & Kahneman, 1972), 'subjective randomness' (Wagenaar, 1970), and 'sequential response bias' (Wagenaar 1970). Wagenaar (1988) suggests, that in the minds of many people, luck and chance seem to act as real causes, and that luck is the factor that determines chance outcomes. Therefore, a succession of wins is 'good luck', and a succession of losses is 'bad luck'. In a series of studies investigating perceptions of skill and chance in gambling (Keren & Wagenaar, 1985;

Wagenaar, Keren, & Plet-Kuiper, 1984) it was found that participants found it difficult to differentiate skill and chance factors without reference to a third factor- luck. Luck was described as something that cannot be forced to happen but instead appears and disappears. It can be lost by using it unwisely, you may not realise you have it, and you may not realise it has gone and lose your winnings. When asked to report on what percentage luck, skill and chance influenced a gambling outcome, participants typically suggested luck accounted for 45%, skill 37% and chance only 18% (Keren & Wagenaar, 1985). Clearly perceptions of luck may play a major role in a decision to gamble, and belief in luck or skill may constitute a reason to begin gambling in the first place.

Attitudes and Behaviour

The relationship between attitudes and behaviour may be of vital importance for the study of gambling behaviour. Research examining the link between attitudes and behaviour has led to the development of predictive models aimed at demonstrating how a person's attitudes can provide a reliable indication of their actual behaviour. The theory of reasoned action (Fishbein & Ajzen, 1973) demonstrates how a person's actions are controlled by their behavioural intentions. These behavioural intentions are in turn derived from a number of cognitive components. *Personal beliefs* about the behaviour will be derived from the person's expectation of the outcome of performing the behaviour, and their evaluation of that outcome. The *subjective norm* concerns the person's perception of how others would view the behaviour, and the individuals' motivations to comply with social convention. The theory of reasoned action has shown to be an accurate predictor of a person's behaviour in a number of areas such as family planning behaviour (Davidson & Jaccard, 1975) cigarette smoking (Norman & Tedeschi,

1989) and gambling behaviour in adolescents (Moore & Keis, 1997). The theory of planned behaviour (Ajzen, 1988) was later developed to include not only personal beliefs and subjective norms, but also a component of *perceived behavioural control*, that is the extent to which the person believes that a behaviour is actually attainable or possible. When this theory is applied to gambling attitudes we should be able to predict the likely outcome of a person beginning gambling behaviour.

However, the problem of the direction of causation arises when we try to discover whether the attitudes cause the behaviour or the behaviour cause the attitudes. In psychology we can never be sure that one variable directly changed another variable on its own as we can in (say) chemistry. With people, there are always several factors that will influence this process such as culture, experience and personality differences. Furthermore, not only can attitudes influence behaviour, but also behaviour can influence attitudes. Fazio (1986;1990) suggested that direct behavioural experience with an attitude object will lead to the formation of attitudes, that are more predictive of behaviour than attitudes based on indirect experience alone. Fazio argues that attitudes based on direct experience are held with more certainty and are easier to recall. Therefore, the strength of the attitude is based on the strength of the association between the attitude object and the person's evaluation of that object. Festinger (1957) also highlighted the link between attitudes and behaviour. He observed that when a person's behaviour and attitudes were inconsistent that they would experience 'cognitive dissonance', an unpleasant state that the person will then strive to alter by changing either their attitude or their behaviour. Therefore, forming attitudes that are irreconcilable with gambling should discourage the development of such behaviour, or help distinguish current gambling behaviour.

However, it could be argued that perhaps a high degree of association between attitudes and behaviour simply indicates that these attitudes are a rationalisation of the preceding behaviour. It is important to consider that before someone embarks on any kind of behaviour that they must first of all have some knowledge about the activity, and must also be motivated to conduct the behaviour. In this sense the person will already have an attitude toward the behaviour. In addition, it may well be that the behaviour itself will also further shape these attitudes. Fazio (1986; 1990) demonstrated that direct behavioural experience with an attitude object will affect attitudes far more strongly than indirect experience alone. These experiences will by definition be more vivid and accessible than indirect experiences. For example, if you burn your hand on a cooker you are more likely to remember the event (and be more careful in the future) than if a friend burns their hand and then tells you about it later. So the link between attitudes and behaviour can go both ways. The point is that if a person holds a negative attitude toward a certain behaviour, then they are far less likely to actually perform the behaviour. This stems from a fundamental need within individuals to maintain consistency between their thoughts and actions. If thoughts and actions contrast the person will experience 'cognitive dissonance', a distressing state that will be avoided whenever possible. It is perhaps this consistency between our thoughts and actions that allows the well functioning individual to maintain a coherent sense of identity.

Changing people's attitudes to alter their behaviour is not a new idea and is commonly employed in advertising, political campaigning and public education programmes. Therefore, it may be possible to manipulate one or all of the three attitude factors defined by the theory of planned behaviour to deter a person from ever gambling in the

first place. This theory may be particularly useful in preventing young people from beginning gambling. The critical point in any such undertaking is identifying the key attitudes and how they might be changed. However, we must consider that once the gambling behaviour becomes habitualised or problematic, then attitudes may play a diminished role in determining gambling behaviour. For example, problem gamblers often hold negative attitudes toward gambling but are unable to alter their behaviour.

Physiological Theories

Physiological studies of gambling have traditionally focused on three specific areas; *arousal, neurochemical factors* and *genetic predispositions*. The studies that have examined problem or pathological gamblers, from this perspective, have made direct comparisons with chemical addictions. Blaszczynski, Wilson and McConaghy (1986) suggested that pathological gambling is a reaction to depression or imbalanced physiological arousal levels. In a series of experiments they found baseline arousal differences between horse race gamblers and slot machine players. They suggest that horse race gamblers may be attempting to reduce stress, whereas poker players may be trying to alleviate depression due to low β -endorphin levels.

Carlton and Manowitz (1987) in a series of studies measuring EEG patterns investigated differences in hemispheric activation produced by performing different tasks. They found that EEG responses related to simple verbal and non-verbal tasks were lower in pathological gamblers than in controls. This finding has also been associated with the symptoms exhibited by children with attention deficit disorders (ADD). The symptoms

of ADD are characterised by impulsiveness and inattention- similar to the symptoms of pathological gambling behaviour.

Norepinephrine is a monoamine that is responsible for producing arousal and excitability, and according to Blum (1991) dopamine (another monoamine) may also play a major role in the reward system. Blum suggests that dysfunction of dopamine neurotransmission in the nucleus accumbens (a part of the limbic system) may be responsible for excessive craving.

Serotonin (also a monoamine) is responsible for controlling relaxation, sleep, and feelings of well being, low levels might also be linked to specific craving behaviour.

The other neurotransmitter's neuropeptides (opioids) act as internal opiates by reducing craving behaviour, stimulating feelings of well being, raising pain thresholds, and producing characteristics similar to the effects of external opiates such as morphine and heroin, which may also act on these opiate receptors. However, findings in this area are only tentative and based primarily on theory alone. Blum, Trachtenburg, and Kozlowski (1989) suggest that there may exist in some people a genetic or environmentally induced deficiency of dopamine in the nucleus accumbens. Blum et al (1989) argues that using drugs such as opiates or stimulants stimulate dopamine transmission and increase feelings of pleasure and reward, reducing craving. This explanation could also be applied to the excessive behavioural cravings associated with problem gambling.

Gambling behaviour may increase arousal levels in some people facilitating the release of dopamine.

Cascade Theory (Blum, Trachtenberg & Kozlowski, 1989) relates dopamine release to a variety of addictions. Blum et al suggested that the initial effects of taking cocaine or amphetamine may be the same as taking part in some types of arousing activities (e.g.,

gambling or sex). The initial effect of the drug or activity is an increase in dopamine and norepinephrine levels, which in turn decreases craving. However, prolonged use of a drug or arousing activity followed by abstinence creates exaggerated discomfort and craving. According to Solomon (1980) our body tries to keep synaptic homeostasis, i.e., maintain a uniform state of synaptic activity. Using a drug or performing an arousing activity triggers an "opponent process" whereby the body counteracts the effects of the substance or activity. For example, when we drink alcohol the body counteracts the effects of the alcohol. When alcohol consumption ceases this opponent process system keeps going to a point where it over compensates and we feel ill (e.g., a hangover). Using drugs heavily or performing regular arousing activities may also increase this opponent process. When the person attempts to stop or cut down on the drug or activity they start to feel worse until their body can readapt to a normal balance. In this way the body builds tolerance to substances; as the body tries to counteract the effects of the drug so more and more of the substance must be taken to achieve the same effects. It has been shown that some people will also build a tolerance to activities such as gambling, so they must gamble more often to achieve the same effects (Griffiths, 1994).

Carlton and Manowitz (1987) suggest that pathological gamblers may be lacking in Serotonin (5 hydroxytryptamine, 5-HT) a naturally occurring inhibitor. However, they acknowledge that far more research in this area is required before 5-HT could be given to people in a compensatory capacity. Whether 5-HT is reduced before pathological gambling occurs or whether it is an effect of the behaviour is also less clear.

Comings, Rosenthal, Lesieur, Rugle, Muhleman, Chiu, Dietz & Gade, (1996) imply a genetic basis for pathological gambling by implicating the DRD2 gene, a variant of the dopamine D2 receptor gene. This gene has been found to correlate with alcoholism and

other addictions. Comings et al (1996) found that 51% of pathological gamblers had this gene compared to 26% of controls. This may contribute to the onset of pathological gambling. However, it does not explain why the 26% of the controls possessing the gene had not become pathological gamblers themselves. Furthermore, it is possible to become a pathological gambler without actually possessing the gene. Clearly there must be other factors that precipitate this behaviour.

Milkman and Frosch (1977) in a review of various addictions, suggest that there may in fact be two types of addict, those who seek arousal and choose stimulants or stimulating activities, and those who seek relaxation and choose opiates or relaxing activities. In this way gambling may perform different roles for different people. Some people may gamble to relax and escape from their 'normal' life, others may gamble because they find it exciting and it provides stimulation.

Personality Theories

There have been a number of studies that have examined possible links between gambling and personality factors. These studies have typically used a range of psychometric tests to try and establish such links. Moravec and Munley (1983) using the *Edwards Personal Reference Schedule* found pathological gamblers to score high on achievement, exhibition, dominance, deference, heterosexuality and endurance.

However, Taber, Russo, Adkins and McCormick, (1986) failed to find any links with pathological gamblers and any factors using the *California Personality Inventory*. A variety of studies using the *Minnesota Multiphasic Personality Inventory* (MMPI) have found pathological gamblers to have high scores on the psychopathic deviation scale, and clear links with depression (Graham & Lowenfeld, 1986; Adkins, Krudelbach,

Toohig & Rugle, 1987). However, it is difficult to determine whether these factors caused the gambling behaviour or were a consequence of it.

Walker (1992) reviewed the literature on personality and gambling, and identified three main areas of focus; sensation seeking, extroversion and locus of control. Sensation seeking dimensions have shown conflicting results. Some of the studies showed high levels of sensation seeking (Kuley & Jacobs, 1988) for gamblers compared to controls. Some studies have suggested low levels of sensation seeking (Blaszczynski, Wilson, & McConaghy, 1986), and yet other studies have indicated no difference (Ladouceur & Mayrand, 1986). Studies attempting to measure extroversion using the Eysenck Personality Questionnaire (EPQ) have also had conflicting results. Some studies showed higher levels of extroversion for gamblers (Wong, 1980), some studies demonstrated lower extroversion levels (Ladouceur & Mayrand, 1986), while other studies found no difference between controls (Blaszczynski, Wilson, & McConaghy, 1986). Studies examining locus of control and gambling have been more specific in their findings. For example, Moran (1970) and Wong (1980) each conducted a number of studies that found gamblers to have a high external locus of control. Huxley (1993) also found gambling participants to have a high internal locus of control.

However, several studies have found no loci differences when gamblers were compared with controls (Ladouceur & Mayrand, 1986). Finally, McCormick and Taber (1987) propose that there are five major personality traits that may show potential for future gambling research and treatments. These are; obsessive-compulsive factors, mood factors, a major traumatic life event, a socialisation factor and a substance abuse or multiple addiction factor. The persistent problem with personality research (apart from

the lack of conclusive findings) is the question of cause and effect. In other words did the personality trait cause the gambling, or did the gambling behaviour contribute to the development of the personality trait? Furthermore, it might be argued that psychometric scales do not actually measure personality traits themselves, but rather, they measure an operationalised concept and as such lack external validity (Kline, 1983).

ADOLESCENT GAMBLING

Adolescent gambling is a major problem in society today. Not only is it usually illegal, but it appears to be related to high levels of problem gambling and other delinquent activities such as drug taking. A number of studies in Europe, the USA and Canada have noted high levels of gambling among adolescents. Some of this gambling was legal such as fruit-machine playing in the UK (Fisher, 1993; Griffiths, 1995a). Whereas other forms of gambling were illegal for adolescents to play, such as casino gambling (in the USA, Canada and the UK) (Arcuri, 1985; Lesieur & Klein, 1987; Jacob, 1989; Winters, Stinchfield, & Fulkerson, 1993a; Gupta & Derevensky, 1998).

Compared to the USA and Canada there has not been a great deal of research done in the UK that has examined adolescent gambling. This is partly because most forms of gambling are illegal to persons under sixteen years of age. However, there is one form of gambling in the UK that has no statutory age limit and that is 'amusements with prizes' fruit-machine gambling. There have been a number of studies done in this area which highlight the problems adolescents may encounter whilst gambling (Griffiths, 1995a) and these studies may provide a valuable insight from which to examine other types of adolescent gambling, such as lottery and scratchcard gambling. At a worldwide level there have been numerous studies that have identified high levels of gambling among adolescents, some legal gambling such as fruit machine playing (Fisher, 1993, Griffiths, 1995c) and other forms illegal such as casino gambling (Arcuri, 1985; Lesieur & Klein, 1987; Jacobs, 1989; Winters, Stinchfield & Fulkerson, 1993b; Gupta & Derevensky, 1998).

It has been suggested that adolescents may be more susceptible to pathological gambling (Fisher, 1993; Lesieur & Klein, 1987). Winters et al (1993) note that despite the illegality of adolescent gambling it remains a popular activity. Steinberg (1988) found that 7% of high school pupils in a survey could be classified as pathological gamblers, and Fisher (1992) in a UK study, identified a 6% level of pathological gamblers on fruit machines. Griffiths (1995) in a review of the literature notes that a number of studies have indicated adolescent pathological gambling levels of at least 5%.

A typical finding of many of the adolescent gambling studies has been that problem or pathological gambling appears to be a primarily male phenomenon (Lesieur & Klein, 1987; Ide-Smith & Lea, 1988; Griffiths, 1995a). Ide-Smith and Lea (1988) suggest that males may over report and females under report how frequently they gamble. This may also be true for the amounts of money they report gambling. However, if that is so then this further reinforces the idea that gambling is part of a male culture. Whether or not this finding will be replicated for the UK National Lottery and National Lottery scratchcards remains to be seen as they may appeal equally to both sexes due to their availability, and the proliferation of advertising reinforcing these products.

It has also been argued that adult society may, to some extent, be promoting adolescent gambling. For example, a strong correlation has been found between adolescent gambling and parental gambling (Ide-Smith & Lea, 1988; Fisher, 1993; Winters, Stinchfield & Fulkerson, 1993b; Griffiths 1995; Gupta & Derevensky, 1998).

Other factors that have been linked with adolescent problem gambling include; delinquency, drug use, an early starting age and poor school performance (Arcuri, 1985;

Lesieur & Klein 1987; Fisher, 1993; Winters, Stinchfield & Fulkerson, 1993b; Griffiths 1995; Gupta & Derevensky, 1998).

Types of Adolescent Gambling

Jacobs (1989) in a review of studies examining American high school youth gambling found that lotteries were consistently one of the most popular forms of commercial teenage gambling, as reported by 41% of participants from five surveys. Lotteries were second overall as the most favoured form of gambling, the first being non-commercial card playing with family and friends. Ladouceur and Mireault (1988) in a study of nine high schools in Quebec (n=1612 ninth to twelfth grade students) discovered that lotteries were the most favoured form of gambling undertaken by 60% of the students. Furthermore, it was established that 90 % of the parents knew their children gambled, and that 84% did not object. Casino gambling has also been found to have a particularly high prevalence rate of approximately 15% (Frank, 1988). Fisher (1998) found that slot machines were the most popular form of UK adolescent gambling played by 75% of her sample (n=9774), followed by National Lottery Scratchcards (47%) and then the National Lottery (40%). Griffiths, Scarfe and Bellringer (1999) found that of the 1266 callers who phoned the GamCare National Helpline (and who revealed their age), a total of 156 calls (12%) were made by people under 18-years of-age. The vast majority (128 calls; 82%) concerned problems with slot machines. Other problem areas identified in relation to adolescent gambling included off-course betting (17 calls; 11%), casino gambling (6 calls) and scratchcard gambling (5 calls; 3%). It is worth noting that most of this gambling was legal as there are no currently few legal age restrictions on AWP (amusement with prizes) slot machines. Gupta and Derevensky (1998) conducted a

prevalence study of adolescent gambling in Montreal (Canada) and found that 80% of the participants reported having gambled during the previous year. They found that playing cards was the most popular gambling activity (56%) closely followed by lottery gambling (52%).

Adolescent gambling- The future?

As Griffiths (1999b) asserts, the field of gambling is not immune to the technological revolution taking place in other fields. Technology will continue to provide new market opportunities not only in the shape of internet gambling but also in the shape of more technologically advanced slot machines, video lottery terminals, interactive television gambling and telephone wagering. In addition, other established gambling forms will become more technologically driven (e.g., bingo, keno). These are all forms of gambling that may prove to be highly appealing to adolescents.

Gambling is undergoing mass expansion all over the world. The global growth of gambling coupled with the increased popularity of the internet and various digital technologies, has led the gambling industry to invest heavily in internet gambling. The scope for new and extended business in this area is potentially very large as more people gain access to this technology. As personal computers and television technology become more integrated (e.g., internet access being offered as part of cable television packages), "Web TV" will be cheaper and easier to use - particularly for people who are not familiar with computers.

Further to this, it has been alleged that social pathologies are beginning to surface in cyberspace in the form of "technological addictions" (e.g., Griffiths, 1995d; 1995e; 1996b; 1996c; 1998). The growth of the internet raises interesting questions particularly when it comes to adolescent gambling. Perhaps one way to think of this is to see the internet as providing a medium for other addictions to intensify through easy accessibility. For instance, it has been argued (Griffiths, 1996c) that the internet could easily be the focus of obsessive and/or compulsive behaviours. One thing that may intensify this focus are the vast resources on the internet available to feed or fuel other addictions or compulsions such as problem gambling. For example, for a problem gambler, the internet could potentially be a very dangerous medium. In fact, some observers (e.g., O'Neill, 1998) have argued that internet gambling provides "a natural fit" for compulsive gamblers. Although there are still some technical and regulatory problems, over time, the internet will become technologically more sophisticated allowing faster speeds and better graphics etc. and issues surrounding security and marketing will be tightened up. It would appear that internet gambling will take off for several reasons. Firstly, it is easy to access and participate in an activity that comes into the home via television. Secondly, internet gambling has the potential to offer visually exciting effects similar to slot machines and video lottery terminals (currently two of the most problematic forms of gambling). Furthermore, the event frequency can be very rapid, particularly if the gambler is subscribed to several lottery sites. There are a variety of issues that need to be addressed. The major ones appear to be:

Underage gambling - how can one be sure that adolescents do not have access to internet gambling by using a parent's credit card?

Gambling while intoxicated - how can one be sure that a person (adult or adolescent) does not have access to internet gambling while they are under the influence of alcohol?

Opening hours - the internet never closes so it is possible to gamble all day, every day. This also means there is the potential for very high event frequencies .

Electronic cash - It is very likely that the psychological value of electronic cash will be less than "real" cash (and similar to the use of chips or tokens in other gambling situations). This may lead to some kind of "suspension of judgement".

Learning to gamble – Many websites currently offer 'free' gambling activities to encourage 'traffic' to their site, and paid for by advertising. The danger here is that children and adolescents are being taught the principles of gambling without considering the consequences. It is conceivable that such free forms of gambling could lead into gambling with money at a later date.

Another factor that relates to internet gambling and the impact on adolescents is the changing nature of family entertainment. The increase in and development of home entertainment systems is changing the pattern of many families' leisure activities. The need to seek entertainment and leisure outside the home has been greatly reduced, as digital television and home cinema systems offer a multitude of interactive entertainment services, and information. The result of this is that many families adopt a leisure pattern known as "cocooning" (Popcorn, 2000) where the family and/ or individual concentrates their leisure time around in-house entertainment systems. Rather than going out, the entertainment comes to them direct via digital television and internet services. In the not-to-distant future part of this entertainment, for many families, is likely to be internet gambling.

So should we be concerned about adolescents gambling on the internet? Recent surveys have revealed that the majority of internet users are male although the number of female internet users is rising (Morahan-Martin, 1998). Recent studies have begun to examine excessive

internet use among student populations (Morahan-Martin & Schumacher, 1997; Scherer & Bost, 1997). Although unrepresentative of the general public, college students are considered high-risk for internet problems because of ready access, technological sophistication, ample financial resources and flexible time schedules (Moore, 1995). A survey by Pitkow and Kehoe (1995) indicated that 32% of internet users access the internet through education providers and that 28% of internet users are college students.

Two recent studies have suggested that young regular internet users are more likely to gamble on the internet. Morahan-Martin and Schumacher (1997) found that pathological internet users were more likely to be male and were more likely to use the internet to meet new people, for emotional support, to talk to others with the same interest, to play interactive games (e.g. videogames, fantasy role playing games), to gamble and to engage in net-sex. They were also lonelier as measured on the UCLA Loneliness Scale (Russell, 1996). Scherer and Bost (1997) surveyed students about their internet use and developed a checklist of ten clinical symptoms to parallel the symptoms of substance abuse and dependency. Results showed that those defined as internet dependent used less popular services on the internet (games, bulletin boards, chatrooms, gambling), and that they were more likely to have on-line relationships. Both Griffiths (1995e; 1998) and Bromberg (1996) have argued that the internet provides an alternative reality to the user and allows them feelings of immersion and anonymity which may be psychologically rewarding. Such immersion may actually lead to an altered state of consciousness that in itself may be highly psychologically and/or physiologically rewarding.

All of the surveys to date indicate that excessive internet users (whether they have problems or not) are more likely to engage in internet gambling. Some may argue that gambling is a

social activity and that therefore internet gambling will not increase. However, problematic gambling often involves asocial forms (e.g. slot machines) and that technology essentially turns gambling from a social pastime to an asocial one. This in itself may make gambling more problematic (Griffiths, 1999).

It is clear that excessive involvement with gambling, videogames and the internet may bring problems to the individuals concerned and that these problems appear to be intensified when the individual is an adolescent. The technologies involved in gambling, videogame playing and internet use are slowly merging and adolescents already living and interacting in a multi-media world are discovering that leisure opportunities are becoming more easily accessible and widespread. The risk factors involved in problem adolescent gambling are beginning to become established although more research is needed to identify risk factors for both excessive videogame playing and excessive internet use. Jacobs (1997) has made the point that without early and appropriate prevention, intervention and treatment, adolescents will become high-risk candidates for developing a variety of dysfunctional behaviours including a range of addictive behaviour patterns.

Through analysis of both the situational and structural characteristics in gambling, videogame and internet activities, it would appear that situational characteristics impact most on the acquisition of gambling behaviour. Structural characteristics seem to impact most on the development and maintenance of gambling behaviour. Furthermore, the most important of these factors appears to be the accessibility and the event frequency of the activity (both of which are critical to the success of gambling, videogames and the internet). It is when these two characteristics combine that the greatest problems could occur. This is well demonstrated by the worldwide proliferation in slot machines (and the associated problems that go with

them). As Griffiths (1999b) points out, it could be that slot machine gambling has more "gambling inducing" structural characteristics (as a result of the inherent technology) than other forms of gambling, and could be why a relatively large minority of gamblers in the UK are "addicted" to slot machines (many of whom are adolescents). With their integrated mix of conditioning effects, rapid event frequency, short pay out intervals and psychological rewards, it is not hard to see how slot machine gambling (and psychologically similar activities like scratchcard gambling) can become a repetitive habit.

There are a number of psychological theories as to why people gamble, and what may cause them to become problem or pathological gamblers. A number of individual and environmental factors have been identified, and it is likely that a combination of factors may be involved in such behaviour patterns. The merits of various theories must be examined and it is perhaps a combination of these theories, or aspects from several which may best explain the behaviour of an individual (Lesieur, Rosenthal 1991). The current literature on gambling does not generally differentiate separate theories for adolescent and adult gambling. However, it is likely that major aspects of the theories pertaining to adult gambling are at least partly valid in relation to adolescents. However, adolescence is also a time of great emotional and physical change. It is, perhaps, not surprising that during this critical period in a person's life that they are more susceptible to develop certain patterns of problematic behaviour (e.g. drug taking or gambling). Adolescent gambling may contain unique features from patterns of adult gambling, and it is the aim of this thesis to help identify such factors.

CHAPTER: 5

LOTTERY AND SCRATCHCARD GAMBLING

Lotteries are not a new phenomenon to the UK and can be traced back to as early as 1569 when they were used to generate money for a variety of public purposes, such as bringing fresh water to London. All the lotteries were controlled by the state and in 1698 parliament decreed that all lotteries had to be state approved (Tondeur, 1996). Lotteries continued until 1826 when growing opposition to the nature of the activity put a stop to lotteries altogether. It was not until after the Royal Commission on Lotteries and Betting in 1923 that the law was relaxed to allow small lotteries for charitable purposes. In 1992, shortly before a general election, the Conservative government published a white paper recommending a National Lottery for 'good causes'. The National Lottery became reality on November 14th, 1994, and was based on a forty nine-ball system with a single weekly Saturday draw. Approximately five months later, National Lottery 'Instants' (a type of scratchcard) were introduced on March 21st 1995. On the February 5th, 1997, a second weekly lottery draw (on a Wednesday) was also introduced. Since this time both the National Lottery and National Lottery Instants have been phenomenally popular. In the first year alone, £3.3 billion pounds worth of lottery tickets were sold along with £1.1 billion of scratchcards (Camelot 1995, Kellner 1995). With around 65% of the UK adult population regular players and estimates that 90% of adults have played at least once (Camelot 1995, 1996), the National Lottery is the UK's most popular form of gambling.

There has been little published research based on the UK National Lottery. In general most of the literature on lotteries has been based upon state lotteries in America and

Canada, as they have been in operation for many more years. An examination of the U.S. and Canadian literature highlights many of the factors that are linked to lottery play, and also outlines possible risk factors. Unfortunately, there has been even less research that has looked at the effect of lotteries and scratchcards on adolescents as a distinct group. However, more recently there has been a growing interest in this area of investigation, and consequently some studies have now been undertaken. Drawing on studies of lotteries from around the world, the following section examines some of the psychological and social factors that have been associated with lottery playing.

Lottery gambling: demographics and related factors

Burns (1990) examined lottery players in Florida, as part of a consumer research study on compulsive consumption and lottery playing behaviour. The study identified a correlation between heavy play and parental gambling, the dream of winning and cross addictions. It was found that players tended to have lower incomes, be less educated and younger than non-players. Burns suggests that lotteries are a form of 'socially acceptable risk taking' played primarily for reasons of fantasy and escapism, (i.e., people are buying a low cost fantasy). However, Burns' correlations were not statistically significant, and compulsive consumption was not significantly related to heavy lottery play. Browne and Brown (1994) found that students whose parents gambled on lotteries were significantly more likely to buy lottery tickets themselves, and that men were more likely to play lotteries than women. A significant relationship was also found between frequency of lottery gambling and peer lottery gambling. Men who had lottery playing peers spent more than women with lottery playing peers. Students who were frequent lottery gamblers were also more likely to gamble on other activities. Browne and Brown found a negative relationship between the age of first

placing a bet and/or lottery playing, and subsequent lottery gambling. That is, those who reported gambling at an early age were more likely to gamble on lotteries in later life. The relationship between frequent lottery playing and locus of control was also examined, but the two factors were only marginally linked. However, Browne and Brown noted that this may be because their sample was taken from a student population, which is consistent with a link between education and personal efficacy. Educated people tend to have a high degree of personal efficacy and as such usually have a high internal locus of control (Leftcourt, 1976). This is in fact a major criticism of the Browne and Brown study as research has tended to suggest that educated people, and the financially secure, are less likely to play lotteries altogether (Burns, 1990; Kaplan, 1989). The Browne and Brown study also supports a social learning theory of gambling, indicated by the high degree of correlation between student and parent lottery gambling. However, it does not really examine many psychological factors. The relatively small size of the sample in the Browne and Brown study (1994), with only 288 participants, also questions the validity of their results in relation to the wider population.

Social impact

Kaplan (1989) has questioned whether or not governments should be involved in state lotteries at all. He notes that historically lotteries have been used to generate taxes in the USA and Europe, and that it may be thought of as a 'painless tax'. Kaplan argued that the running of a UK National Lottery by a private company would relieve the government of some of the moral ambiguity in promoting gambling. This would increase cost effectiveness, leaving the government to maintain a regulatory role. Weinstein and Deitch (1974) point out that the same revenue can be generated by

increasing sales tax by half a percent. Kaplan (1989) suggests that lotteries are historically ineffective at producing tax revenue due to running costs and fluctuations in sales. Braidfoot (1988) argues that every state lottery that exists in the US was implemented because the state needed the money. Examining further the social impact of lotteries, Kaplan (1989) notes that lotteries are a regressive form of taxation based on loss of personal wealth, and that poorer people purchase more tickets in proportion to their income (Gambling in America, 1976; Suits, 1982). Luke (1988) demonstrated that in the US black people bought more lottery tickets than any other ethnic group. Similarly, Clotfelter and Cook (1987) found that in Maryland and Massachusetts instant tickets sold mostly to poor and black people, and that ten percent of US lottery players accounted for fifty percent of the money generated by lotteries. Kaplan (1989) argues that there may exist a dual consumer market where poor, black and Hispanic people play instant games, and white middle and upper class people prefer the lottery. However, the actual figures of lottery sales may be distorted in some studies. Montmarquette and Brenner (1987) found that when interview statistics were compared with sales figures there appeared to be an under reporting of around fifty percent. Therefore, it may well be that more people participate in lotteries world wide than the current figures suggest.

The largest amount of money spent by the British public on a single National Lottery draw was £128 million in January 1996, when there was a rollover jackpot of £42 million. However, sales steadily declined until the Wednesday draw was introduced (February 1997), which boosted sales by 20-30%. This increased overall lottery sales to their peak level, of approximately £5.5 billion per year (ONS, 1998).

The Family Expenditure Survey (ONS, 1997) indicated that sales of lottery products are equivalent to £4.25 for every household in the UK, and £6.45 for each participating household. A study by Reid et al (1999) found that manual workers spent more than twice as much on the lottery than non-manual workers. The study also demonstrated a link between higher spending on the lottery and poor social functioning, lower frequency of social support, and higher alcohol and cigarette consumption. Higher spending was associated with older age and manual social class, as noted in previous studies (Camelot, 1997). There was no association found between higher spending and annual earnings, use of drugs, general mental health, ethnicity or sex.

Grun and McKeigue (1999) examined the single distribution theory of gambling behaviour and found, by examining the 1995-1996 Family Expenditure Survey, that there was a close relationship between regional household expenditure on the lottery and the prevalence of excessive household expenditure on the lottery. The study notes that the introduction of the National Lottery in the UK doubled the average households' weekly expenditure on gambling, and was associated with a three to fourfold increase in the proportion of households spending excessively on gambling. Furthermore, these figures may well be underestimating the extent of excessive gambling expenditure, as the survey was found to underestimate lottery sales by 30%. Other forms of gambling including National Lottery scratchcards also appear to be underestimated (King, 1997). It may be that the underestimation of gambling sales, compared to national sales data, may be related to illegal juvenile purchases. General underreporting, and excessive purchases by a significant minority would affect sales figures, but these people would not necessarily be accurately represented in consumer survey data. Definitions of excessive gambling in the 1995-1996 Family Expenditure

Survey study were based on household expenditure as it was argued that hardship is more likely to derive from excessive household income loss than it is from individual losses. This is an important factor to consider, as excessive household gambling can not easily be measured by current diagnostic tools, which are designed to identify problem and/or pathological levels in individuals only.

The structure of the UK National Lottery means that it is unlikely to be very addictive, due to the relatively long period of time between buying tickets and getting the results of the draw. However, there appears to be a significant number of households who are spending excessively on lottery products. The hardship these households subsequently incur are yet to be fully comprehended.

**PSYCHOLOGICAL FACTORS THAT MAY INFLUENCE THE
ACQUISITION, DEVELOPMENT, AND MAINTENANCE OF LOTTERY AND
SCRATCH-CARD GAMBLING.**

It appears that peoples' perceptions of winning in a lottery may in part be influenced by the use of a number of heuristic strategies. Haigh (1995) notes that many lottery players do not choose random numbers but instead use numbers based on personally salient events (such as birthdays), or choose evenly spread combinations of numbers with a reluctance to choose more than one high number. This may reflect a belief in personal 'lucky numbers'. Holtgreaves and Skeel (1992) found that lottery players may also harbour an illusion of control (Langer, 1975) precisely because they have the opportunity to choose their own numbers. That is, they feel they have some control over the event by having a choice of what numbers to actually pick. Holtgreaves and Skeel (1992) further note that in accordance with the representativeness heuristic (Kahneman & Tversky, 1972) people only tend to perceive an event as random if the outcome appears irregular. Therefore players tend to avoid choosing combinations of numbers that are numerically next to each other (e.g. 1,2,3). This is symptomatic of what is known as the gambler's fallacy (Wagenaar, 1988), the belief that even in the short term, subsequent events will cancel out previous patterns to produce an overall irregular random sequence. Of course all numbers will eventually be equally represented, but an infinite number of draws may need to occur first. However, some lottery players may avoid some numbers because of the frequency with which they have already been

drawn, in the belief that less frequently drawn numbers must soon have their turn. This belief may be reinforced by the practise of reading out the number of times each number drawn in the lottery has previously occurred in a draw, as is practise on The National Lottery television programmes in the UK. Furthermore, as each week two sets of numbers are drawn in the UK lottery, so players may perceive the likelihood of their own numbers being drawn as getting closer. That is, they may believe that previously drawn numbers are less likely to occur again in the immediate future.

Another cognitive bias that may influence lottery play concerns anchoring and adjustment. Wagenaar (1988) noted that lottery players often based their judgements on an anchoring point that does not represent the actual properties of the lottery (e.g. underestimation of the probability of winning). Subsequent adjustments in perception of the properties of lotteries (from increased information about the lottery, experience etc.) are usually insufficient to correct this error, and are compounded by the initial anchor bias. Holtgreaves and Skeel (1992) suggest that the anchoring and adjustment heuristic may also influence player's decisions concerning which lotteries to participate in. They note that when a lottery involves multiple conjunctive events (e.g. picking several numbers in one draw as with the UK National Lottery) that the players' estimates of winning may be biased because of the judgement made after picking the initial number. That is, the players' initial perception of the probability of one number coming up is inaccurate, which in turn biases the judgements of probability on successive numbers. In contrast, lotteries based on disjunctive events (e.g., correctly selecting at least one number in a series of draws) usually involve greater odds because the probability of a disjunctive event is greater than the probability of each individual stage (as with a

conjunctive event). Therefore, people are more likely to pick a lottery based on a conjunctive event rather than a disjunctive event, even when the probabilities are identical.

Situational and structural characteristics

Situational characteristics are the factors that persuade people to gamble in the first place. These include the location of gambling outlets, the number of gambling outlets in a specified area and the use of advertising to stimulate gambling participation (Cornish, 1978). Lorenz (1990) suggests that lottery advertising (world-wide) should bear more responsibility and stick to the truth. For example, a common lottery slogan is 'Everyone's a winner' a statement which is clearly not true. Furthermore, many advertisements encourage other forms of gambling by depicting horse racing scenes or other such gambling scenarios. Some lottery advertising even uses emotionally significant themes. For example, some of the New Jersey lottery advertisements appeal to peoples' emotions, by depicting a man in a wheelchair and stating that the lottery pays millions to education and state institutions (Lorenz, 1990). Kaplan notes that lottery promotion campaigns accentuate gambling despite the emphasis by lottery officials that lotteries are a form of entertainment. In an analysis of lottery advertising, Clotfelter and Cook (1987) argue that lottery advertising promotes materialistic values and are misleading about the odds of winning. Furthermore, Luke (1988) found that a Detroit radio station even went as far as broadcasting lottery advertisements specifically aimed at inner city black people, who appear be one of the biggest buyers of lottery tickets according to research evidence (Luke, 1988; Cook, 1987).

Griffiths (1996b) points out that the U.K Gaming Act 1968 stipulates that '*gambling should not be stimulated*' and that this has been broken by the introduction of the UK National Lottery. He goes on to argue that Camelot² are actively and blatantly stimulating gambling through mass television advertising and advertisements in the national press and on large town billboards. Griffiths suggests that the advertising has been designed to make people think that they might actually win the lottery (e.g., '*Maybe just maybe*' and '*Everyone's a winner*'). The latter phrase appears to tap into people's feelings of altruism. With National Lottery Instants, the slogan '*Forget it all for an Instants*' may encourage the pursuit of escapism in players, a factor that is frequently associated with pathological gambling (Griffiths, 1995a). Another situational characteristic of the National Lottery and scratchcards concerns the manufacture of credibility. Griffiths (1996b) notes that the UK National Lottery and scratchcards are effectively government approved. Furthermore, the draw is shown on prime-time television by the British Broadcasting Corporation (BBC) providing additional credibility. Kaplan (1989) suggests that the state approval of lotteries and their links with charitable causes legitimises previously illegitimate activities. Pratakanis (1995) argues that such forms of source credibility can lead to the processing of messages in a half mindless state, and can consequently inhibit questioning of the behaviour.

Structural characteristics refer to those factors that maintain or reinforce gambling behaviour. Griffiths (1996b) suggests that by identifying particular structural characteristics it may be possible to identify how gamblers' needs are identified, how information about the gambling activity is represented (or misrepresented), and in turn how this may influence and perhaps distort gamblers' thoughts. Griffiths argues that

² Camelot are the government appointed administrators of the UK National Lottery and *Instants* scratchcards.

such distinctions could be used to identify between 'hard' and 'soft' gambling, and perhaps even warn of potentially 'high risk' forms of gambling. There are a variety of structural characteristics that can be identified within the National Lottery and Scratchcards. Griffiths (1996b) outlines several of these characteristics; *Payout ratio* refers to the amount of money which can be won in relation to the stake money. On the National Lottery the amount of money won can be millions of pounds whereas scratchcards are presently limited to £100,000. *Event Frequency* refers to the time elapsed between the initial gamble and any subsequent gambles. With the National Lottery a player has to wait several days before another draw takes place and consequently the event frequency is relatively low. However, Wagenaar (1988) suggests that the relatively low event frequency inherent in many lotteries separates in time the action of buying a ticket and the actual outcome. In other words, by the time the lottery draw takes place the expenditure on the ticket may already have been absorbed into the gamblers' general expenses. Therefore, whilst the low event frequency may not provide such a vicarious feedback (as say with scratchcards) it may mean that the process of losing relatively large amounts of stake money is not as readily comprehended over time. Furthermore, a number of structural characteristics of the National Lottery and scratchcards may lead to a suspension of judgement in the player. For example, they may concentrate on the low cost of a scratchcard or lottery ticket (£1) rather than the accumulated total of buying a number of tickets (Griffiths 1996a). The National Lottery is relatively slow in paying back winnings, as these can only be collected after the bi-weekly draws. Scratchcards on the other hand have a very high event frequency as they can be played as quickly as they can be bought and the panels scratched off. Furthermore, scratchcard payments up to a value of £75 (£200 at the discretion of the retailer) will be paid back instantly by the sales vendor. Griffiths (1996a) notes that

these factors may exploit the principles of operant conditioning. It has been shown that intermittent rewards such as those gained through gambling have the strongest conditioning effects (Skinner, 1953; Moran, 1987). In this respect scratchcards may have more of an addictive potential than the National Lottery.

Another structural characteristic present in both the National lottery and scratchcards is *the near miss*. It has been noted that a near miss (i.e. a failure that appears to be close to winning) in a gambling situation may produce a feeling in the player that is similar to winning, but at no cost to the vendor (Moran, 1979; Reid, 1986; Griffiths, 1991).

Scratchcards may exploit this principle more than the National Lottery as they involve matching only three numbers. Many scratchcards have been found to display two matching numbers, but far fewer contain three matching numbers, in this way a player may feel that they are constantly nearly winning rather than losing (Griffiths, 1995a).

Win probability may be one of the main characteristics that determine whether or not a person decides to gamble on an activity in the first place. With the National Lottery and scratchcards, the probability of winning the jackpot prizes are very small, although the chances of winning something are somewhat greater. The chances of winning the smallest prize on the National Lottery (£10) are approximately one in fifty, and with scratchcards the smallest prize (£1) carries odds of around one in three. In the latter case it could be argued that only winning back the price of the stake money is not actually a win at all, as the player is only breaking even. The effect of occasionally winning small amounts may provide intermittent reinforcement for the activity and lead to a process of conditioning. However, many lottery and scratchcard players may actually be focusing on the size of the jackpot rather than the chances of winning. For example, the sales of

lottery tickets on rollover weeks (where the previous draws' jackpot is unclaimed and is added to the next draw) increase dramatically (Camelot, 1995).

Entrapment may be another reason why people continue to play the National Lottery. This entails the gambler making a commitment to an activity. This commitment may then lead the gambler to analyse the situation less. With the National Lottery, many people pick the same numbers every week often with numbers made up from family birthdays or other such personally significant numbers. However, this means that the player is faced with the dilemma that if they stop playing or even miss one week, it may be the time that their numbers 'come up'. In this way the person is trapped into playing every draw and as times goes on the entrapment may become greater and greater (Walker, 1992). Crosbie (1996) in a survey for the *Daily Express* reported that 67% of National lottery players reported using the same numbers every week (although the sample was unspecified and it was not a scientifically rigorous study). Finally, Griffiths (1996b) suggests that some of the National Lottery's success may contribute to a sense of shared social identity, which he notes may be added to by the all too familiar discussion of what people would do with the money if they won the lottery.

Problem Lottery Gambling

Kaplan (1988) examined the connection between lotteries and compulsive gambling and notes that there is clinical agreement that lotteries contribute to increased levels of gambling abuse. He suggests that as sales reach a plateau so lottery advertising gets more aggressive and often instant win cards (e.g. scratchcards) are introduced to increase excitement. He argues that these are like miniature slot machines employing conditioning techniques, as outlined by Skinner (1971). Lorenz (1990a) suggests that

lotteries may well be contributing to an increase in pathological gambling. She notes that the profile of pathological gamblers has changed since the mid seventies from middle aged, middle classes white business men (Custer & Custer, 1978; Lesieur, 1984; Lorenz & Shuttleworth, 1983; Roston, 1961) to all ages, education levels, races, sexes, and socio-economic groups (Lorenz, 1990a; Lorenz, 1990b). Kaplan (1988a), from a study of winners, notes that the young, the elderly, and ethnic minorities may be most at risk of becoming pathological gamblers.

‘The dream of financial security offered by lotteries and illegal numbers finds a special place in the subculture of poverty and despair that pervades the inner cities of our society’.

(Kaplan 1988a: 196)

Lorenz (1990a) further argues that state lotteries are addictive despite arguments by lottery directors to the contrary. She points out that the only difference between lottery and other forms of gambling such as casino or race track gambling is the style and level of energy, rather than reason for gambling and the outcome. Both types of gamblers seek the thrill of placing bets, and both sink into depression when they lose, leading to more gambling to alleviate their mental state. Lorenz emphasises that it is the players’ belief that that they can beat the odds that critically contributes to problem gambling, for which lotteries are no exception. She cites several examples of compulsive lottery gamblers who follow elaborate systems that they are convinced will win them the jackpot. Kaplan (1988) similarly identifies the practise of ‘tracking’ whereby gamblers follow previous winning numbers to try and identify patterns, despite the fact that the

numbers are entirely random. Therefore, it may be that the frequency of play, and the event frequency may not be a major contributing factor to problem gambling with lotteries, as is common in some gambling activities (e.g., fruit machines). Instead, problem lottery gamblers may spend long periods of time developing complicated plans based on patterns of previous number outcomes, clearly misunderstanding the nature of randomisation in accordance with 'the gamblers fallacy.'

The National Center for Pathological Gambling runs a 24-hour national compulsive gambling telephone hotline in the U.S. During 1989, 7% of the compulsive gamblers who called stated lotteries were their main form of gambling and 11% said lotteries were their second favoured type of gambling (Lorenz, 1990). Further examination of the data outlined two types of gamblers. Those who prefer fast action betting with large sums of money, and those who preferred lotteries, poker machines, bingo and less action-orientated games. It was also demonstrated that the fast action gamblers tended to be better off financially, be better educated and in full time employment compared to the less action-orientated gamblers. However, despite wealth differences, it was the lottery players who spent most money proportionally compared to the fast action gamblers. Problem lottery players were also less likely to receive professional help, as they had less money to pay for such treatments (Lorenz, 1989). Furthermore, in a survey conducted by the Maryland Task Force on Gambling Addiction (Lorenz, 1990a) it was found that lotteries were found to be the first or second gambling preference by 18% of ninety Gamblers Anonymous members surveyed. The FY90 Compulsive Gambling Hotline (Lorenz, 1990b) found lottery addicts to be the highest group over all the other types of compulsive gambler (Lorenz, 1990d), and 36% of the Maryland residents

receiving treatment from the National Center reported lotteries as either their first or second preferred type of gambling (Lorenz, 1990b).

Hraba, Mok & Huff (1990) demonstrated with a telephone survey that problem gambling may be a progression involving three distinct phases; *gambling behaviour*, *loss of control*, and *gambling consequences*. Their study suggests that progression into each stage is reached by fewer and fewer people, that is, many people gamble but far less actually reach the gambling consequences stages, indicating that gambling behaviour precipitates the other behaviours. They asked the question whether or not lottery play in itself is sufficient to lead to deeper levels of problem gambling. They found that religion, education, alcohol consumption, exposure to gambling (including lottery play) and impulsiveness predicted loss of control. Religion, residential mobility, multiple marriages, being unmarried, being widowed, being a member of the armed forces service, and being a 'big spender' predicted gambling consequences. Apart from a socialisation theory these findings do not support any of the major theories of pathological gambling, and they suggest that longitudinal research is needed to elucidate further understanding of the relationship between these variables. The study also identified many factors linked to problem lottery gambling, but was unable to distinguish between cause and effect. Therefore, whether or not lottery gambling in itself is enough to develop problem gambling is not clear, as it cannot be isolated from the other variables.

Problem scratchcard gambling

Scratchcards constitute a structurally different form of gambling to lotteries. In the UK National Lottery Scratchcards (*Instants*) can be purchased in the same outlets as the

National Lottery and the money also goes to 'good causes', but here the similarity ends. The main difference between scratchcard and lottery gambling is that scratchcards have a very rapid event frequency. That is, the time between buying a scratchcard, obtaining the result, and buying more scratchcards can be very brief. With the National Lottery the person must wait several days before they can get their result and buy a ticket for another draw. In this respect it has been suggested that scratchcards may constitute a 'harder' form of gambling than the National Lottery (Griffiths 1995c, 1996a). The Royal Commission (1978) noted that casino type gambling incorporated the highest number of gambling inducing characteristics, such as high payout ratio and rapid event frequency. In addition, these types of gambling activities often result in heavy losses because of the opportunity for continuous gambling. It is suggested by Griffiths (1997) that these are characteristics also present in scratchcards. The comparison between fruit machines and scratchcards has also been identified (Kaplan, 1988; Griffiths, 1995c).

Whilst there is a lack of empirical evidence concerning problem scratchcard gambling (due to a lack of research in this area) it appears that the National Lottery and scratchcard gambling may both be potentially problematic activities for large numbers of people but in different ways. The National Lottery may appeal to a sense of fantasy preoccupying some people's thoughts, with planning schemes, or the fantasy of winning. Scratchcards may involve a more vicarious feedback or 'hit', involving operant conditioning and physiological arousal. Whether or not these characteristics will appeal to different types of people is not yet clear.

ADOLESCENT GAMBLING ON LOTTERIES AND SCRATCHCARDS

The legal age limit for playing the UK National Lottery and 'Instants' Scratchcards is sixteen, but there is a growing body of evidence that many younger children are also taking part (Garner, 1995; MacDonald, 1995; Moran, 1995; Fisher & Balding, 1996; Fisher, 1998). Moran (1995) reported that 61% of a sample of 187 school children had successfully purchased lottery tickets. A survey by the children's charity 'Children's Express' commissioned by *The Independent* newspaper found that children aged between 12-to 15-years were able to buy lottery tickets on two thirds of occasions (Garner, 1995). A similar study by *The Sunday Mirror* newspaper reported that three quarters of the children in their survey aged (11- to 15-years) had bought lottery tickets. Many more young people whilst not actually purchasing the tickets themselves are given lottery tickets or scratchcards by their parents (Fisher, 1998). Furthermore, the Independent Television Commission (1995) showed that *The National Lottery Live* television program was the second most popular program watched by children aged 10- to 15-years of age, with 38% watching. It appears that the National Lottery (and to a lesser extent scratchcards) have become a socially acceptable form of gambling for children as well as adults. This is an area of particular concern in light of several studies that have indicated a strong link between adult problem gamblers and later problem gambling amongst their children (Ide-Smith & Lea, 1988; Fisher, 1993; 1998; Winters, Stinchfield & Fulkerson, 1993; Griffiths, 1995a). Studies have also shown that people who gamble in childhood are more likely to become problem gamblers as adults (Ide-Smith & Lea, 1988; Fisher, 1993; Winters, Stinchfield & Fulkerson, 1993; Griffiths,

1995a). Studies in the UK Canada and USA have revealed a general pathological gambling rate of five to six percent amongst the under 18 years of age group. This figure is twice that identified in the adult population (Fisher, 1993; Schaffer et al 1994; Griffiths, 1995a). Therefore, it seems apparent that young people may be more vulnerable to the negative effects of gambling than adults. Furthermore, pathological gambling in adolescents has been linked with a variety of delinquent activities such as alcohol, substance abuse, theft and truancy (Ladoucer & Mireault, 1988; Fisher, 1993; Griffiths 1995).

In Minnesota (USA), Winters, Stinchfield and Fulkerson (1993) conducted a telephone survey of older adolescent gamblers (n=702, 15-to 18-years of age) and found that 15% had 'played' a lottery at some time in their life and 14% had done so in the last year. Adolescents who had bought scratchtabs (American equivalent of scratchcards) numbered some 37%, and 35% had done so in the last year, figures more than double the lottery participation rates. Out of the 61 problem gamblers identified 12% played lotteries on a weekly basis and 30% played scratchtabs on a weekly basis. The higher rates for scratchtabs may be indicative of the 'harder' format these activities take compared to lotteries. With scratchtabs there is a very high event frequency and the payout frequency is often quick (the time between realising a win and getting the money). With lotteries, the gambler must wait until the draw is performed and hence these factors are not as prominent. However, the authors note that levels of adolescent lottery participation may be set to increase as at the time of the study Minnesota did not yet have it's own state lottery. Subsequently, lottery tickets had to be purchased from neighbouring states such as Iowa and Wisconsin. Further criticism of the study concerns

the use of a telephone survey, which often have lower response rates than written surveys.

Jacobs (1989) in a review of studies examining American high school youth gambling found that lotteries were consistently one of the most popular forms of teenage gambling. Approximately 41% of participants from five surveys reported lotteries as their most favoured form of gambling. Lotteries were second overall as the most favoured form of gambling, the first being non-commercial card playing with family and friends. In this respect, lotteries can be considered the most popular commercial form of gambling identified in the studies that Jacobs reviewed. Casino gambling was also found to have a high prevalence rate (approximately 15%), and Jacobs noted that in a study by Frank (1988), 75 % of the teenagers who indicated they had gambled in a casino in the previous year had also 'played' a lottery. Concern is expressed over the frequency of underage gambling, which is suggested as being particularly problematic in relation to lotteries. Ladouceur and Mireault (1988) in a study of nine high schools in Quebec (n=1612 ninth to twelfth grade students) found that lotteries were the most favoured form of gambling undertaken by 60% of the students. Furthermore, it was found that 90 % of the parents knew their children gambled, and that 84% did not object. Links have also been found between lottery gambling and drug addictions although the direction of causation is not clear. Berger (1987) in a study of 27 adolescents (11-to 18-years of age) in a drugs rehabilitation unit in Iowa found that 70% had gambled in the past year, and that 65% had bought lottery tickets and many (figures not given) had obtained their gambling money through drug dealing. Although, it should

be recognised that this was a small sample of drug users and we should be cautious about generalising the findings to a wider population.

There has been little research conducted in the UK on adolescent lottery and scratchcard gambling, when compared to America or Canada, due no doubt to the short time that the UK National Lottery has been in operation. Other types of scratchcards (e.g., non *National Lottery Instants*) have been around for many years in the UK, but on a limited scale, and did not provide jackpots as large as *National Lottery Instants*. Furthermore, these other scratchcards were not advertised on a National basis and were not as widely available.

One study that has specifically examined underage gambling on the UK National Lottery and National Lottery 'Instants' was undertaken by Fisher and Balding (1996) commissioned by the Office of the National Lottery (OFLOT) (now the National Lottery Commission). This was undertaken as a response to the growing numbers of media articles about underage participation and general concern from various organisations and individuals. The survey involved 12-to 15-year old boys and girls (n=7200) from eight regions in the UK (all in the South). Findings indicated that 15% of a sub-sample (n=3724) had spent their own money on the National Lottery during the preceding week, 9% of the tickets were bought by adults, and 6% were bought illegally. The reason that this sub-sample was used was that the remaining participants were part of a previous study that did not differentiate between adolescents' buying their lottery tickets in person, or having an adult buy them. The study suggests that if an adult buys a ticket for a person under 16 years of age that this then constitutes a legal transaction.

However, if this rationale were applied to alcohol the argument would seem less convincing. Furthermore, the questions about National Lottery play only ask whether or not the person has spent their own money on the National Lottery. In this way, the survey may be drastically underestimating the numbers of adolescents who are taking part in the lottery on the basis of having a ticket bought and paid for them by family or friends. For these adolescents, whilst they are not gambling with their own money directly, they are still taking part in the process of the activity, and may also be socialised into the activity by well meaning relatives and/ or peers. The important issue is not how much of their own money they might be spending but what is the effect of regular participation.

Frequency of play was found to be influenced by gender, age and weekly income, with boys playing more frequently than girls, older adolescents playing more frequently than younger adolescents, and those receiving £5 a week or more playing more than those who received less weekly income. There was also a strong link identified between regular lottery players and regular fruit machine players. The data relating to scratchcard use were presented rather differently from the lottery data. Frequency data of scratchcard use were established from the question 'How often do you play (National Lottery Scratchcards)?' and indicated that 37% of the participants had played during the last year. Whether these tickets were bought illegally or whose money they were purchased with was not addressed, unlike the questions relating to the National Lottery. Furthermore, the questions that asked how much money participants spent on scratchcards also did not differentiate whose money was being spent, again unlike the lottery questions. This means that comparisons between frequency of play, illegal

purchasing and amounts of money spent cannot be directly compared between the National Lottery and National Lottery Scratchcards.

The report then goes on to highlight the incidence of signs of dependency, relating to National Lottery scratchcard use, lottery tickets are not mentioned. Based on the DSM-IV criteria for pathological gambling, a set of diagnostic questions were incorporated into the questionnaire. Although the frequency of responses for each question is given, there is no indication of how many adolescents were identified as possible pathological gamblers using the DSM-IV criteria. The reason given for this was that the sample was not large enough (n=7200) and not enough respondents were identified as problem gamblers (numbers not given). The argument is that these numbers are not large enough to warrant meaningful statistical analysis. However, the DSM-IV criteria does not need statistical analysis to identify possible problem gamblers, the criteria are applied to each respondent as a separate case. Furthermore, if a sample of 7200 respondents is not large enough then this questions how valid a tool the DSM-IV criteria actually is. The focus of the report then shifts to outlining the differences between regular and non-regular scratched players.

Regular scratchcard players (defined as playing National Lottery Scratchcards at least 2-3 times a week) were found to be significantly more likely to be male, have a weekly income of at least £5, and to come from an ethnic minority group. Three percent (n=189) of the adolescents reported playing lottery scratchcards at least twice a week.

Fisher and Balding's study (1996) also noted that regular National Lottery scratchcard players were more likely to smoke cigarettes, drink alcohol, take illegal drugs and play fruit machines regularly, compared to the other adolescents in the study.

In a more recent study (Fisher & Balding, 1998) (again commissioned by OFLOT) noted that fruit machines were found to be the most popular form of adolescent gambling played by 75% of the sample (n=9774), followed by National Lottery Scratchcards (47%) and then the National Lottery (40%). This time the study also asked if participants bought other non-National Lottery Scratchcards and 5% acknowledged that this was the case. The study found that over half (56%) of the attempts by underage people to buy National Lottery products were successful. Using the diagnostic screening tool DSM-IV-J-R to identify problem gamblers, the study indicated a 1% level of possible problem gambling for National Lottery Scratchcards. Problem gamblers were identified as predominantly male and to have a weekly income of £5 or more per week. It was found that the parents of the problem gamblers were more than twice as likely to have gambled on each of nine different forms of commercial gambling activities compared to the parents of non-problem gamblers. The problem gamblers were more than three times as likely as the other adolescents to report that they thought their parents gambled too much. The problem gamblers' parents appeared less likely to disapprove of adolescent gambling than the other parents. The most common playing companions overall for lottery and scratchcard gambling were the adolescents' parents, although problem gamblers were more likely to play on their own or with friends. One of the most startling findings of this report is the number of adolescents who watched the *National Lottery Live* television programmes, with 84% of the sample watching on

Saturdays and 62% watching on Wednesdays. The explanations given for these large numbers of young viewers are the early schedule of the programmes (before the 9pm watershed) and the combination of celebrities and pop-stars who contribute to the overall 'glitz and glamour' of the shows. Furthermore, approximately twice the percentage of National Lottery Scratchcard problem gamblers reported watching *The National Lottery Live* television programmes 'always', compared to non-problem gamblers. National Lottery scratchcard gamblers were also twice as likely to suggest that *The National Lottery Live* television programme and advertising would influence young people to start playing the National Lottery. However, the DSM-IV-J-R criteria used in the questions about the National Lottery Scratchcards and fruit machines to identify 'problem gamblers' were not used to examine National Lottery gambling behaviour at all. In this respect it is not possible to ascertain how many adolescents in the sample may have had problems gambling on the National Lottery itself.

In relation to parental attitudes, it was found that parents were less disapproving of their children playing slot machines than National Lottery products. This may account for the higher levels of problem gambling identified for slot machines compared to scratchcards. However, when the table outlining gambling companions is examined it is found that 33% of the adolescents play the lottery with their parents compared to 20% who play fruit machines with their parents (scratchcards were played by 17% of the participants with their parents). It is hard to reconcile how parents were reported as less approving of lottery play than fruit machine play, but were also reported as playing the lottery with their children more frequently than fruit machines. However, approval of fruit machine playing may be in relation to holiday events rather than on a daily basis.

The overall impact of the lottery and scratchcards in the UK has yet to be ascertained. However, shortly after the National Lottery was introduced Gamblers Anonymous reported a 17% increase in calls to their helpline, Thomas Cook reported a 20% increase in trips to Las Vegas, and British Airways reported a 44% increase in flights to Las Vegas (Griffiths, 1995e). Further to this, newspapers have frequently carried reports of people developing associated gambling problems (for example Culf, 1995; Bellringer, 1995; Garner, 1995; Griffiths, 1995d; McElvoy, 1995). To what extent the UK National Lottery and scratchcards are affecting adolescents and children is less clear, as there has been very little research conducted in this area. However, there has been a growing awareness that lottery and scratchcard gambling may be widespread amongst young people, and that the effects may be far reaching. For some young people this may even include “addiction” and criminal acts in order to finance these activities. For many more, the influence whilst appearing less severe may be resulting in a significant change in attitudes towards gambling. The state backing of the lottery and scratchcards have made gambling socially acceptable. There are also the links to good causes, high profile advertising, *The National Lottery Live* program and celebrity endorsement, and the easy availability of tickets. Furthermore, the current literature on gambling suggests that scratchcards may have a particularly addictive potential due to their high event frequency. Studies of other types of gambling (for example fruit machines) have shown that adolescent’s lives can be seriously affected by such activities, sometimes to the point of addiction.

Principal Aims

Due to the lack of current research on adolescent UK National Lottery and scratchcard gambling the studies in this thesis were essentially exploratory. The studies examined both social and problem gambling on the UK National Lottery and scratchcards. They also examined the effects that these activities may be having on the attitudes of adolescents toward gambling and, in turn, how this impacts upon their actual gambling behaviour.

Specific aims to be addressed were;

- To discover the prevalence of adolescent participation in the National Lottery and scratchcards
- To explore patterns of social gambling on the National Lottery and scratchcards
- To explore patterns of problem gambling on the National Lottery and scratchcards
- To further develop theory regarding problem gambling in adolescents
- To develop an understanding of how the UK National Lottery and scratchcards may be affecting adolescents in terms of their attitudes toward gambling
- To examine how adolescent's attitudes may influence their actual participation in the UK National Lottery and scratchcards
- To uncover the features that contribute to the development of positive and negative attitudes toward the National Lottery and scratchcards
- To outline different types of adolescent gambling on the National Lottery and scratchcards
- To suggest measures that can be undertaken to reduce under aged gambling on the National Lottery and scratchcards

- To suggest measure that can be undertaken to prevent or reduce adolescent problem gambling on the National Lottery and scratchcards

CHAPTER: 8

DISCOVERING THE PREVALENCE OF SOCIAL AND PROBLEM GAMBLING ON THE NATIONAL LOTTERY AND SCRATCHCARDS

The first undertaking for this thesis was to examine the prevalence of adolescent gambling on the National Lottery and scratchcards. It was necessary to identify patterns of play and discover what factors were linked with these activities. The thesis had to be able to see who was playing the National Lottery and scratchcards, how often they were playing and how much money they were spending on these activities. The study also needed to examine the extent to which some adolescents may have developed patterns of problem gambling.

STUDY 1. A Survey of Adolescent National Lottery and Scratchcard Prevalence

There has been very little research that has examined adolescent participation rates on the National Lottery and scratchcards. Therefore, the first requirement for this thesis was to assess the extent to which adolescent's were actually 'playing' the National Lottery and/ or scratchcards. The specific aims of study one were:

- To examine the prevalence of adolescent lottery and scratchcard playing
- To assess what level of problem gambling may be present on these activities, and
- To explore adolescent attitudes toward the National Lottery and scratchcards, and how this may influence their gambling behaviour.

Method

Design

A questionnaire containing 55 questions was devised to provide data on the frequencies of certain types of behaviour, from simple measures of gambling activity to cases of problem gambling (see appendix p.204). An adapted version of the American Psychiatric Association diagnostic criteria (DSM-IV-J; Fisher, 1993) was also incorporated into the questionnaire to identify possible problem gamblers (see appendix p. 208). The scale asks questions relating to nine dimensions of problem gambling i.e. Progression and preoccupation with gambling, tolerance, loss of control, escapism, chasing losses, lies and deception, illegal acts, family and school disruption, financial bail-out. Fisher (1993) found the scale to be an effective measure when discriminating between children who gambled socially and pathologically on fruit machines.

Pilot Study

This was conducted to test the working effectiveness of the questionnaire. It was administered to a sample of 100 participants from a comprehensive school in the East Midlands area of the UK. After the study had been conducted some questions were re-worded for easier comprehension. The revised questionnaire contained 55 questions, with a combination of five open and 50 closed questions, designed to generate both quantitative and qualitative data. Questions related to age and gender of participants, level of parental play, frequency of lottery/scratchcard play, money spent on these activities, who brought the tickets, perceptions of winning, links to other forms of gambling/gaming, and participants' views on gambling in general.

Main Study

Participants

The total sample consisted of 1195 adolescents (550 Male, 641 female, 4 unspecified; mean age = 13.3 years). The sample was derived from a postal request for participation sent out to 17 schools of which nine eventually took part.

Procedure

The personal and social education (PSE) teachers in the schools administered the questionnaires, during a regular PSE class session. Participants were not required to write their names, in order to maintain anonymity. Instructions were given at the top of the questionnaire, explaining how to complete it, and included a statement guaranteeing confidentiality to the participants. The questionnaire took 15-20 minutes for participants to complete, and were collected by the PSE teachers.

Results

Time and money spent playing

Large numbers of adolescents had played the National Lottery (48%) or instant scratchcards (30%). Most of the adolescents, who played the lottery played only occasionally (64%) although 16% played most weeks and 14% played every week. With regards to scratchcard players, the majority played once a month (44%), 27% played a few times a month, 12% played once a week, 13% a few times a week and 4% played everyday. There were no significant gender differences in frequency of play on either of these activities. Large numbers of the participants illegally bought their own National Lottery tickets (17%) or scratchcards (26%). There were no significant gender

differences in illegal buying. The average amount that adolescents spent per week was £1.53 on the National Lottery and £1.40 on scratchcards. There were no gender differences in amounts of money spent on either the lottery or scratchcards.

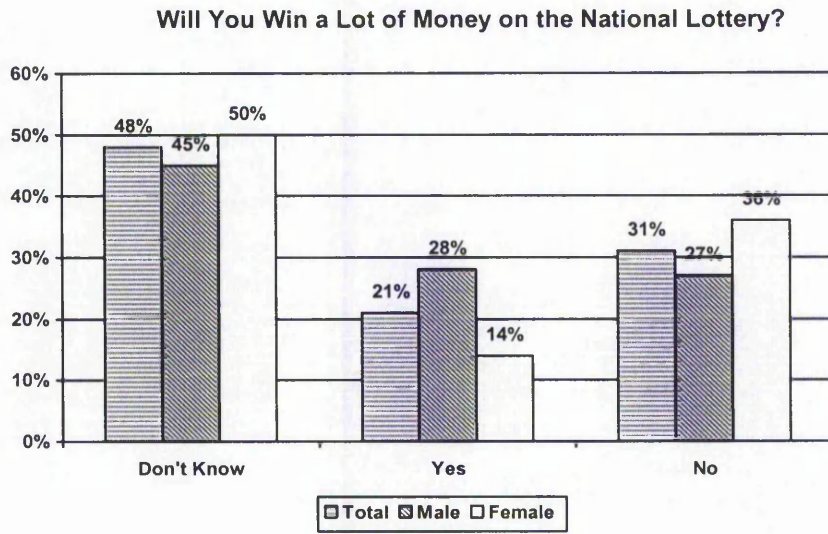
Links with parental gambling

There was a correlation between parental and child participation on the National Lottery ($r = 0.26567, p < 0.0005$), and scratchcards ($r = 0.37838, p < 0.0005$). Furthermore, of the participants who took part in these activities, the majority had their lottery tickets/scratchcards bought for them by their parents (National Lottery 71%; scratchcards 57%).

Perceptions of winning

A large number of the participants reported that they thought they would win a lot of money on either the National Lottery (21%) or scratchcards (25%) (a lot of money was defined as over one million pounds by 67% of the participants). There was also a significant association between gender and perceptions of winning the National Lottery ($\chi^2 = 0.17695, p < 0.0005$) and on scratchcards ($\chi^2 = 0.19801, p < 0.005$). Further analysis revealed that male participants were more optimistic than females about winning a lot of money on the National Lottery (males 21%; females 14%) and scratchcards (males 25%; females 19%). Female participants were more pessimistic than males about winning and were more likely than males to report that they would not win the National Lottery (males 27%; females 36%) or scratchcards (males 16%; females 30%) (see Fig 1).

Fig 1.



Perceptions of The National Lottery and Scratchcards

Of the participants who said that gambling was a bad idea (72%), almost half (49%) suggested that the National Lottery was a good idea and 33% suggested that scratchcards were a good idea.

Problem gambling

Levels of problem gambling were examined using the DSM-IV-J addiction scale adapted from The American Psychiatric Association Diagnostic Criteria (Fisher 1992). On the basis of answering “yes” to four or more questions on the scale, it was found that 6% of players might be problem gamblers on the lottery (26 male, 11 female). For scratchcards the level was also 6% of players (18 male, 7 female). Aside from these possible problem gamblers, many more participants answered “yes” to some of the questions on the scale (see table 1). In particular the question “*Do you often find yourself thinking about the lottery/scratchcards at odd times of the day/and or planning the next time you will play*”? produced a high number of “yes” responses in reference to both the lottery (32%), and scratchcards (16%) Significantly more males than females answered “yes” to this question in connection with the lottery (males 36%, females 25%, $\chi^2 = -0.12, p < 0.005$). The results showed a similar pattern for the question “*After spending money on the National Lottery/scratchcards do you play again to try and win your money back (more than half the time)?*” (see table 1; chase losses). There was a high level of “Yes” responses for both the lottery (35%) and scratchcards (29%). Again significantly more males than females answered “yes” to this question in connection with the lottery (males 40%, females 35%, $\chi^2 = -0.15, p < 0.0005$). Furthermore a large

minority of the participants answered that they were in fact worried about how much they spent on the lottery, and scratchcards (both 17%).

Table 1. Percentages of Players Showing Diagnostic Criteria of DSM-IV-J

DSM-IV-J Criterion	% male lottery players	% female lottery players	% total	% male s/card playe rs	% female s/card player s	% total
Think about lottery/scratchcards at odd times/planning next time	36	25	32**	18	13	16
Need to spend more on lottery/scratchcards	13	5	10**	15	7	12
Restless/tense when trying to cut down/stop playing	10	6	9*	7	6	7
Play to escape problems	10	5	9*	10	2	6**
Chase losses	40	26	35***	30	28	29
Lie to family and friends	6	3	5	7	4	6
Spend school dinner/bus money on lottery/scratchcards	7	5	6	8	5	6
Stole money from family for lottery/scratchcards	4	2	3	4	4	4
Stole from outside family/shoplifted	4	1	3*	8	2	5*
Argue with family/friends over lottery/scratchcards playing	3	4	4	7	4	6
Missed school (5 times or more) to play lottery/scratchcards	3	2	3	6	2	4
Sought help for money worry because of lottery/scratchcards	2	1	2	3	2	2

***=0.05 **=0.005 ***=0.0005 significance level of gender differences derived from
Chisquares**

Discussion I

Study one indicated that large numbers of adolescents in the UK were taking part in the National Lottery and/ or playing on scratchcards. This appeared to be true for both male and female adolescents, who reported approximately equal level of play on both these activities. Whilst a significant number of adolescents seemed to be buying their own National Lottery tickets and scratchcards illegally, a more worrying aspect may be the number of parents who were buying lottery tickets and scratchcards for their children. Studies of other forms of gambling have shown strong links between parental and child gambling, and have indicated that when gambling begins in childhood the person is more likely to become a problem gambler as an adult (Ide-Smith & Lea, 1988; Fisher, 1993; Winters, Stinchfield & Fulkerson, 1993; Griffiths, 1995b).

Parents apparent willingness to buy lottery tickets and scratchcards for their children perhaps reflects a perceptions of these activities as non-gambling events. It is hard to imagine parents regularly placing bets on horses on behalf of their children, as horse racing is firmly perceived to be a bona fide form of gambling. However, this does not appear to be the case for the lottery or scratchcards, which may have been legitimised as socially acceptable to large sections of society. This acceptability appears to be due to a number of factors. For instance, the National Lottery and scratchcards are sanctioned by government, allowed to advertise widely and are available in a variety of public places such as Post Offices, supermarkets, petrol stations and newsagents. Furthermore, the National Lottery has bi weekly prime time television shows that incorporate celebrities and pop bands who, in effect, endorse the National Lottery product. These television shows have a particular appeal for adolescents because of the "pop groups" who appear

on the programme (e.g., The Spice Girls, Boyzone) and are hugely popular with the under 16 years of age group.

The effects of these activities on adolescents may be considerable, as not only are they exposed to these products in a variety of public places, many also observe their parents taking part. In many cases their parents may be encouraging them to play by buying them National Lottery tickets or scratchcards. It should perhaps be noted at this point that a weakness in this study is that all the data were derived from self-report measures. For instance, all the parental gambling data relies on third-party assessment (i.e. the children's self-report of their parents gambling behaviour). This of course may or may not be valid and as such the data should be treated with some caution.

There was strong evidence to indicate that these young people may not actually perceive the National Lottery and to a lesser extent scratchcards as a form of gambling. The National Lottery in particular was not seen as gambling by significantly more adolescents compared to scratchcards. Of the participants who said that gambling was a bad idea, almost half (49%) suggested that the National Lottery was a good idea and 33% suggested that scratchcards were a good idea. This perhaps indicates a greater awareness of the negative effects of scratchcards due to adverse publicity regarding this product. It is not hard to recall news items referring to "scratchcard addiction" (e.g., Culf, 1995). Further to this, problem scratchcard gambling featured as a major storyline in the U.K. soap-opera *Brookside*, with one of the characters (Rosie Banks) suffering from 'scratchcard addiction.' Such examples may suggest the effectiveness of the media to alter the general public's opinion towards gambling (albeit unintentionally), and highlights how sophisticated marketing techniques can be used to encourage adolescents

to take part in these activities. This is not say that the lottery operator directly encourages underage participation, but most marketers acknowledge that that today's children are tomorrow's consumers – or in this case gamblers.

Another major finding of this study was the high percentage of adolescents who thought that they would win a lot of money on either the lottery and/ or scratchcards. The adolescents who thought that they thought they would win a lot of money on either the lottery or scratchcards were predominantly male. This perhaps indicates that male adolescents are more optimistic than female adolescents in relation to gambling. Alternatively, female adolescents may be more realistic in their prediction of the outcome of events.

It is clear that most adolescents have control over their gambling behaviour. However, it is interesting that the level of pathological gambling found in this study was similar to the prevalence rate identified by Fisher (1993) in her investigation of fruit machine use amongst children of the same age group. Her research showed a level a pathological gambling rate of 5.7%. Study one showed very similar levels on both the National Lottery (6% of players) and scratchcards (6% of players). Although there were no significant gender differences in participation rates problem gambling was found to be a predominantly male phenomenon. The finding that problem gambling occurred on both the National Lottery and scratchcards was quite surprising as Griffiths (1987) has speculated that the National Lottery in it's present form (i.e. a bi-weekly draw) was unlikely to be problematic due to the low event frequency (i.e. only twice a week to be rewarded). However, it may be that some adolescents are getting a "buzz" or "high" when they successfully buy lottery tickets illegally. If the act of buying the ticket itself is

physiologically and psychologically rewarding then it is not hard to see why some adolescents may develop gambling problems on the National Lottery. Alternatively, there may be other elements of the National Lottery that adolescents find particularly attractive, such as the fantasy of winning the jackpot. This is an area that will be investigated further in studies two and three.

The lottery and scratchcards appear to be promoted equally to both sexes, and they can be undertaken in fairly gender neutral environments (for example Post Offices and newsagents) as opposed to predominantly male arenas such as betting shops. The level of male problem gambling suggests that gambling for male adolescents may have a different meaning than for female adolescents. Indication of this was found during the study, in relation to general gambling attitudes and perceptions of winning. The greater acceptance of general gambling by males may reflect the predominance of gambling as a largely male pursuit. Male adolescents may form some kind of legitimisation through the observation of male role models (e.g. father, brother) and adhere to the basic tenets of social learning theory (Bandura, 1986). Alternatively, cognitive factors such as illusion of control (Langer, 1975) may be different between male and female adolescents or it could be that males may receive a more physiologically rewarding response to gambling than do females. More research is needed to determine the differing attitudes and perceptions of gambling between male and female adolescents, and arousal/excitement levels.

It is worth noting that many more adolescents reported some aspects of problem gambling. In particular there were high response levels to the question "Do you often find yourself thinking about the National Lottery/scratchcards at odd times of the

day/and or planning the next time you will play”? and “After spending money on the National Lottery/scratchcards do you play again to try and win your money back (more than half the time)?” There are two points to be made here. Firstly, these questions appear to highlight significant aspects of lottery and scratchcard participation. In particular the lottery appears to appeal to adolescents’ imaginations and occupy everyday thoughts, perhaps providing a means of escapism. The degree of escapism that the National Lottery can provide may have an equivalent affect to the rapid event frequency of scratchcards. Second, both the National Lottery and scratchcards seem to provoke high levels of chasing losses. Whilst this is significant in terms of the structural characteristics of these games, it poses questions about the validity of the DSM-IV-J addiction criteria. Only four affirmative answers are required for a diagnosis of pathological gambling. If large numbers of adolescents are answering “Yes” to two of the questions, it may not be working as an effective discriminator between “social” and problem gambling. Furthermore, the scale does not allow for the severity of behaviour to be assessed (for example some adolescents may think about the lottery or scratchcards for most of the day, whilst others think of them only occasionally). In future, the use of a Likert type scale may in this respect help to demonstrate the severity of a person’s thoughts and behaviours.

CHAPTER: 9

FACTOR ANALYSIS OF THE SURVEY DATA

Further analysis of the survey data was undertaken to examine in more detail the patterns of National Lottery and scratchcard play. No more subsequent correlations, were found, and multiple regression provided no meaningful output. However, the data for the National Lottery and scratchcards was split and analysed independently using maximum likelihood factor analysis. This method successfully identified three distinct factors in relation to the National Lottery, and three distinct factors relating to scratchcards. The correlation matrix was rotated using Varimax Rotation with Kaiser Normalization.

Results

National Lottery Factors

Three factors emerged in relation to the National Lottery. Variables with eigen values greater than 0.3 were considered significant for each factor. Each significant variable related to a question on the survey, so that examining each of these questions allowed factor accounts to be constructed and defined (For table of eigen values see appendix 209).

Factor 1. Money matters

This factor related to money matters concerning the National Lottery. A high degree of weekly spending was related to a large amount (£10 or more) reported for the most spent on the lottery. Tickets were bought, primarily, by family and friends and the chance of

winning the jackpot was reported as high. This factor also demonstrated a high level of chasing losses (i.e. trying to win back previously lost money) and spending a lot of time thinking about playing the National Lottery.

Factor 2. Negative consequences

This was concerned with the negative consequences of lottery playing and/ or behaviour designed to facilitate lottery playing. Truancy from school to play the lottery was reported. Stealing money from both inside and outside the family was included, as were spending dinner money and spending less on other things to play the National Lottery. Family and friends were lied to and constituted an area of conflict.

Factor 3. Coping strategies

There were some cross loadings on this factor with variables in factor two, in that both spent less on other things to play the lottery. Also, they both lied to their family and friends about the extent of their lottery playing. However, there were several specific features to this factor that may best be described as using the National Lottery as a coping strategy. These elements were; using the National Lottery as a means of escaping from problems, spending more and more money on the National Lottery, and getting restless and fed up when they could not play the National Lottery.

Factor analysis of adolescent scratchcard survey data

Three factors emerged in relation to the scratchcard data. Variables with eigenvalues greater than 0.3 were considered significant for each factor. Each significant variable related to a question on the survey, so that examining each of these questions allowed factor accounts to be constructed and defined. (For table of eigen values see appendix 210).

Factor 1. Money and social factors

Factor one represents a pattern of social play, and preoccupation with money. Scratchcards were bought mainly by family and friends, and parents also played scratchcards. This factor scores high on the belief of one day winning a scratchcard jackpot. This factor spends the most money on scratchcards, and reports frequently trying to win back lost money (chasing losses).

Factor 2. Negative consequences

Factor two is concerned with the negative consequences of scratchcard gambling. Two variables marginally cross loaded with factor one, relating to how much money is spent on scratchcards and chasing losses. More characteristic of the factor is feeling restless and/or tense when not able to play scratchcards, truanting from school, family conflict, and stealing from within and outside the family. There may be some realisation of problem gambling here as the factor scores high on the 'seeking help' variable. The factor also scores high on spending more and more money on scratchcards, thinking about scratchcards a lot, spending dinner money on scratchcards, spending less on other

things to play scratchcards and playing scratchcards as a means of escaping from problems.

Factor 3. Family conflict

All of the factor three variables cross loaded with some of the variables in factor two. However, the degree of loading is markedly different. This factor is characterised by a high degree of family conflict. In particular, this factor loads heavily on lying to family and friends about scratchcard playing, and stealing from the family. Other variables associated with this factor are stealing from outside the family, spending dinner money on scratchcards and playing to escape from problems.

Discussion II

These factors identify characteristics of adolescent National Lottery and scratchcard play that are clustered together. They do not represent individual participants as such. Some participants reported behaviour that could fall into more than one factor. However, the factors do identify prominent patterns of play and may tell us a great deal about adolescent gambling behaviour, and attitudes toward gambling. It should be noted that the majority of the variables relate to questions from the DSM-IV-J (Fisher, 1993) pathological gambling scale. This means that the factors identified relate more to aspects of problem gambling than they do to elements of social gambling.

The factors identified also show the similarities and differences between the National Lottery and scratchcards, both in terms of reported behaviour and attitudes. The lottery is associated with winning large sums of money and optimism about winning. This is something that is clearly seen when there is a rollover week and approximately 20% more tickets are sold (Camelot, 1995). It is clear that this focus on money and the prospect of winning provides a means of fantasy and escape for some adolescent players. The analysis also identifies some areas that relate to negative consequences, as a result of problem gambling on the National Lottery. This is particularly apparent in terms of family conflict, that may well be as result of trying to obtain money to play, and attempting to hide the extent of that playing (e.g. truanting and lying to family and friends). The third lottery factors appear to relate to other underlying problems that adolescent's may have. This factor describes lottery playing as a means of general escape. This may be a kind of coping strategy, rather than for the sake of winning, or as a pattern of problem gambling. Adolescence is a time of much emotional turbulence. Many past studies have found adolescent gamblers to be more susceptible to problem gambling (Arcuri, 1985; Lesieur and Klein, 1987; Jacob, 1989; Fisher, 1993; Winters et al 1993; Griffiths, 1995a; Gupta & Derevensky, 1998). It appears that the National Lottery is no different to other forms of gambling in this respect.

Scratchcard playing, like the National Lottery, was also identified as being directly related to the thrill of winning large amounts of money and for some there appears to be a high degree of optimism about winning a scratchcard jackpot. This was identified in the earlier correlational analysis, where optimism about winning was found to be a primarily male phenomenon, on both activities. Negative consequences were also a major element to emerge from the analysis of the scratchcard data. However, here the

two activities differed slightly in their reported effects. Scratchcards appear more problematic than the lottery, particularly in terms of feeling restless and tense if not able to play scratchcards. Scratchcard players were also more likely to have sought help about their gambling, or be worried about their gambling behaviour. This would seem to reflect the major structural differences as identified in chapter 6. That is, scratchcards provide a more instantaneous, and perhaps, more physiological feedback than the National Lottery. The National Lottery on the other hand appears to be more about escapism and fantasy. In some cases lottery play may be used as a means of escapism from other problems. Finally, scratchcard playing was identified by one factor as loading high on family conflict issues. This may relate to the more negative public image of scratchcards perceived by some parents, although the first scratchcard factor identified scratchcard play as a social activity.

The factor analysis highlights some key issues relating to adolescents and these gambling activities. In particular, it provides a means of identifying key problem gambling issues that need to be addressed. The results also may also inform the approach that can be taken by education or public awareness campaigns. Study one highlights the complex nature of gambling and how social, psychological and physiological factors can never be completely separated or examined in total isolation from each other. Gambling, to some extent, means different things to different people at different times, and simplistic accounts that ignore this complexity provide little in the way of explanation.

ADOLESCENT ATTITUDES TOWARD NATIONAL LOTTERY AND SCRATCHCARD GAMBLING

Discussion III

Study one also incorporated a number of attitudinal dimensions designed to examine adolescents attitudes towards the National Lottery and scratchcards. The following attitudinal dimensions highlight the link between adolescent attitudes to lottery and scratchcard gambling and their actual gambling behaviour.

As noted earlier study one found that 48% of the adolescents played the lottery and 30% played scratchcards, either directly themselves or with family and/ or friends. Therefore, the first, and most obvious, indication of an attitude / behaviour link is demonstrated by a direct association between the participants' overall evaluation of the lottery and scratchcards, and their reported behaviour. There was a degree of correlation between participants expressing that the lottery was a good idea and reported lottery play ($r=0.171$, $p>0.000$), and also between reporting that scratchcards were a good idea and reported scratchcard playing ($r=0.242$, $p>0.000$). This demonstrates that those participants who agreed that *'the National Lottery and/ or scratch cards are a good idea'* were also the most likely to actually play. This finding, whilst significant, is a rather simplistic association that needs to be examined in more detail if it is to be considered both an accurate and useful explanation. However, by examining the overall findings in relation to the theory of planned behaviour (Ajzen, 1988) it can be demonstrated how each of three attitudinal dimensions contributes to the development

of the behavioural intention to play these activities, and consequently the actual gambling behaviour.

Personal Beliefs

The first element of the participant's attitudes examined were their personal beliefs about the activity itself. As noted it was found that there was a strong correlation between expressing that the lottery/scratchcards were a good idea and reported playing of the lottery/scratchcards. However, it was also found that the majority of participants were opposed to gambling in general, in that they thought it was a bad idea (76%). This meant that of the participants who had indicated that gambling was a bad idea 49% of them also thought that the lottery was a good idea, and 33% thought that scratchcards were a good idea. Therefore it was evident that many participants did not regard these activities as bona fide forms of gambling.

Subjective Norms

The second attitudinal element identified concerns subjective norms, that is, the extent to which the individual believes that the behaviour is socially acceptable. The strongest indication of this dimension was illustrated by a link between parental and child gambling. There was a correlation between parental and child gambling on both the lottery ($r = 0.26, p < 0.0005$), and scratchcards ($r = 0.37838, p < 0.0005$). Furthermore, a large percentage of the participants had their lottery ticket and/ or scratchcards bought for them by their parents (71% of the lottery playing participants and 57% of the scratchcard playing participants).

Perceived Behavioural Control

The final attitudinal element identified relates to the extent to which the participant's believed that a particular behaviour was actually attainable. In relation to the lottery and scratchcards, this can be rationalised in two ways. First of all we can examine whether or not the participant believes that they that they will be able to successfully purchase a lottery ticket or scratchcard, and secondly the extent to which the participant believes that they will actually win anything on these activities. In relation to the purchasing of the products the study found that vast the majority of purchases were made by relatives (lottery 71%, scratch-cards 57%), although a significant minority purchased their own tickets and/ or scratchcards illegally (17% lottery, 26% scratchcards respectively). In relation to perceptions of winning the questionnaire asked whether or not the participants thought that they would ever win a lot of money on either the lottery or scratchcards (a lot of money was defined as over £1 million pounds by 67% of participants). Results demonstrated that 21% of the participants who played the lottery and 25% of those who played scratchcard reported that one day they would indeed win a lot of money. Clearly then many adolescents have a high degree of perceived behavioural control towards these activities both in terms of actually taking part, and (to a lesser extent) winning the jackpot.

Further Discussion

The following section will examine in more detail explanations for the attitude dimensions identified. This will be followed by a series of suggestions on how these perceptions may, in future, be challenged.

Personal beliefs & subjective norms

It was clear from the findings of this study that the majority of the participants did not regard these activities as bona fide forms of gambling, and it is perhaps easy to understand why this might be the case. First of all, many of these young people experience their family and friends using these products on a regular basis, and indeed many parents bought tickets and/ or scratchcards for their children. Most other forms of gambling in the UK, by contrast, are clearly defined, and take place in easily identifiable establishments (e.g., betting shops, bingo halls). However, National Lottery products are widely accessible in popular and respectable outlets (e.g. Post Offices, supermarkets) and, therefore, are often not perceived as gambling activities. Other legitimising sources include live bi-weekly television programs broadcast on the BBC (itself a bastion of respectability), links to charitable good causes and the promotion of these products by celebrities, of whom many appeal directly to young people such as pop bands (e.g. *Boyzone, 911, Spice Girls*). This legitimisation process can be explained using cognitive learning theory (Bandura 1986). The observation of significant others (such as family, friends, pop stars, celebrities) using these products may result in young people modeling this behaviour. This widespread social acceptability and availability may also explain why so many participants demonstrated a positive subjective norm toward these

products. It is clear that these activities are being positively promoted at a number of levels, from the family all the way through to the popular media. This creates the impression that the lottery and scratchcards are approved by both society and, in many cases, the family.

Perceived behavioural control

One of the most startling results of this study concerns the numbers of participants who suggested that they would one day win a lottery or scratchcard jackpot. The availability heuristic (Kahneman & Tversky 1982) suggests that such misperceptions about the chances of winning can occur when a person has to make decisions based on the availability of limited information. In relation to lottery play it is far easier to recall jackpot winners, as they receive a lot of publicity, than it is to recall the losers. On a more individual level we might predict that a family member actually winning a prize, constitutes a more memorable event than a regular pattern of losses. There is also evidence that some people have difficulty grasping the concepts of basic probability. It appears that many people focus on the amount that can be won rather than the actual chances of winning that amount. This is demonstrated most obviously (although by a predominantly adult population) when there is a rollover week (money carried over from a previous draw, and added to the current draw) where in the UK typically 20% more tickets are sold (Camelot, 1995). The odds of winning are still the same, it is only the amount that can be won that has changed.

The other major element of perceived behavioural control identified by the study related to how easy the participants thought it would be to obtain a lottery ticket and/ or scratchcards. It has already been noted that the majority of the lottery and scratchcard

playing participants had their tickets and/ or scratchcards bought for them by family and/ or friends. Presumably these young people must already have a high level of perceived behavioural control in relation to obtaining their tickets. Similarly, the minority of participants who buy their own tickets (illegally) must also experience a high level of control. Furthermore, a study by Fisher and Balding (1997) found that 58% of under-aged people (Under 16 years of age) in their survey thought that it would be easy to buy a lottery ticket illegally, and 63% thought the same would be true for scratchcards. Clearly many young people feel that they have a very good chance of being able to take part in these activities, for some this is also borne out by direct behavioural experience.

The full implications of the lottery and scratchcards on our society have yet to be determined. However, the evidence from study one and previous adolescent gambling studies indicate that the National Lottery and scratchcards could contribute to a dramatic increase in problem gambling in the U.K. For many more adolescents, their views towards gambling may be radically altered. The government sanctioning of these activities, the high level of advertising, links to "good causes" and The National Lottery television programs may all play a significant role in this process.

CHAPTER: 11.

Adolescent Accounts of the UK National Lottery and Scratchcards:

Study one identified the prevalence of adolescent gambling on the National Lottery and scratchcards both in terms of social and problem gambling. It also examined attitudinal elements that were associated with gambling on these activities. What study one could not do was to say which elements of these activities were most salient to adolescents. Study two was designed to examine, in more detail, how adolescents construct their accounts about the National Lottery and scratchcards. What did they perceive to be the key issues in this area? Furthermore, study one could not accurately identify the different ways that adolescence view these activities. Would the National Lottery and scratchcards be viewed by adolescents in a broadly uniform way or would they have a different meaning to different adolescents? If widely different views did exist then what could they tell us about the meaning of these activities in the context of adolescent's lives? For example, it is very difficult with surveys to determine how important one issue is compared to another issue. This is particularly true when making comparisons between different participants using a standardised, and relatively rigid, measurement tool such as a questionnaire. Therefore, Study two utilized Q-sorts as a means of more cogently expanding upon the different perceptions that adolescents may hold about the National Lottery and scratchcards.

Study two: An Analysis Using Q-methodology

Introduction

Previous research examining adolescent lottery and/ or scratchcard gambling has tended to focus on the minority who actually buy lottery tickets or scratchcards (Ladouceur & Mireault, 1988; Winters, Stinchfield & Fulkerson; 1993; Browne, 1993; 1994; Fisher & Balding, 1996; Fisher, 1998; Fisher, 2000). However, it could be argued, in the U.K. at least, that those adolescents who do not take part 'directly' in these activities, are still very much subject to the cultural phenomenon that is *'The National Lottery'*. This experience begins with the advertising presented on television and radio, in newspapers, on billboards, and in shop windows. It also includes two 'prime time' television shows (Wednesday and Saturday evenings) and related news broadcasts (e.g., announcements of winning numbers). There is the publicity surrounding winners and, finally, there is the (ever popular) conversation that usually begins "*What would you do if you won the lottery?*" In this respect, it is clear that a person does not need to gamble on the National Lottery or scratchcards to be affected by them, or at the very least formulate personal views about them. It is perhaps these views that are of paramount importance for they may eventually be used to decide whether to take part in the future, and could conceivably help formulate views about gambling in general. Whilst personal views are by definition subjective, it is useful to investigate what they entail and how they may be formed, as there will undoubtedly be common themes that will emerge between people. On the whole the impact of the National Lottery for most people, at a media level at least, is a uniform experience, and so we might expect there to be a number of similar views. Although, some degree of variation would still occur due to individual differences and experiences. Knowledge of these views is useful for a number of

reasons; (i) it helps us to develop an understanding of why people decide to gamble, (ii) it may provide ideas on how to address erroneous gambling perceptions (common in many problem gamblers), and (iii) could also be used to develop prevention strategies, both to prevent gambling behaviour (in minors) and to encourage responsible gambling (where legal).

Study two investigated in more detail how adolescents view these activities by examining their accounts of issues related to both the National Lottery and scratchcards. While there have been a number of published studies that have examined lotteries and scratchcards in relation to adolescents (Ladouceur & Mireault, 1988; Winters, Stinchfield & Fulkerson, 1993; Browne, 1993; 1994; Fisher & Balding, 1996; Fisher, 1998; Fisher, 2000) these have not generally examined how young people may actually view these activities, these views may have important implications for prevention, intervention and (possibly) treatment. To examine these views the study utilised Q-sorts (for more details, see next section), as they provide the participants with a chance to express their unique viewpoint in response to statements generated by similar groups of participants from previous research, relevant literature and the researchers own ideas. This is by no means a purely objective means of selecting the statements for the researchers ultimately decide which statements are to be included in what format. However, the statements were selected s to provide a diverse selection of views, enabling the participants to construct detailed evaluative accounts.

Method

Design and rationale for using Q-methodology

Q-methodology is concerned with subjectivity, and means nothing more than a person's communication of his or her point of view, on any issue that is personally and/ or socially salient (McKeown & Thomas, 1988). In this sense study two was not trying to simply measure the participants' behaviour. Instead the study was designed to develop an understanding of that behaviour, or at least an understanding of some of the views that may inform such behaviour. Q-methodology employs the Q-sort as the main method of investigation. Q-sorts are similar to semi-structured interviews in that the participants' responses are rated on a scale according to the extent that they agree or disagree with the statements (known as Q-cards) that they are given. However, responses are also rated in relation to one another, and in this way the most salient aspects of each Q-sort are allowed to emerge. Furthermore, each participant is free to arrange and re-arrange each statement at their leisure, rather than having to try and justify their responses in relation to previous answers, and/ or subsequent answers. The statements can be generated from a variety of sources including, interviews, previous research, the gambling literature and personal ideas. This provides the opportunity of representing a diverse selection of views, and allows participants to play a more active role in the research process. It also means that the researcher can be less presumptuous about what are, and what are not, the most personally significant issues on any particular topic. The Q-sorts of all the participants are then correlated and factor analysed so that those people who have ranked their statements in very similar ways are

grouped together as distinct factors. Therefore, each of the factors defines a unique way of representing the particular issue that is being investigated.

This approach is radically different to most forms of psychometrics that usually aim to measure participant's responses to predefined operationalised concepts for example, IQ scores and personality scales. With Q-methodology the aim is to deconstruct socially constructed phenomena (Stainton Rogers & Stainton Rogers, 1988) in this case the National Lottery and scratchcards. Therefore, study two was concerned with discovering what ideas the participants regarded as most salient to these activities. Q-sorts provide a subjective quantitative means of studying participants' views on a particular topic that provides a high level of negotiation with the participants. The unique value of this method is that it is securely grounded in the viewpoints of the people being studied and the researchers can be sure that they are dealing with relevant points of view.

Participants

Sixty two participants from three schools in the East-midlands area of the UK took part in the study (a further eight schools declined to take part). There were an equal number of males and females, and they ranged in age from 11-to 15-years of age. Large numbers of participants are unnecessary with Q-sorts as participants are typically selected to represent a wide selection of beliefs. Whilst the sample population in the present study was limited by access, the sample itself consisted of a fairly diverse selection of individuals in terms of background, race, academic ability and attitudes toward gambling. It is not suggested that these people somehow represent adolescent's in general, rather that they give a snapshot of some of the ways young people perceive the National Lottery and scratchcards. Essentially, *Q-methodology is not concerned with the*

frequency of how many people are doing something, but is concerned with exploring a diverse selection of viewpoints (Stainton Rogers, 1995). Accordingly, any Q-sort should have more Q-cards (statements) than participants, otherwise factors will simply become replicated. Thus, the concept of *finite diversity* reflects one of the main tenets of Q-methodology, that people's perceptions of any given phenomena will be constrained by what Keynes (1921) referred to as 'the principle of limited independent variety.' Stainton Rogers (1995) suggests, that this may now be related to notions of limited social representations. In this sense there are only a limited number of linguistically and culturally specific ways of accounting for any particular phenomenon.

Procedure

Pilot Study

A pilot study was conducted in a youth club in Liverpool with a focus group of five participants (2 male, 3 female, aged 13-15 years of age) and a youth leader. The interview helped generate statements for the Q-cards and ensured that the participants would play a more active role in defining the issues that would be examined by the final Q-sorts.

Main study

A set of 49 Q-cards pertaining to the lottery were given to 31 of the participants (see appendix p217), and another 31 participants were given a similar scratchcard related set (see appendix p219). Q-sorts were conducted in classrooms with between ten and fifteen participants compiling them simultaneously, in silence. The statements were derived from several sources including the gambling literature (including aspects of the DSM IV-J gambling scale; Fisher, 1993), statements generated by participants from study one, the pilot study, and statements chosen to examine adolescent views on lottery and scratchcard advertising and legislation. Together these statements represented a number of attitudinal dimensions that sought to account for a diverse selection of views (see fig 1).

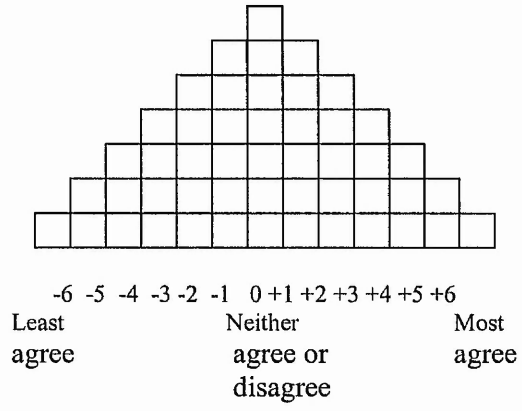
The researcher explained the nature of the task and how to undertake it, and in addition instructions were provided on a response sheet. Typically participants do not have a response sheet (see appendix p221) and instead place their cards on a table or the floor, according to instructions. However, as this study involved young people of a variety of ages a response sheet was formulated, to make the task easier to understand. The response sheet also made the scoring of the cards easier to complete, and enabled groups of people to complete sorts simultaneously. The participants were only required to divulge their age and gender, were assured that only the researchers would see their response sheet, and reassured that there were no right or wrong answers. Each participant arranged the 49 Q-cards, by sorting them into piles ranked from -6 (least agree) to +6 (most agree) in accordance with a forced sort matrix (see fig 2).

Figure one outlines how the various dimensions were derived for the statements used in the Q-sorting task. The main components outline the basic categories of statements and the subcomponents detail how these were broken down and defined in more detail

Fig 1. Q-statement dimensions

Main Components Examined	Subcomponents	
A. Direction	Pro-Scratchcard/lottery Pro-Gambling	Anti-Scratchcard/lottery Anti-Gambling
B. Beliefs	Luck Skill	Chance Misperception
C. Issues	Problem Gambling Awareness	Legislation Advertising
D. Motivations	Money Social Factors	Fun/Excitement Escape

Fig 2. A Forced Sort Matrix/ Response Sheet



The forced sort matrix ensures that the participants make stringent choices as to which statements are most salient to them personally. When the participants had arranged the cards on the grid, and were happy with the order, they wrote the number of each card on the grid box underneath. The researcher then collected all the response sheets and debriefed all the participants. Once the Q-sorts had been completed factors were analysed using the software package PCQ using centroid factor analysis. Separate factor analysis was carried out for the National Lottery sorts and the scratchcard sorts. Any factors with an eigen value greater than one were then rotated using varimax rotation.

Results

Factor analysis identified four significant factors in relation to the National Lottery representing four distinct accounts (*Moral Opposition, Luck Seeking, Rationalist and Uncertainty*), and four distinct accounts pertaining to scratchcards (*Scepticism, Thrill Seeking, Rationalist and Libertarian*). The emergent views were compiled by devising a model sort that compared the scores of each factor identified against each of the 49 statements (see appendix p211-214). Any statement that scored either -3 and below, or +3 and above, or that was at least three numbers away from any other factor's score (on that statement) was used to define the summary of accounts given below. These accounts do not represent a set of people per se, and in fact several sorts expressed views that would overlap into a number of the accounts identified. However, each account is a representation of a unique way of perceiving the National Lottery and scratchcards.

National Lottery Accounts

Account A *Moral opposition*

This represented a very negative view of gambling (in general). The lottery was perceived as a bona fide form of gambling that may also be addictive. It was also expressed that the lottery can make a person sad, and it was proposed that the National Lottery should be banned. The idea that people of any age should be allowed to play was rejected. It was also reported that the lottery was disliked by family members and/or peers. No misperceptions about lottery gambling were demonstrated, although luck was regarded as the same as chance. This view demonstrated the belief that you get what you want in life by working hard and money was not considered the most important thing in life. The idea of being alone most of the time was positively expressed.

Account B *Luck seeking*

This account demonstrated a positive view of the lottery, did not think it should be banned and disagreed strongly that lottery jackpots were too big. A firm belief in luck was expressed and it was suggested that the lottery was all about luck. The lottery was regarded as a gambling activity, and few misperceptions about lottery gambling were evident, except for the notion that buying more tickets would significantly increase a person's chance of winning the jackpot. There was an awareness that some people spend too much money on the lottery, and a feeling that you get what you want in life by working hard. The law was not seen as an effective deterrent to under-aged gambling. This view expressed a positive desire to spend time with family and friends.

Account C *Rationalist*

This account perceived the lottery as a bona fide form of gambling and felt that lottery jackpots were too big. It was suggested that lotteries may be addictive, and that some people spend too much on them. However, there was strong opposition to the idea that the lottery should be banned, although the idea that people of any age should be allowed to play was rejected. The chances of winning a lottery jackpot was rated as extremely unlikely, as was the idea of winning any amount of money on the lottery. No misperceptions about lottery gambling were expressed except for the idea that luck is the same as chance. The idea of being alone most of the time was negatively rated, and being around family and friends was very highly rated. This view suggested that you get what you want in life by working hard, and money was not accepted as being the most important thing in life. The notion of luck was firmly rejected and the idea of winning purely by chance was accepted instead.

Account D *Uncertainty*

This view also perceived the lottery as a form of gambling. There was uncertainty as to whether or not the lottery is addictive, although there was awareness that some people spend too much money on the lottery, and that jackpots were too big. There was a negative perception of family and peer attitudes toward the lottery. Although the lottery was perceived as having nothing to do with luck, it was suggested that some numbers were luckier than others, and that luck is the same thing as chance. It was suggested that using the same numbers each week means a person is more likely to win. The idea of

being alone most of the time was strongly rejected, and the idea of being around friends and family positively rated. This view strongly denied the idea that money can buy a person happiness.

Scratchcard Accounts

In relation to scratchcard gambling Study two identified four distinct accounts. These accounts are detailed below.

Account A *Scepticism*

This view acknowledged scratchcards as a form of gambling that was felt to be addictive. No misperceptions about scratchcard gambling were expressed, although a belief in lucky streaks was demonstrated. Scratchcards were thought to be hard to win. It was suggested that you get what you want in life by working hard. The notion of spending time with family and friends was positively rated. This account strongly disagreed that money buys happiness.

Account B *Thrill seeking*

This account believed that scratchcards are exciting and that winning a lot of money would solve all a persons problems. It was suggested that parents and friends liked scratchcards and that people of any age should be allowed to play. There was disagreement that you get what you want in life by working hard. However, there was recognition that scratchcards are a type of gambling, and that it may be addictive. It was also expressed that scratchcards were a waste of money. Although luck was not seen as

the same as chance, this view believed in lucky streaks. A number of misperceptions about scratchcards were also evident. This account disbelieved that winning back the cost of the scratchcard was not really winning at all. It was suggested that if someone wins £50 on a scratchcard that they should then buy more scratchcards. Furthermore, it was suggested that when someone wins that they are less likely to win next time they play. Spending a lot of time alone was negatively rated.

Account C *Rationalist*

The key issues that defined this account was a belief that you get what you want in life by working hard rather than through luck. Scratchcards were recognised as a type of gambling that may also be addictive. The chances of winning any money on scratchcards were perceived as low, and it was expressed that you can only win scratchcards by chance. However, there was disagreement that scratchcards should be banned. Spending a lot of time with family and/or friends was seen as important, and money was not regarded as the most important thing in life. However, it was suggested that winning a lot of money could solve all a persons' problems. Scratchcards were not believed to be exciting and it was felt that scratchcards can make a person sad. There was disbelief that scratchcards can make someone happy even if they do not win. No misperceptions about scratchcard gambling were evident.

Account D *Libertarian*

This account defined scratchcards as a bona fide form of gambling that may also be addictive. It was reported that (in general) gambling was bad, although it was strongly

advocated that scratchcards should not be banned. Indeed it was suggested that people of any age should be allowed to buy scratchcards. Spending time with family and/or friends was seen as important, and it was believed that you get what you want in life by working hard. It was suggested that scratchcards can make you sad, and there was disbelief that scratchcards make people happy even when they do not win. No misperceptions relating to scratchcards and gambling were demonstrated.

DISCUSSION

On the whole, study two indicated that these young people perceive the National Lottery as a bona fide form of gambling. There was a general awareness of the negative effects of gambling (such as problem gambling), and a realisation that winning large sums of money was extremely unlikely to happen. This contrasts with some of the findings of study one. However, since that first report there have been numerous media articles about underage lottery gambling (in fact several were a direct response to study one). Therefore, media reports during this period may have helped define the lottery as gambling. In relation to young people, this may be a secondary affect, derived from parental influence. Study one indicated that many parents purchased lottery tickets for their children as part of a regular family activity. However, study two indicated that parents may now hold a more negative view of the lottery, and would presumably be less inclined to purchase tickets for their children. This supports the idea that peoples' behaviour is indeed influenced by their attitudes, and experiences, and that consequently attitudes are amenable to change (Ajzen, 1988). In terms of preventing under-aged gambling, this is a promising finding. However, misperceptions of the nature of gambling were still evident in most of the accounts identified. There appeared to be an

overall belief in luck with some accounts suggesting that (i) luck was the same as chance, (ii) that some numbers are luckier than others, and (iii) that some people have lucky streaks. There was also evidence of misperceptions of probability expressed by agreement with statements such as;

- “if someone wins one time they are less likely to win next time”
- “using the same numbers for each lottery draw means you are more likely to win”
- “buying more lottery tickets/scratchcards significantly increases your chance of winning the jackpot.”

Such misperceptions may prove significant at a later stage in the young person’s life when they are legitimately entitled to take part in such gambling activities. In this respect, Q-methodology may prove to be a useful tool in identifying and understanding the views of gamblers and non-gamblers alike. By identifying peoples’ views toward gambling activities we may be able to develop a greater understanding of what gambling means to them as individuals. Study two identified several distinct accounts relating to The National Lottery and scratchcards and helps provide a better understanding of how young people view these activities. If under aged gambling is to be deterred then any prevention program must be aware of the variety of attitudes that young people may hold towards these activities (e.g. *moral opposition*, *thrill seeking*, *libertarian*). Furthermore, the accounts identified also indicated a marked distinction between the two types of activities, so that prevention and treatment approaches would also need to be aware of the differentiation young people may draw between the two activities. For example the *thrill seeking* account of scratchcards would need to be challenged very differently from the *luck seeking* account of the lottery. These distinctions also highlight how scratchcards may be perceived as a harder more arousing form of gambling than the lottery. This type of insight would undoubtedly be

advantageous for developing prevention and treatment strategies that directly address erroneous views, and could be derived from the gamblers themselves. This could be done on a large scale through advertising and education campaigns, or on a more specific individual and/ or group basis.

One other aspect of this study that should be mentioned is the experience of the participants themselves. The process of Q-sorting is by no means a simple task and it required a great deal of thought and evaluation, although the young people in this study completed the task well. In this way, not only are the participants being asked to consider a wide range of issues, they are also forced to confront their own views on the matter and to evaluate the importance of these views to themselves. This means that Q-sorts ultimately make concrete the persons' thoughts on a subject and allow them to consider the validity of those views, both on their own and in relation to the other Q-statements. In this sense, a Q-sort can also be a learning and/or realisation process that may be rewarding in itself. However, the sorting process can also be an arduous one, and frequently participants reported their frustration at having to make decisions about which statements they agree and disagree with most, although this was usually resolved by the time the sort was completed. The process of making choices and evaluating personal views is further amplified by the use of the forced sort matrix. There is no firm necessity to use this type of matrix, and numerous other studies have utilised less rigid combinations. However, this type of configuration means that the participants must make strict evaluations of those factors that are most personally salient. In this way, a more focused and considered set of views may emerge than when participants are allowed to express multiple views of an equal rating, for example using Likert scales. It

is suggested that people, in general, will hold numerous moderate views, but far fewer extreme views.

Q-methodology provides a unique way of examining adolescent views in a way that holds few assumptions and, lets the participants themselves decide what are, and what are not, the issues important to them. In relation to the present study it has demonstrated that adolescent's views of the UK National Lottery and scratchcards may have changed over time, and that they now appear to be more realistic about the nature of these activities, and what their chances of winning actually are. However, it is evident that some adolescents still hold a number of gambling misperceptions. The challenge will be to take this information and use to it to develop prevention and/ or intervention strategies specifically aimed at redressing those misperceptions identified.

CHAPTER: 12

STUDY 3. Group interviews investigating adolescent perceptions of the National Lottery and scratchcards.

INTRODUCTION

Study three set out to examine in more detail the perceptions identified in study one.

Study three was also designed to discover how adolescent's views of the National Lottery and scratchcards were constructed, as identified in study two. The aim was to develop a coherent explanation for why adolescents start gambling on these activities, and those factors that maintain their gambling behaviour, particularly in relation to attitude formation. This was the first opportunity for the participants to speak for themselves and outline what they thought were the cogent issues. The interviews were semi-structured and used an interview guide (see appendix p225). However, participants were allowed to guide the conversation along any related areas that they also considered important.

Study three enabled a more in depth analysis of how adolescents perceived the National Lottery and scratchcards. It allowed the participants to express what they considered to be the most important features associated with these activities. These qualitative accounts were extremely enlightening and provided valuable information about the aspects of these activities that most appeal to adolescents. The interviews also gave an insight into the erroneous perceptions that some adolescents hold about gambling on the lottery and with scratchcards.

METHODOLOGY

Pilot study

The pilot study used in study two also served as a pilot for study three and allowed for an effective interview guide to be developed. However, access to a larger group of participants in this geographical area (Liverpool) was not obtainable. Limitations of resources also favoured a more localised sample. Consequently it was decided that the main study would take place in the East Midlands, where access had been secured in several schools. Analysis of the pilot transcripts, when compared to the main study, showed a high degree of similarity. This would seem to indicate that the themes and categories identified were fundamental to adolescents and gambling in general, and not a consequence of regional differences. The findings of the pilot study are summarised below.

- The participants reported that they play the lottery and scratch-cards to win money.
- The participants all played regularly on either the National Lottery or National lottery Instants scratch-cards. Playing appeared to be dependant on whether or not they had any money, but participants also suggested that they might buy more tickets as they got older. The reasoning for this was that as they get older they will have more money to spend.
- The amount of money spent on the National Lottery and Instants scratch-cards also appeared to be dependant on how much money the participants had. Some examples were given of how they would spend less money on other things such as sweets, and use money that was supposed to pay for their dinner. This is a

worrying aspect as they indicated that if they had more money such as a regular wage, that they would spend more on these activities. One participant gives an example of one of their parents spending more money than they can afford on the lottery. These adolescents are involved in a gambling activity that sometimes uses large proportions of their money, some of which is intended for other uses. They may also be exposed to parental role models who may also follow this pattern of behaviour.

- Participants generally played the National Lottery and to a slightly lesser extent scratchcards with their family and/ or friends.
- Some of the participants indicated that they occasionally bought their own lottery tickets and/ or scratchcards, illegally.
- Overall the possibility of winning was given as the most important reason for playing the lottery and scratchcards.
- The male participants indicated that they took part in other gambling activities, these being fruit-machine playing and betting on horse races. They reported that they got into horse racing through placing bets on horses for their fathers. Betting on horse racing is traditionally a male activity, and this is reflected in the statement of one of the girls who asserts that she has no idea how horse racing works.
- It was clear that the age limit for buying lottery tickets and scratch-cards was not a deterrent to the participants, and they noted how easy it was for them and their friends to buy them.
- Some of the participants acknowledged that they chased their losses on scratch-cards but not on the National Lottery. One girl indicated, that at one time, she

had been concerned about the amount of money she was spending on scratch-cards. All the participants seemed to be aware that scratch-cards might be addictive and one participant related his experience of working in a shop and observing someone winning fifty pounds on scratch-cards and then losing it all buying more scratch-cards. Part of the awareness of the potential addictiveness of scratch-cards seemed to have come from the soap opera 'Brookside'. All of the participants suggested that some people spend more money than they can afford on the lottery and scratchcards. One participant said that her mother spent too much money on scratchcards.

- All of the participants indicated that they believed in luck. They also believed in winning streaks on scratch-cards, which they termed a 'roll on'. Three of the participants suggested that some scratch-cards are easier to win than others.

Main study

The group interviews were arranged with the Personal and Social Education (PSE) teachers within each school. Experience from the study one had demonstrated that these teachers were more responsive to the aims of the research, and were more able to incorporate the subject matter into their teaching schedule. In fact the interviews themselves were used as a precursor to a class activity that was designed by the researcher to encourage the students to discuss and think about gambling issues (see appendix p226). Therefore, the research was not simply about extracting information it also informed the participants who took part. This approach emphasised to the PSE teachers the educational merit of the process, so the research became less of an intrusion.

Participants

Six separate interviews took place, with between six and seven participants in each group aged between eleven and fifteen years old. The total sample size was 39 (20 males, 19 females). It was important that the interviews were conducted in groups as this helped redress the power balance between researcher and participant. The participants felt more at ease in the company of their friends and were hopefully more forthcoming as a result. It is also important to bear in mind the ethics of such research, as little would be gained by placing the participants in an intimidating situation, particularly when one considers the relatively young age of the participants in relation to the researcher.

Materials

An interview guide was used to aid the interview process and to ensure that certain vital topic areas were covered (see appendix p225). However, participants were also allowed to deviate on to any related areas that they considered to be of interest. In this respect the interview guide had to be flexible and during the pilot stage had to be adapted several times. However, the guide was still able to address issues identified in the survey research such as perceptions of problem gambling and lottery gambling as a social activity. In this way the study helped provide a more detailed understanding of those issues initially identified.

Procedure

Initial beginnings of the interview were often quite cautious as it took a short while for the participants to get used to the researcher and to understand what was going on. Each interview began with an explanation of what the interviews were about and a guarantee that all information would be both anonymous and confidential. The participants gave permission for a tape recorder to be used, and this enabled a high level of verbal

information to be recorded for later analysis. Interviews were transcribed, initially, as verbatim as was possible given the restrictions of audibility and recording quality. One of the disadvantages of group interview is that several people can talk at once making it difficult to hear everything being said. It can also be difficult, at times, to determine who is saying what and so careful listening and re-listening is required to make sense of the interviews. Ideally a video camera would allow better coverage of who was saying what, and would also allow non-verbal communication to be observed. However, this was considered too intrusive for the study considering the vulnerable nature of the participants taking part. It would undoubtedly have inhibited the flow of the discussion, and would have compromised the participants' anonymity. Each interview lasted for between 20 and 35 minutes and participants were debriefed fully after each interview. The tape recordings were initially transcribed verbatim transcription followed by a more selective transcription (see appendix p228) This selective transcription focused on gambling, and related issues, and removed any irrelevant material.

Analysis

Analysis of the data was achieved through the principles of grounded theory (Glaser & Strauss, 1967) and consists of examining the transcripts of the interviews and allowing a series of recurring themes to emerge from the data. The transcripts are then re-read and the e themes are then developed into broader inclusive categories. Initially, basic themes began to emerge from the data and these were used to code the transcripts for further more detailed analysis. In light of the initial coding re-reading of the transcripts allowed for more focused coding whereby the most salient aspects of the interviews were defined and outlined in further detail as more specific themes under the heading of broader categories. This final analysis provides a detailed account of what the National

Lottery and scratchcards mean to the participants interviewed, and provides a more detailed insight into the motivations and beliefs identified in studies one and two. It also gives some insight into how these young people may have developed their attitudes about these activities.

RESULTS

Motivations to play

This category relates to the reason given for playing the lottery or scratchcards and was derived from four main themes relating to money, the fun and excitement of taking part and socialisation/ shared identity.

Money

The main reason given for playing both the lottery and scratchcards was to win, and obtain money. In this respect a distinction between the two types of activities was often drawn, in that the lottery was seen as providing the best chance of winning more money. Therefore, it seems that the participants were focusing more on the amount of money that could be won rather than the actual chance of winning it.

- **What do you like about the lottery?**
- You win loads of money on it
- You win dosh
- There's nothing good about the lottery except for the money.
- There's more money on the lottery because with scratchcards you only win a pound most of the time.
- You can win more on the lottery than scratchcards.
- **What do you like about scratchcards?**

- **Nothing cos you don't win as much as you do on the lottery**
- **What do you think is bad about scratchcards?**
- You don't win as much as you do on the lottery.
- On the lottery you can start on £10 and go upwards, but with scratchcards it's only £1 upwards. So really it's best to do the lottery
- You hardly win any money on scratchcards

However, there was also a small minority of participants who rejected the notion that winning a lot of money would be a positive thing. They even suggested that winning a lottery jackpot might ruin their lives.

- **Would it change your life (if you won the lottery)?**
- Yeah it would spoil it.
- Yeah cos you would have everything and you would just not like it.
- **So would you like to win then?**
- No,.....Well only a bit.
- Well you want to win for the money, but when you got it you would wonder what to do with it.

A few participants expressed that losing money on the lottery and scratchcards was precisely why they would not take part. They indicated that they believed that the chance of actually winning any money was not very likely.

- There aint no point doin it cos you aint never gonna win anything

Fun and excitement

Other reasons given for playing were the elements of fun and excitement inherent within the activities. In this respect a distinction was frequently drawn between the lottery and scratchcards. Excitement in relation to the lottery was derived through watching the televised draw, usually in conjunction with other family members. This event was

reported as a regular form of family entertainment by most of the participants. They also suggested that they watched the program because of the celebrities and 'pop bands' that appeared on them.

- **What do you like about the lottery?**
- It's exciting
- The fun of doing it
- The excitement and the fun
- When a couple of your numbers come up you get too excited.
- Yes my dad goes "we're going to win tonight" and he gets this feeling that he's going to win.
- Yeah you get a feeling that you're going to win.
- It's exciting as well that's what me dad reckons.
- Because your numbers might come up you get all excited.

Fantasy

The lottery was also considered by many participants to be exciting in terms of discussing with family and friends what to do if they won the jackpot. This type of excitement was less intense than the excitement of the actual lottery draw and frequently appeared to lead into a winning fantasy. The winning fantasy was a phenomenon that related almost exclusively to lottery playing. Furthermore, it became clear as the interviews progressed that much of the socialisation that took place in relation to the National Lottery revolved around the fantasy of winning e.g. discussing what they would buy, where they would go on holiday etc.

- You can spend your time thinking about what you would do if you won.
- Yeah, you could buy anything you want.
- When you're bored you can think about what you would buy if you won
Yeah, I would leave school and buy an island to live on

The Buzz

Scratchcards were also associated with excitement, but in a more instantaneous and physiological way. Participants frequently made reference to 'the buzz' of playing scratchcards. This 'buzz' was experienced individually and did not seem to contribute to a shared sense of excitement although some participants reported excitement at watching other people play scratchcards. Accordingly, scratchcards were described, by some adolescents, as a less social pursuit than the lottery

What do you like about scratchcards?

- The first time you think, oh well, it gives me a buzz when I do it, and afterwards you just don't think anything.
- You get a real buzz when you scratch the card and you're waiting to see if you've won

What do you think it feels like to play (scratchcards) ?

- Great, it's exciting.
- You get ever so excited.
- Even like if you're not doing them and your dad is you're still excited, cos if he wins it you can rob him. (laughs)
- Scratchcards are more exciting than the lottery because, you scratch off one bit and go "ah £10" and then another bit "ah £10" and then oh "£1"

Socialisation and shared identity

It was clear from all the interviews that lottery playing, and to a slightly lesser extent scratchcard playing, were frequently a social activity. Participation was often described as part of a pattern of regular family social life. There was indication that this shared excitement helped build a communal identity, a sense of shared experience and belonging to a family or peer group. There were differences between the two activities in relation to the type of socialisation that took place. The lottery tended to be played by the participants in conjunction with their families as a regular part of their weekly

entertainment. This usually involved the parent or guardian purchasing tickets for the family, either as a whole group or distributing tickets to individual family members. The family would then watch the lottery draw on the television, together.

- Yes my dad goes "we're going to win tonight" and he gets this feeling that he's going to win.
- My mum's won on her mates' one, she does it every week at home, me dads won.....twice, me grandma's won, she din't give me none.

Not all of the participants reported that their parents played the National Lottery or scratchcards with them. However, it was clear that most parents played either the lottery or scratchcards themselves, and the participants were aware of this.

- Do your parents/friends like the lottery/scratchcards?
- Yeah
- My mum does sometimes, but me aunty she buy them every day.
- **What scratchcards?**
- Yeah, then she'll buy a lottery on a Weds or Sat.
- What my mum does is if she buys a scratchcard and she wins £2 she'll go and buy two more with the £2, and then if she wins more she'll go and spend all that on another couple of scratchcards.
- My aunty she buys four scratchcards a week, and you know how you can have all different lines on the lottery ticket? She has six of them. So she spends £10 a week on them.
- **Does she win much?**
- She's won £150 once, and my cousin when he was sixteen he played it for the first time and he won £1700, but he spent it all.
- **Do your parents/friends like the lottery/scratchcards?**
- Yeah, my mum and my dad and my grandma play the lottery
- My whole family do
- My Mum and Dad both used to do it and my Dad had three lines and my mum had two lines, and my mum didn't work she gave up so she gave my Dad her lines and he has £5 worth now every Saturday, and now my Dad's won about forty fifty pounds on my Mum's numbers.
- My brother's done the normal lottery, he done it a work and got the bonus number and he won all three that night and he came out with someat like 80 odd pound, and that's just luck int it?
- And you know my uncle he has won three grand
- And your aunties granddad she won the jackpot

- My mum won the lottery, she won ten quid (laughs)
- I've got a friend who won on five numbers
- All my uncles numbers came up but he forgot to put it on (laughs)
- My mum's won on her mates' one, she does it every week at home, me dads won.....twice, me grandma's won, she din't give me non.
- Me dads' workplace won £400
- **What about scratchcards?**
- My mum won once, the highest number she's ever got up to is about twenty five pounds
- My mum wins a pound
- **Five pounds my mum won**
- My auntie nearly won fifty
- My mum and dad do it
- My mum does it at the Co-op, her friend does it and then my Auntie does it.

Scratchcard playing was frequently undertaken with peers rather than parents and sometimes appeared to be part of a peer group socialisation process. Some of the participants played scratchcards with their friends so as not to feel left out, to be part of the group and join in with the groups' activities.

- Because everyone around us plays them, so if you go into CoOp and all your mates are buying them, then you might feel left out, so you would buy one as well.

I play so as not to be left out

Control

This was another major category with themes that ran through all of the interviews. It was concerned with the degree to which the participants believed they had some influence or control over the gambling situation. This category was developed from several initial themes relating to various aspects of perceived control over the gambling situation.

Personal choice

Several participants noted that they thought it was important that they were able to pick their own numbers. This was frequently given as a reason why the lottery was preferred to scratchcards. Picking numbers that were personally salient such as birthdays, house numbers, lucky numbers etc. was a commonly employed tactic. Several participants stated that it was important to stick to the same numbers for every draw, as they suggested that, over time, this would yield a better chance of winning the jackpot.

- You can get to pick your numbers with the lottery.
- **Is that important then?**
- Yeah

- **Is there any skill to playing the lottery or scratchcards?**
- Sometimes there is on the lottery because you can pick numbers that mean something to you, birthdays and that, and sometimes they might come out. My birthdays come out twice already.

- **What's bad about scratchcards then?**
- You don't get to choose your own numbers.

- You've got to stick to the same numbers otherwise you're wasting your time. Some people stop or get different numbers and then their old numbers win. Like that bloke who forgot to get his ticket, and he would have won.

Luck

Some of the Participants were firm believers in luck, to which they attributed the likelihood of winning or losing. In this sense it was clear that these participants held the belief that to some extent they could control the gambling situation by using strategies that would maximise their luck potential, for example using lucky numbers.

There was a lot of confusion encountered during the interviews about the chances of actually winning, and this was often expressed in terms of chance and luck. However, luck was more frequently referred to than chance, and it frequently provided a rationale

for explaining winning and losing. Notions of luck were also related to ideas about fate, that some people were destined to win a jackpot.

- My lucky numbers 7
- Mines 3.
- **So has it been lucky for you then?**
- Not yet.
- **So why is it your lucky number then?**
- I just like the number
-
- **Is luck different from chance?**
- No
- No, but don't ask me why cos I haven't got a clue.
- I believe in bad luck, that's why you never win.
-
- **How is luck different from chance?**
- With luck you probably would win, but with chance it's like one in a billion or summat.
- You have to make your own luck.
- It's the luck really.
- With the lottery you can get lucky

Chance

Not all of the participants were convinced that luck was the reason for success or failure. Where participants believed that they had no control over the situation then they frequently referred to aspects of chance. Some of the participants seemed to be confused about what the difference was between luck and chance.

- people are buying them and buying them and they keep losing money, it's only one out of like 50 that you have a chance to win it.
- **Do you think the lottery is addictive as well?**
- No because you only win £10, yeah, and it's like a pound and you've got more chance of winning that back than you have on the scratchcards
- **So there's more chance of winning the lottery is there?**

- Yeah
- Yeah
- No, I don't think there is, on the scratchcards my mum's won loads
- You've got more chances of winning with scratchcards than you have on the lottery really.
- You've got more chance of winning the lottery.
- It's just coincidence, it's nothing to do with luck.
- **Do you believe in luck?**
- I don't because my dad he always gets me to touch the scratchcard but he's only ever won two pounds.
- **Is that luck then?**
- I don't think so but me dad does, I think well whether I touch it or not it's still the same scratchcard
- Chance is the word, not luck.

Awareness of social problems

Addiction and problem gambling

There was a high degree of awareness of the possibility that gambling could become problematic for some people particularly in relation to scratch cards, and this was a theme that was to occur during every interview. Usually, this related to someone that a participant knew or had heard about from a friend or relative. Sometimes this was a result of hearing a story in the news, either first hand or again from a friend or family member. Frequently participants referred to the soap opera *Brookside* that featured a story about a character who had developed a pattern of problem gambling with scratchcards.

- Because people get addicted to it and lose a lot of money. Some people like this woman who used to live on my road, and she had five kids and she used to take the child benefit money and buy lottery cards (scratchcards) instead of buying them stuff. The kids suffer then as well, the money she spent on scratchcards she could have spent on the kids.
- My sister's boyfriend got addicted to them (scratchcards)
- **Did he?**
- Yeah he lost all his money
- That woman spent thousands of pounds playing scratchcards and she couldn't stop buying em. Then she started nicking stuff to pay for em, so she got nicked for stealing.
- **Who was that then?**
- Some woman in the paper
- And there was that Rosie Banks in Brookside who couldn't stop buying em either

DISCUSSION AND CONCLUSIONS

The results of this study identify several important attitudinal dimensions that relate to adolescent gambling on the National Lottery and scratchcards. They demonstrate how perceptions of an activity can develop even without direct behavioural experience (e.g. watching parents and friends gambling). The study also draws distinctions between the two activities in terms of their structure and the way that they are actually played. These forms of gambling are primarily social in nature, although a distinction is identified between the two activities in terms of social interactions.

Initially it was very difficult to get the participants to talk about the National Lottery and scratchcards as separate activities. This is perhaps not surprising when you consider how these products are marketed. Both the National Lottery and National Lottery Instants (the most widely available type of scratchcard) are subsidiaries of the current lottery administrator Camelot. Both products come under the National Lottery product range, and both products are advertised on television. Furthermore, they are both sold in the same places (e.g. Post Offices, news agents etc.), often the products are next to each other and they both cost a minimum of one pound. Despite initial attempts to discuss the National Lottery and scratchcards separately the participants frequently discussed them

together or interchangeably. However, when the transcripts were analysed the differences between the two activities began to emerge, both in terms of their structural characteristics, and in the way that they were perceived and played.

The primary motivation for taking part in these activities was reported as the chance to win money. This appears to be a powerful incentive, at least in the initial decision to gamble. Here we begin to see some of the perceived differences between the two activities. The lottery is consistently viewed as 'a better bet' because of the amount of money that can potentially be won. It appears that many people focus on the size of the available jackpot rather than the actual chances of winning. This phenomenon can also be seen in the adult lottery playing population. Every time that there is a rollover draw sales increase by approximately 20% despite the fact that the odds of winning are still the same. This may be partly due to the publicity surrounding lottery winners, that can give the impression that winning is more frequent than it actually is. Participants may be relying on an availability heuristic (Wagenaar, 1988) as the information about winners is readily available, and easier to understand than trying to work out the probabilities involved. Information about winners is 'concrete' and makes sense in the context of people's lives. Information about probability is 'abstract' and bears little relation to everyday experience. Furthermore, the popular discussion about 'what to do if you win the lottery' also reinforces the fantasy of winning rather than considering the probability of winning.

The themes of fun and excitement also drew distinctions between the lottery and scratchcards in terms of their structural characteristics. The lottery provides its peak level of excitement at the time of the draw and this appears to be derived socially with

other family members or friends. The other fun and excitement elements relating to the lottery were reported as less intense and related to fantasies about winning jackpots. The structural characteristics of scratchcards appear to provide a more individual, short-lived and instantaneous 'buzz' than the lottery. This may be significant in terms of the development of patterns of problem gambling. In study one it was found that identical levels of adolescent problem gambling were evident on both the National Lottery and scratchcards. However, while the lottery may appeal to a sense of fantasy within the player scratchcards seem to provide a more vicarious experience. Whether or not these dimensions appeal to different types of problem gambler is not yet clear. It may be that it appeals to the same people but at different times.

The lottery and scratchcards were found to be primarily social activities that fulfill different social functions in the lives of adolescents. The lottery was reported as an activity that was undertaken mainly with family members. Typically parents tended to buy the lottery tickets and then the whole family would watch the live televised draw together. Scratchcards were less likely to be bought by parents, except in some cases, as an occasional treat. Scratchcards were reported as being played with peers or individually. Therefore, it seems clear that many adolescents gamble on the lottery and scratchcards as a form of social recreation. Findings in study one identified that those participants whose parents gambled on these activities were also more likely to gamble on them themselves, illegally. Social cognitive theory (Bandura, 1986) would seem to provide a plausible explanation for the development of this gambling behaviour. Young people are introduced to these gambling activities either through direct involvement with family and/ or friends, or through observing and then modeling their behaviour. It could be argued that gambling does not necessarily have to involve making a personal

purchase. If a family member or friend gives a lottery ticket or scratchcard to an adolescent, then that adolescent is still taking part in a gambling activity. This may be an area of concern in light of adolescent's increased susceptibility to develop problem gambling (Fisher, 1993; Griffiths, 1995a; Gupta & Derevensky, 1997). Furthermore, there is strong evidence to indicate that those who gamble in childhood are more likely to become problem gamblers as adults (Ide-Smith & Lea, 1988; Fisher, 1993; Winters, Stinchfield & Fulkerson, 1993; Griffiths, 1995a; Gupta & Derevensky, 1997). Public awareness of the potential risks of gambling, particularly in relation to children and adolescents, needs to be raised. Further research could investigate more effective way of achieving this goal.

Study one found that the majority of the participants did not perceive the lottery, and to a slightly lesser extent, scratchcards as a form of gambling. However, study three seems to indicate a greater awareness of the nature of these activities. This can be explained in two related ways. First of all it is important to consider that there is a time span of approximately one year between the study one and the study three. During this period there has been an overall increase in media depiction of problem gambling, particularly in relation to scratchcards. Part of this interest has come about by the publication of a number of prevalence reports outlining the degree of problem gambling on these activities (e.g. Fisher & Balding, 1997: 1998). Study one itself attracted considerable media attention at a national level and may also have contributed to this level of raised awareness. Secondly, the more flexible and in depth nature of the interviews allowed the participants more freedom to express their concerns about these activities. Once the interview was underway, and the participants became more confident and relaxed, they

began to talk about issues such as problem gambling. This highlights the importance of qualitative gambling research. Such studies can uncover details that may otherwise be obscured by the pre-operationalised concepts that are used in much of the quantitative gambling research.

Some indications of erroneous gambling were identified in this study. In particular, notions of control highlighted misperceptions of the nature of probability. The classic gambler's fallacy (Wagenaar, 1988) was expressed by many of the participants.

Participants who used the same numbers in each draw were often convinced that if their numbers did not appear in a draw that were then more likely to appear in subsequent draws. Such misunderstanding of probability might be addressed in school education programs by teaching the basics of probability in a concrete and easy to understand way.

Other erroneous gambling perceptions were a belief in luck and the salience of personally chosen numbers. Many participants expressed the importance of using 'lucky numbers' or numbers that had a personally significant meaning. This is consistent with the illusion of control heuristic (Tversky & Khaneman, 1974) often expressed by problem gamblers. These types of misunderstanding of probability and the superstitious beliefs identified are endemic of a general ignorance of what gambling is and how it works. Education programs are needed to address such issues so that adolescents can make informed choices about gambling. Such programs would need to be evaluated and further research is required to assess the effectiveness of changing adolescents' attitudes to gambling through education. However, when we consider the number of participants who had been informed about problem scratchcard gambling through the soap opera *Brookside* we can begin to see how effective the right kind of media can be at

influencing adolescent attitudes toward gambling. Perhaps adolescent problem gambling prevention and/ or education campaigns should consider the use of narrative or role playing as a means of effectively portraying a responsible gambling message.

A typology of adolescent social lottery/ and or scratchcard players

INTRODUCTION AND METHOD

It is clear from all of the research documented in this thesis that adolescents gamble for a variety of reasons and in a variety of ways. After studying the results of this research, patterns of adolescent gambling begin to emerge. There are also patterns in the types of problems that adolescents encounter while gambling on these activities. The different methods employed in this research examined adolescent National Lottery and scratchcard gambling from a variety of perspectives looking at frequency of play, problem gambling, attitudes and social representations. This has been achieved through a combination of quantitative and qualitative methods. The survey utilised in study one enabled the level of adolescent problem gambling to be identified and indicated aspects of these activities that maybe problematic. Factor analysis of the survey data identified three key factors relating to National Lottery play, and three factors related to scratchcard playing. These related to money, matters, negative consequences, coping strategies and conflict. Analysis of the attitudinal data showed a clear link between adolescent attitudes toward the National Lottery and scratchcards, and their subsequent gambling behaviour. That is, adolescents with positive attitudes toward these activities were most likely to actually take part. Whilst this quantitative data provided information about the frequencies of behaviour and associated factors, such as attitudes, it did not say much about why adolescents may take part or develop such positive attitudes. Subsequently study two used Q-sorts to examine adolescents' accounts of these activities. The elements underlying these accounts were then looked at in more detail in study three, through a series of semi-structured group interviews. This approach enabled a more detailed picture to emerge and it is now clear that adolescent gambling on the

National Lottery and scratchcards can be divided into several sub-types based on both reported behaviour and attitudes. These types are not strict categories, that is, not all adolescent lottery and scratchcard gamblers can be neatly placed into a single category. Some people will fall between the boundaries of each category, and others may move from one category to another over time. However, each type describes the primary and current orientation toward National Lottery and/ or scratchcard gambling of different groups of individuals. The following typology provides a useful way of conceptualising the different ways that adolescents gamble on these activities and their rationale for doing so. Both the National Lottery and (to a lesser extent) scratchcards are social acts and are rarely played in isolation. Therefore, the typology describes, primarily, social patterns of gambling. The actual mechanics of playing are only a small part of the overall gambling experience, compared to many other forms of gambling. For example, Fisher (1993b) describes several types of adolescent fruit machine gamblers, with her descriptions focusing on the differences in the actual 'action' of the playing. With the National Lottery and scratchcards the actual physical action of gambling is only a small part of the overall experience. For example, it only takes seconds to fill out a lottery ticket or scratch the covering from a scratchcard. What characterises these activities are the decision-making processes before the actual purchase e.g. what numbers to pick or what scratchcard to buy, and how many lottery tickets or scratchcards to buy. From that point onward the activities can be considered as a psychological, social and cultural phenomena e.g. waiting for the lottery draw, planning the next scratchcard purchase, watching the lottery draw (usually with family and/ or friends). It is these psychological, social and cultural factors that appear to dictate why, how and how frequently these activities are played. The following typology will focus on the different characteristics of players in terms of their reasons for playing, the type of social situation that their

playing occupies and other factors associated with their playing (e.g. playing to escape problems etc.). Finally, a separate typology is given for problem gamblers identified in the research as it is clear that these people have very different patterns of behaviour and attitudes from the social gamblers identified.

RESULTS

A typology of adolescent National Lottery players

Family Game Players

These people liked to spend a lot of time with their families and friends, and were likely to be a member of a social club (e.g., a youth club). They did not buy lottery tickets themselves but instead were bought tickets by family members, usually their parents, who usually played the lottery every week.

'Yes, my dad goes "we're going to win tonight" and he gets this feeling that he's going to win.'

They liked to watch the lottery television programs and this forms a significant part of their weekly family entertainment. They were equally likely to be male or female, but were more likely to be aged around 13-14 years old. They spent between one and five pounds per week on the National Lottery, and the most they reported ever spending on the National Lottery was also within this range. They generally thought that gambling was a bad idea, but also agreed that the lottery and scratchcards were a good idea. They do not, generally, show signs of problem gambling except that they occasionally chased

their losses. They thought that the National Lottery was more exciting than playing scratchcards. Occasionally they played on fruit-machines and arcade video games, but were more likely to play regularly (e.g. daily or weekly) on home computer games.

Peer Group Players

These lottery players were most characterised by their social game playing, but with peers rather than family members. Game playing provided a means of social group cohesion and identity.

'I play so as not to be left out'

These players were likely to be aged between 13-15 years old and either have their lottery ticket bought for them by an older friend, or buy it themselves. They were equally likely to be male or female. They typically spent between one and five pounds per week on the National Lottery. However, the most they had spent in one week was between sixteen and twenty pounds. They did not show any signs of problem gambling except that occasionally they chased their losses. They believed the National Lottery and scratchcards were a good idea. They were unsure whether or not gambling in general was a bad idea. They thought the lottery was more exciting than scratchcards. They occasionally played fruit-machines and video games, but regularly played home computer games.

Fantasy Players

These players existed as a sub-type of both family game players and peer group players but with the following additions. They played the lottery because they specifically enjoyed the fantasy of winning the jackpot. They were frequently pre-occupied with thoughts about the lottery.

'You can spend your time thinking about what you would do if you won'
They also played the lottery or thought about the lottery as a way of distracting themselves from problems in their lives. They were more likely to be male and aged between 13-14 years of age. These players had a firm belief in luck and usually used the same 'lucky' numbers for each draw. They tended to play the National Lottery every week. They were likely to buy their lottery tickets themselves. They frequently chased losses. They played arcade video games and fruit-machines only occasionally. However, they played home computer games on a daily basis. The lottery was reported as more exciting than scratchcards.

Loners

Whereas most lottery players played the lottery as a social activity, this group were very much the exception to the rule, as they liked to be on their own most of the time. Their parents did not usually play the lottery. However, it was their parents who tended to buy lottery tickets for them when they did. They played arcade video games and home computer games regularly (e.g. daily or weekly) and they played fruit-machines occasionally. They were aged between 13-15 years old, and were as likely to be male as female.

A typology of adolescent scratchcard players

Scratchcards players are in many ways very similar to National Lottery players. During study two the interviews made it clear that frequently adolescents do not draw clear distinctions between the two activities. The National Lottery and National Lottery scratchcards are both produced by Camelot and enjoy the same (or similar) degrees of advertising. However, scratchcards are not generally as popular as The National Lottery, both for adolescents and adults. During the interviews it became apparent that many adolescents had a more negative view of the possible effects of scratchcards i.e. problem gambling issues. This appeared to be due to a higher degree of publicity concerning the negative effects. Similarly, the level of parental involvement with scratchcards was reported as far lower than with the National Lottery. The following describes several types of scratchcard players identified by the research.

Family Game Players

These people liked to spend most of their time with their family or close friends. They were aged between eleven and fourteen years of age. There was a very strong link between these adolescent's playing scratchcards and their parents playing scratchcards. The more frequently that parent's played the more frequently their adolescent children also played. This group of players tended to have their tickets bought for them by parents or other family members and playing was either as part of a family social gathering, or scratchcards were given as 'treats' in the same way that sweets might be given. These players only tended to play a few times a month, rather than as a regular

activity. In this respect scratchcards are slightly different to the National Lottery, which tends to be played on a more regular, usually weekly, basis. The function of scratchcards within the family, for these players, was more about an occasional treat or reward rather than as a regular pattern of social play.

'I won on a scratchcard, my mum won thirty quid but she had to give half to me cos I had scratched it off'

Generally no more than one pound (e.g. one scratchcard) would be spent on any one occasion. The highest reported amount spent on scratchcards for this group varied between one and five pounds. They did not generally have any illusions about the chances of winning, as they suggested that they did not know if they would ever win or not. They believed that scratchcards were a good idea, although they suggested that gambling in general was a bad idea. They occasionally played on fruit-machines and arcade video games, and were likely to play home computer games on a daily basis.

Loners

This group was far more prominent in relation to scratchcards compared to the lottery loners outlined above and tended to be older (14-15 years of age) Their parents were slightly less likely to play scratchcards than the family players above, although most of their parents still played at least occasionally. They played slightly more frequently on average than the family players (approx once a fortnight) and tended to buy their scratchcards themselves illegally. They spent between one and two pounds per week on scratchcards, and the maximum they reported spending on scratchcards in a week was between one and five pounds. They were slightly more optimistic than the family players about winning a scratchcard jackpot and this seemed to be their primary

motivation to play. They scored high on some problem gambling items, particularly in relation to chasing losses, and playing scratchcards as a means of escape. However, generally this behaviour was not enough to warrant classification as a problem gambler. They firmly believed that scratchcards were a good idea, and they also expressed that gambling, in general, was a good idea. They played fruit-machines and arcade video games occasionally, and played home computer games daily.

Peer Group Players

This group was the smallest social scratchcard gambling type identified (i.e. not including problem gamblers). However, there was some cross over here, with loners occasionally playing with friends and vice versa. They liked to play scratchcards with their friends as a social activity.

'Because everyone around us plays them (scratchcards), so if you go into Co-Op and all your mates are buying them, then you might feel left out, so you would buy one as well.'

These players either bought their scratchcards themselves (illegally) or they had older friends (or older looking friends) buy them instead. They were predominantly male and aged between fourteen and fifteen years of age. They were likely to play on a daily basis and their families also played scratchcards but only occasionally. They generally spent around one or two pounds per week on scratchcards with a maximum reported daily spend of five pounds. They were not particularly over optimistic about the chances of winning a scratchcard jackpot. However, they were very likely to chase losses, more than any other type (except problem gamblers). They suggested that both scratchcards and the National Lottery were a good idea, although they were not sure if gambling in

general was a good idea or not. They played fruit-machines, arcade video games and home computer games on a daily basis.

Buzz Seekers

These types of players can be considered a sub-type that can exist within all of the other scratchcard types. However, they were more likely to be loners or problem gamblers. They played primarily for 'the action' rather than for social or monetary reasons, and referred to 'the buzz' of playing scratchcards.

'You get a real buzz when you scratch the card and you're waiting to see if you've won.'

'The first time you think, oh well, it gives me a buzz when I do it, and afterwards you just don't think anything.'

They tended to be in the age range of eleven to fifteen years of age, and were equally likely to be male or female. They preferred playing scratchcards to the National Lottery and reported that their parents played scratchcards occasionally. On average they bought scratchcards once or twice a week. Most of the time their parents bought them scratchcards, although they were also likely to have friends and other family members buy scratchcards for them. Sometimes they attempted to buy their own scratchcards and they frequently chased their losses on scratchcards. They spent between one and five pounds per week on scratchcards and the most they report spending in a day varied between five and ten pounds. They firmly believed that scratchcards were a good idea and preferred scratchcards to the National Lottery. However, they also believed that

gambling is generally a bad idea. They occasionally played on fruit-machines and arcade video games, and played home computer games frequently (either weekly or daily).

A typology of adolescent problem gamblers on either the National Lottery scratchcards or both the National Lottery and scratchcards

Problem Lottery Gamblers

These players scored at least four items on the DSM-IV-J (Fisher, 1993) problem gambling screen. They were most likely to be male and 14 years old, with parents who played the lottery every week. Most of their lottery tickets were bought by their parents. However, they were also likely to get them from other family members or friends, as well as buying them for themselves. Essentially, they bought as many tickets as they could using as many sources as they could (e.g., parents, siblings, friends etc.) They spent up to and, in some cases, in excess of twenty pounds per week on lottery tickets. They were generally far more optimistic about winning than the other types identified. They played fruit machines and arcade video games on a weekly or daily basis, and they played home computer games every day. They expressed that gambling in general was a good idea. They played the lottery, primarily, as a means of escape and were preoccupied with the fantasy of winning a lottery jackpot.

Problem Scratchcard Gamblers

These adolescents scored at least four items on the DSM-IV-J (Fisher, 1993) problem gambling screen. They tended to be male and aged between fourteen and fifteen years of age. Their parents also played scratchcards on a regular basis (i.e. on a weekly basis). They believed that gambling in general was a good idea. They played home computer games daily, and played arcade video games and fruit-machines either weekly or daily. They suggested that scratchcards were 'a good idea' and found scratchcards more exciting to play than the lottery. These people reported that they played scratchcards because of the 'buzz' that they get when playing. They played scratchcards every day and usually bought them for themselves, although sometimes friends and family also bought them scratchcards. They spent anything from five pounds upwards per week on scratchcards. They believed that one day they would win a scratchcard jackpot.

Double problem gamblers

These people were identified as problem gamblers on both the National Lottery and scratchcards, by scoring at least four items on the DSM-IV-J (Fisher, 1993) problem gambling screen for both The National Lottery and scratchcards. Their parents played scratchcards and the National Lottery every week. They were most likely to be male and aged fourteen years old and. They usually bought their own lottery tickets and scratchcards but also had them bought for them by family and friends. They generally spent between eleven and fifteen pounds per week on the lottery, and between six and fifteen pounds per week on scratchcards. They were not worried about the amount of money they spent on these activities. They believed that one day they will win a lottery or scratchcard jackpot. They found scratchcards to be more exciting than the lottery

although they suggested that the lottery was used as a means of escape and to occupy their thoughts. They played fruit-machines, arcade video games and home computer games on a daily basis. They firmly believed that gambling in general was a good idea.

DISCUSSION

The typology above outlines a variety of different reasons why adolescents may play the National Lottery and/ or scratchcards. It was clear that adolescents do not always draw a distinction between the two activities. The reason for this being that both activities are organised by the same company (currently Camelot) and are subject to the same National Lottery branding. In many ways the National Lottery and scratchcards are very similar, at least in terms of adolescent experiences of them. For example, by far the biggest group of players for both the National Lottery and scratchcards were the family players. Both activities were predominantly undertaken as a family social activity. However, it was the National Lottery that was the most popular family activity of the two. Scratchcards were played more as an occasional treat, whereas the lottery was consistently played as part of a regular schedule of family entertainment. Many of the adolescents interviewed were aware of problem gambling in relation to scratchcards. Presumably parents were also aware of the negative publicity surrounding scratchcards, and were therefore slightly more cautious in their purchases.

However, there are also major differences apparent in the way adolescents take part in these activities. Scratchcards were not played in such a 'social' way as the lottery. Family playing was the most frequently occurring type identified for both activities. The second most frequently occurring type for the lottery was *peer group playing* (another

form of social play). However the second most frequently occurring pattern of play for scratchcards was the *Loner* type (a non-social form of play). Therefore, it is apparent that the lottery is more of a social pursuit than scratchcards. This reflects the structural differences between the two activities. The lottery is about shared experience both during the draw and in the interim period where participants talk about what they would do if they won. Scratchcards, on the other hand, are a more instantaneous and personal experience i.e. only the person doing the 'scratching' can fully appreciate the 'experience' of playing.

Furthermore, it was apparent that many adolescents played the lottery as a means of escape and were preoccupied with the fantasy of winning. This is most clearly seen in the description of the '*lottery escape player*' type. Whereas, many adolescents reported playing scratchcards because of the 'thrill' or 'buzz' that they provided as outlined by the '*buzz seeker*' type, and this was predominantly a characteristic of scratchcard playing. This would seem to reflect the more physiological, individual and instantaneous 'hit' that scratchcards can provide. These differences reflect the major structural variations between lottery and scratchcard gambling.

Again, there were clear links between family and child participation on these activities with most adolescent players taking part in these activities with their families.

Furthermore, when the problem gambling types are examined it was clear that their parents were also frequent gamblers on these activities. This supports two main theories outlined in the other studies; social cognitive theory (SCT) (Bandura, 1986) and the theory of planned behaviour (TPB) (Ajzen, 1988). These theories have been a

reoccurring theme throughout this thesis and highlight the importance of social factors in adolescent gambling behaviour. This typology further reinforces SCT by again uncovering a strong link between adolescent and parental gambling on these activities i.e. if an adolescent has family or friends who gamble then they are also highly likely to gamble themselves. That is, they may model the gambling behaviour of certain 'significant others.' Furthermore, younger adolescents (e.g. 11-13 years of age) were more likely to be influenced by their parents, whereas older adolescents (e.g. 14-16 years of age) were more likely to be influenced by their peers.

The link between attitudes and behaviour was also supported in that parental and peer participation would strengthen the individual's positive subjective norms about the activities. Many adolescents are also likely to have a high degree of perceived behavioural control, in terms of being able to take part in these activities i.e. they know the behaviour is actually attainable, and often believe that they can win. All of the problem gambler types identified held a firm belief that they would one day win either a lottery or a scratchcard jackpot, or both. Furthermore, once they actually take part themselves and experience the 'thrill' or 'fantasy' elements of playing, or the social cohesion of taking part in such a social experience, they may also develop a positive personal belief about the activities, through direct behavioural experience.

One other element that is worth noting was the comorbidity between fruit-machine gambling, arcade video game playing and home computer game playing with lottery and/ or scratchcard playing. All of the problem gambler types identified played home computer games regularly, either on a daily or a weekly basis. However, with the

exception of the scratchcard '*buzz players*' it was only the problem gamblers who played fruit-machines and/or arcade video games on a regular (i.e. weekly) basis.

The typology described outlines the characteristics of several types of National Lottery and scratchcard players. Such social psychological explanations have implications for any program that wishes to prevent under-aged gambling, provide education and public awareness of these activities, or treat problem gamblers. It is clear that adolescents play these activities for many reasons. A primary reason often given for gambling is to try and win money. However, it seems that there are a variety of other motivations to take part, in this case, for a means of social inclusion, for a means of escape from problems, or for the 'thrill' or 'buzz' of the gambling action. The typology also highlights the important influence of family and peers on adolescent gambling behaviour.

Furthermore, it has been demonstrated how adolescents' attitudes may be influenced in favour of these gambling activities, which in turn may also influence actual gambling behaviour. Finally the typology draws important structural distinctions between lotteries and scratchcards. The National Lottery was frequently played for the fantasy experience it provides, and scratchcards were frequently played for the 'thrill' or 'buzz' that they deliver.

CONCLUSIONS

This thesis was an exploratory study of the UK National Lottery and scratchcards. There had previously been very little research conducted in this area and none that had examined the level of actual adolescent problem lottery gambling. In this sense the thesis has expanded our knowledge on the extent of the impact of these activities considerably.

It was clear before the research began that these activities were incredibly popular forms of gambling amongst the adult population. Research by Camelot (the current National Lottery Organiser) indicated that around 90% of the adult population had played the lottery at least once, and 65% played the lottery on a regular basis (Camelot, 1995). Moran (1995) reported that 61% of a sample of 187 school children had successfully purchased lottery tickets. It is now clear that large numbers of adolescents are also regularly taking part in these activities. The high figures of adolescent lottery participation identified in study one reflect the findings of similar studies in North America. Jacobs (1989) in a review of studies examining American high school youth gambling found that lotteries were consistently one of the most popular forms of commercial teenage gambling, as reported by 41% of participants from five surveys. Lotteries were second overall as the most favoured form of gambling, the first being non-commercial card playing with family and friends. Ladouceur and Mireault (1988) in a study of nine high schools in Quebec (n=1612 ninth to twelfth grade students) discovered that lotteries were the most favoured form of gambling undertaken by 60% of the students. This would seem to indicate that lotteries have a universal appeal to adolescents, at least in Western societies.

Social factors related to adolescent lottery and scratchcard participation

One of the most prominent reasons that adolescents gave for starting to play the National Lottery and/ or scratchcards was because their parents played. The most popular means of taking part in both the National Lottery and scratchcards was with parental consent. Parents either bought lottery tickets and scratchcards for their children or they bought lottery tickets and scratchcards for the family as a whole. For example, parents bought one or more tickets or scratchcards and either watched the lottery draw with the family or distributed the scratchcards to family members to scratch off. In this respect the National Lottery was far more likely to be participated in as a family event than scratchcard playing. This seemed to relate to the negative publicity given to scratchcards, which has been far greater than that afforded to the lottery itself. Part of this negative publicity has come from news items in newspapers and television reports. Other negative publicity was derived from the story line of a popular 'soap opera' *Brookside* that had a story about a woman developing problem gambling behaviour on scratchcards. These media influences were confirmed during study two where several participants made reference to these stories when talking about the negative aspects of scratchcards. By contrast the National Lottery draw receives much more positive publicity through the regular publication of lottery jackpot winners. There have also been a number of television programs following the fortunes of lottery winners since their wins. Furthermore, the National Lottery has its own dedicated television programs. These programs are broadcast on the BBC, an institution with world renowned integrity that is further supported by the celebrities who appear on the programs. During study three participants frequently made references to both publicised winners and celebrities, associated with lottery products.

These socialisation influences appear to be major factors contributing toward the development of positive attitudes towards these types of gambling. During study one the identification of positive attitudes towards these activities was also found to relate to actual gambling behaviour. One explanation for this finding might come from social cognitive theory (Bandura, 1986), adolescents who observe 'significant others' taking part in these activities might then, conceivably, model that behaviour. In this case significant others could be family members and, indeed, there was a significant correlation observed between parental and child playing on both of these activities. However, peers or even celebrities may also be effective models for this type of gambling behaviour. This appeal was confirmed during study three by positive references during the interviews to 'pop stars' appearing on lottery television programs (e.g., *Boyzone, The Spice Girls, 911*).

It could be argued that the general acceptance of the National Lottery and scratchcards by society may legitimise these activities. National Lottery products have been sanctioned by government, they are further endorsed through advertising, by the televised draws and the celebrities that appear on them (in relation to the lottery). Furthermore, the situational characteristics of both these products may add to their legitimacy. For example, both lottery tickets and scratchcards are sold in respectable outlets that are not usually associated with gambling (e.g. Post Offices, supermarkets, petrol stations).

The observation of significant others taking part in these activities could contribute toward the formation of positive attitudes about the National Lottery and scratchcards. Study one demonstrated how the theory of planned behaviour (Ajzen, 1988) could be used to predict which adolescents would play the lottery or scratchcards on the basis of their attitudes toward the activities. These attitudes consisted of a positive normative influence- the belief that others think it is an acceptable activity to perform. The individuals personal beliefs- the individual possessing positive feelings toward the activity, and finally, a high degree of perceived behavioural control- the individual believing that the behaviour was actually attainable, either in terms of being able to take part or in relation to actually winning something by participating. Study one demonstrated how each of these elements contributed toward the behavioural intention to perform actual gambling behaviour on these activities, and consequently the behaviour itself. That is, if adolescents feel that the behaviour is acceptable to the significant people in their lives. If they believe it is a worthwhile thing to do, either for personal gain or on the basis of moral reasoning (e.g., money going to charity), and they think they can actually take part and win then they are highly likely to perform the actual gambling behaviour.

Gender differences

Throughout this thesis it was apparent that the National Lottery and scratchcards had a broadly different meanings for male adolescents than they did for female adolescents. Although, overall prevalence rates were very similar for males and females but it appeared that males were far more optimistic about the chances of actually winning any large amounts of money. The small minority of problem gamblers identified in study one were also predominantly male. This is a common finding in the literature on problem gambling, that males experience, or at least report, more gambling problems compared to females (Lesieur & Klein, 1987; Ide-Smith & Lea, 1988; Griffiths, 1995a). Traditionally, gambling has been regarded as a typically male pursuit and many of the venues for gambling have been largely frequented by males (e.g., betting shops and race courses). However, the National Lottery and scratchcards appear to be promoted equally to both sexes and can be purchased in (usually) gender-neutral environments (e.g. Post Offices, supermarkets, petrol stations). Therefore, it would seem that gambling has a different meaning for males compared to females. This meaning may be derived from the observation of gender specific role models engaged in gambling behaviour, for example boys observing their fathers' gambling behaviour. Study one identified that males had more positive attitudes toward gambling in general compared to the females in the study. Again, this may be derived from males identifying more easily with male gambling role models. During study three several males talked about their fathers gambling habits and how they sometimes gambled with them or placed bets for them. Alternatively, males may receive more physiologically or psychologically rewarding feedback from gambling than females. Unfortunately, such measures are ethically difficult to achieve with a youth sample. It is perhaps worth noting at this point that all

the measures in this thesis relied upon self report measures and it is plausible (although no evidence for this was found) that males may over report and females under report the severity of their gambling behaviour. However, if this is true then it further supports the idea that gambling has a different meaning for males than it does for females.

Different types of adolescent gamblers

A major finding of this thesis was the discovery of different types of National Lottery and scratchcard gamblers. It became clear during study one that gambling on these activities was not a uniform experience for adolescents. Gambling on the National Lottery and scratchcards meant different things to different adolescents. More detailed qualitative analysis during studies two and three helped define these types of gamblers more clearly. The culmination of this analysis was the formation of a typology of National Lottery and scratchcard gamblers. The typology outlines common patterns of adolescent play on these activities and the factors that are associated with such patterns of play. The typology not only identifies types of social gamblers, it also highlights the patterns of problem gambling associated with these activities.

Adolescent Problem Gambling on the UK National Lottery and scratchcards

Study one was the first study in the UK to assess the extent of adolescent problem gambling on the National Lottery. The figure identified (6%) is consistent with the levels of problem gambling associated with other forms of adolescent gambling. For example, Fisher (1992) identified a 5.7% level of pathological gamblers on fruit machines. Griffiths (1995) in a review of the literature notes that a number of studies

have indicated adolescent pathological gambling levels of at least 5%. Study one also identified a (6%) level of adolescent problem scratchcard gambling. Studies in the UK, Canada and USA have revealed a general pathological gambling rate of five to six percent amongst the under 18 years of age group. This figure is twice that identified in the adult population (Fisher, 1993; Schaffer et al 1994; Griffiths, 1995a). Therefore, it seems apparent that young people may be more vulnerable to the negative effects of gambling than adults. It is also clear from this thesis that lottery and scratchcard gambling can be as problematic for adolescents as other forms of gambling that have been identified as particularly problematic, such as slot machines.

Structural features of lottery and scratchcard gambling that contribute toward problem gambling in adolescents

There appeared to be major differences between patterns of problem lottery gambling and scratchcard gambling. It was clear from the way that participants constructed accounts about these activities in study two and from speaking to adolescents in study three that these activities provide very different patterns of reinforcement. During study three several participants talked about either the escapism they associate with lottery playing or the 'buzz' they experienced from scratchcard playing. Some participants reported that they played the lottery in order to forget about other things in their lives. Furthermore, in study three many participants talked about the fantasy aspects of lottery playing such as daydreaming about what they would do if they won a lottery jackpot. Study three also identified that scratchcard playing was frequently associated with the 'buzz.' This was identified as a kind of instantaneous 'thrill' that participants received from scratching the card and obtaining the result. These findings were also supported by the typology that defined a particular pattern of excessive play on the National Lottery

as fundamentally associated with escapism. Similarly, the typology also identified a pattern of excessive scratchcard play that was associated with the 'buzz' elements of scratchcard playing. In this respect, the evidence would indeed seem to indicate that these are major structural differences between these two gambling activities.

Furthermore, these elements also appear to be those most associated with problem gambling on these activities.

However, more stringent quantitative measures of defining problem gambling may be required as basing a diagnosis of pathological gambling on just four affirmative answers, as is the case with the DSM-IV-J, may not be a rigorous enough measure. For example, there were high response levels to the question "Do you often find yourself thinking about the National Lottery/scratchcards at odd times of the day/and or planning the next time you will play"? and "After spending money on the National Lottery/scratchcards do you play again to try and win your money back (more than half the time)?" There are two points to be made here. Firstly, these questions appear to highlight significant aspects of lottery and scratchcard participation. In particular the lottery appears to appeal to adolescents' imaginations and occupy everyday thoughts, perhaps providing a means of escapism. The degree of escapism that the National Lottery can provide may have an equivalent affect to the high event frequency of scratchcards. Second, both the National Lottery and scratchcards seem to provoke high levels of chasing losses. Whilst this is significant in terms of the structural characteristics of these games, it poses questions about the validity of the DSM-IV-J addiction criteria. If two of the criteria are being answered by a large number of people they may not be a good discriminator between social and pathological gambling.

However, these aspects of problem gambling were also identified as particularly cogent to problem gambling during the studies two and three. In this respect it seems that escapism and the 'buzz' are major factors relating to problem gambling on the National lottery and scratchcards respectively.

Other factors that appeared to be associated with the acquisition of gambling behaviour were the desire to win large amounts of money. Many of the lottery and scratchcard playing participants believed that one day they would win a lottery or scratchcard jackpot. Winning money was a theme that emerged, both in all of the studies as a reason to begin playing both the lottery and scratchcards. However, money appeared to be more important in relation to lottery playing compared to scratchcard playing. This seemed to relate to the fantasy aspects identified with lottery playing (e.g. thinking about what you would buy with your jackpot winnings).

Prevention and Education Issues

It is always the case that it is better to prevent gambling problems in the first place than it is to try and 'cure' them after they have developed. This thesis has identified a number of areas that could be used to help inform an effective under-aged gambling prevention program, and/ or to encourage responsible gambling where legal. Much of this prevention relates to education. Adolescents and their parents need to be educated about the risks involved in gambling. This is an important aspect when we consider the high numbers of participants that were gambling on either the lottery or scratchcards with their parents or other family members. It is unlikely that these family members are aware of the

inherent risks involved in adolescent gambling, such as an increased likelihood of developing problem gambling in adulthood. It is also unlikely that they are aware of the much higher rates of problem gambling in adolescence compared to problem gambling rates in adulthood. Furthermore, it is suggested that many parents do not actually regard these activities as bon fide forms of gambling. The National Lottery and scratchcards appear very different to most forms of gambling, even though they share fundamental underlying features. Most parents do not knowingly involve their children in other forms of gambling (e.g. casino gambling or race track betting) because they are aware of the nature of these activities and the risks associated with them. Study one identified that almost half of the participants in the study did not appear to regard the National Lottery, and to a slightly lesser extent, scratchcards as bon fide forms of gambling either. This is particularly noteworthy considering that over three quarters of the participants in study one expressed that they thought gambling in general was a bad idea. There is very little about the National Lottery and scratchcards that actually indicate that they are forms of gambling. They are widely available in typically non gambling venues (e.g., Post Offices & supermarkets) They are sanctioned by government allowed to advertise on television, and the lottery has it's own bi-weekly television program, effectively endorsed by the celebrities and 'pop icons' that appear on it.

Other prevention and education issues that need to be considered in relation to these activities relate to adolescent perceptions of probability and the differences between luck and chance. All three studies identified some misperceptions relating to probability either in terms of winning a jackpot or the sequence of random events (e.g. consecutive

lottery draws). The studies also identified a high degree of confusion about the differences between luck and chance.

Consequently, there are a number of aspects that any effective prevention and education measure should consider in relation to the National Lottery and scratchcards:

- Print a warning on all lottery products indicating that they are forms of gambling and that caution should be exercised when participating. Furthermore, there should be a statement outlining that they are not suitable activities for minors.
- The minimum legal age for buying lottery tickets or scratchcards should be raised to 18-years of-age, in line with most other forms of gambling. Furthermore, it should be illegal to purchase lottery products for minors, in the same way that it is illegal to purchase alcohol for minors.
- Promote responsible advertising that acknowledges the reality of the products and warns the customer to exercise caution when buying. Such advertising should avoid using slogans that imply the player can not lose, or that playing is a good way to forget about problems such as *'Everyone's a winner'* or *'Forget it all for an instants'*.
- Televised advertisements should not be shown until after a 9pm watershed. Remove any elements from lottery television programs that may specifically appeal to youth e.g. 'pop' bands.
- Advertising could also be used to warn people of the potential for developing problem gambling and the vulnerability of youth for developing such problems. Throughout this thesis there were frequent examples of participants recalling

negative stories in the media about scratchcard playing. These negative stories appeared to reduce adolescents positive attitudes toward scratchcard gambling.

- Billboard advertising should be removed.
- Schools should teach about gambling as part of a curriculum. Gambling should be examined in the same way as drug taking and other social issues. Such a curriculum should incorporate the teaching of basic probability and examine how the gambling industry makes a profit. It should also explain that gambling is not an effective way to make money.
- Government should distance itself from the National Lottery and resist giving further concessions to the gambling industry that actively promote gambling or make access to gambling easier.
- Lottery products should not be sold in outlets that are likely to be frequented by children.
- Parents should be encouraged not to involve their children with these activities. In particular, lottery tickets and scratchcards should not be given to adolescents as treats or rewards. Furthermore parents should not play these activities in front of their children thereby avoiding any subsequent modelling of that behaviour.

Treatment Implications

Different types of gamblers

Perhaps the most important implication for the treatment of problem gambling on the National Lottery and scratchcards is the observation that adolescents gamble on these activities in different ways and for different reasons. Consequently, any treatment measure aimed at reducing this gambling behaviour needs to be 'tailored' to the individual and specific needs of each client. Furthermore, adolescent problem gambling

on the National Lottery appeared to be consistently related to escapism. That is, those participants were using lottery playing as a mean of escaping their problems. This would suggest that there were other underlying psychological or social problems that would also need addressing. In addition, adolescents could be taught to use more appropriate and effective coping strategies to replace the gambling behaviour. Scratchcards appeared to be related more to 'the buzz' a type of psychological and/ or physiological 'hit.' These findings would add support to the work of Milkman and Frosch (1977) who in reviewing various addictions, suggested that there may in fact be two types of addict, those who seek arousal and choose stimulants or stimulating activities, and those who seek relaxation and choose opiates or relaxing activities. In this way gambling may perform different roles for different people. Some people may gamble to relax and escape from their 'normal' life, others may gamble because they find it exciting and it provides stimulation. This may be related to notions of arousal and could mean that problem lottery gamblers are seeking to reduce arousal whereas problem scratchcard players are attempting to increase their arousal. This would support Brown's (1986) view that individuals seek an 'optimum level of arousal' and that gambling provides a means of altering that arousal level. Unfortunately, it was not deemed ethical for this thesis to test adolescents' arousal levels whilst gambling on the National Lottery or scratchcards. However, the data gathered about problem gamblers in this thesis would seem to indicate that gambling on these activities was indeed related to a need to either decrease arousal (lottery playing) or increase arousal (scratchcard playing). Clearly more research is needed to objectively study the physiological effects of gambling upon arousal levels.

Most of the gambling participants in this research gambled with either their family or their friends. However, problem gamblers were far more likely to gamble by themselves or with other gambling peers. Again this may reflect the use of gambling as a coping strategy in the absence of family or non-gambling friends as support. Any treatment measures for these types of problem gambling should be aware that the gambler also needs a social support network to replace the support provided by the gambling behaviour.

It was clear from reviewing the gambling literature that problem gamblers are more likely to have parents who gamble (Derevensky & Gupta, 1996; Gupta & Derevensky, 1997). Encouraging parents not to involve their children in these activities would certainly be beneficial. Furthermore, if parents are going to gamble themselves then they should make sure that they are not observed by their children whilst gambling. This would help reduce any legitimising and modelling effects that might otherwise occur.

Cognitive distortions

The problem gamblers identified in this study exhibited a number of cognitive distortions in relation to both lottery and scratchcard gambling. In particular, problem gamblers frequently reported chasing their losses on these activities. For many players there was evidence of the classic gambler's fallacy e.g. if a number had not been drawn for several draws they assumed it was more likely to be subsequently drawn.

Furthermore, the availability bias (Wagenaar, 1988) was evident during several of the interviews. It was far easier for participants to recall winning events compared to losing events and this sometimes led to a perception that winning occurred more frequently than it actually did.

The illusion of control (Langer, 1975) was frequently evident in that adolescents sometimes reported that they had lucky streaks or lucky numbers. The choice of lottery numbers and the choice of scratchcards was sometimes informed by such notions of luck, and led some adolescents to believe that they had a better chance of actually winning. Treatment measure aimed at addressing cognitive distortions should focus on challenging beliefs i control and luck in relation to these forms of gambling. Finally, it was clear from this thesis that many adolescents sometimes transform their losses into 'near wins.' This was particularly true of scratchcards that had two winning numbers and lottery number that were numerically close to the winning combination. These are all cognitive perceptions that can be confronted through cognitive interventions.

Limitations of this thesis and areas for further research

This thesis has focused primarily on the social factors that influence adolescent gambling on the National Lottery and scratchcards. It has also looked at what these activities mean to adolescents and how they construct ideas about these activities. It has examined adolescent attitudes to these activities, how these attitudes develop and how these attitudes affect actual gambling behaviour. Furthermore, it has identified several different types of adolescents gamblers on these activities. However, it should be noted that all of the methods used in this thesis relied on retrospective self report measures. It is possible that some of the participants were not always truthful in their reports of their behaviour, although there was no indication of this. It would be useful to actually observe adolescent behaviour on these activities. However, this is not practical as most gambling was performed with family and/or friends. Illegal purchases would be extremely difficult to identify and unethical to organise. Simulated gambling studies might be used to examine arousal aspects of gambling, although given the large jackpots

associated with these activities it is unlikely that such a study could achieve any degree of realism. Other criticisms of the thesis concern the relatively localised sample. With the exception of the pilot interview that was conducted in Liverpool, all the research was conducted in the East Midlands region of the UK. However, there is no reason to believe that the experiences of these adolescents would be any different from any other adolescents in the UK. The results of the pilot interview showed a high degree of similarity with the results of the main interviews in study three despite their differing geographical locations. Further research could examine adolescent gambling across various regions, assuming funding and access was available.

One area that might be particularly useful to follow up would be the psychological and physiological differences between male and female adolescents in relation to gambling behaviour. In particular, it would be useful to examine, in more detail, the arousal factors associated with National Lottery and scratchcard playing. However, designing a study that uses intrusive measures (e.g., for physiological arousal measurement) and that measures arousal whilst gambling (realistically) would be extremely difficult to achieve, both practically and ethically. However, it would be interesting to examine adolescents' perceptions of their own levels of arousal. It may be that some adolescent's perceptions of their physiological arousal level are inaccurate e.g. they may feel physiologically under aroused when in reality they are not.

Further longitudinal research is also needed to examine the long term effects of these activities on the lives of adolescents. There were high rates of adolescent pathological gambling identified in this study (and other gambling research) and it is not clear whether or not these gamblers will continue to be problem gamblers in adulthood.

Adolescence is a time of risk taking and experimentation and it may be that this explains the high level of problem gambling identified. However, the National Lottery and scratchcards are a, relatively, new phenomena in the UK. The high levels of problem gambling identified may actually represent a cohort effect. That is, the participants in this study are amongst the first in the UK that have taken part in such research. The levels of problem gambling identified could, conceivably, extend into adulthood. The study of youth gambling is still in its infancy and the expansion of the gambling industry worldwide may mean that this cohort effect holds true at an international level.

Technology will continue to provide new market opportunities for lottery and related gambling products. These forms of gambling may prove to be highly appealing to adolescents. The global growth of gambling coupled with the increased popularity of the internet and various digital technologies, has led the gambling industry to invest heavily in internet gambling. The scope for new and extended business in this area is potentially very large as more people gain access to this technology. As personal computers and television technology become more integrated (e.g., internet access being offered as part of cable television packages), "Web TV" will be cheaper and easier to use - particularly for people who are not familiar with computers. The lottery industries, in particular, are investing heavily in the internet gambling market. The high event frequency that can occur with internet lotteries means that these lotteries could be regarded as a harder form of gambling than the standard non-internet format. The potential worldwide market for such lotteries means that control and legislation in this domain will be difficult to achieve. It is difficult at this point in time to assess the impact of such forms of lottery gambling on youth. Further research is needed to

examine this rapidly expanding industry and the impact that internet lotteries will have on the prevalence and severity of youth gambling.

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This is a questionnaire about the National Lottery and scratch-cards. Please can you answer each question by drawing a ring around the answer or writing in the space provided.

All the answers that you give are confidential and only the researcher will see them. You do not need to write your name.

(1) How old are you ?

11 12 13 14 15 16

(2) Are you male or female ?

male female

(3) Do your parent/s play the National Lottery ?

never occasionally most weeks every week

(4) Do you play the National Lottery ?

never occasionally most weeks every week

(if your answer is 'never' then please go to question 24)

(5) Who buys your lottery ticket/s ?

you a parent other family member a friend

(6) How much do you usually spend a week on the National Lottery ?

£1 £2 to £5 £6 to £10 if more than £10
then how much ?.....

(7) What is the most you have ever spent on the National Lottery in one week ?

£1 £2 to £5 £6 to £10 if more than £10
then how much ?.....

(8) Do you think you will ever win a lot of money on the National Lottery ?

Yes No don't know

(9) How much do you think a lot of money is ?

.....

(10) Do you often find yourself thinking about the National Lottery at odd times of the day and/or planning the next time you will play ?

Yes No

(11) Do find you need to spend more and more money on playing the National Lottery ?

Yes No

(12) Do you become restless, tense, fed up or bad tempered when trying to cut down or stop playing the National Lottery ?

Yes No

(13) Do you play the National Lottery as a way of escaping from problems ?

Yes No

(14) After spending money on the National Lottery do you play again another week to try and win your money back? (more than half the time)

Yes No

(15) Do you lie to your family or friends to hide how much you play the National Lottery?

Yes No

(16) In the past year have you spent your school dinner money, or money for bus or train fares, on the National Lottery?

Yes No

(17) In the past year have you taken money from someone you live with, without their knowing to play the National Lottery?

Yes No

(18) In the past year have you stolen money from outside the family, or shoplifted to play the National Lottery?

Yes No

(19) Have you fallen out with members of your family, or close friends, because of playing the National Lottery?

Yes No

(20) In the past year have you missed school to play the National Lottery? (5 times or more)

Yes No

(21) In the past year have you gone to someone for help with a serious money worry caused by playing the National Lottery?

Yes No

(22) Do you spend less money on other things (for example clothes or music) so that you can play the National Lottery?

Yes No

(23) Are you worried about how much money you spend on the National Lottery?

Yes No

(24) Do your parent/s play on scratch-cards?

never occasionally most weeks every week

(25) Do you play on scratch-cards?

Yes No

(if your answer is 'No' then please go to question 45)

(26) How often do you play on scratch-cards?

once a month a few times once a week every day
or less a month a week

(27) Who buys the scratch-cards?

you a parent other family member a friend

(28) How much do you spend a week on scratch-cards ?

£1 £2 to £5 £6 to £10 if more than £10 then
how much ?.....

(29) What is the most you have ever spent on scratch-cards in a day ?

£1 £2 to £5 £6 to £10 if more than £10 then
how much?.....

(30) Do you think you will ever win a lot of money playing scratch-cards ?

Yes No Don't Know

(31) Do you often find yourself thinking about scratch-cards at odd times of the day and/or planning the next time you will play ?

Yes No

(32) Do find you need to spend more and more money on playing scratch-cards ?

Yes No

(33) Do you become restless, tense, fed up or bad tempered when trying to cut down or stop playing scratch-cards ?

Yes No

(34) Do you play scratch-cards as a way of escaping from problems ?

Yes No

(35) After spending money on scratch-cards do you play again another week to try and win your money back ? (more than half the time)

Yes No

(36) Do you lie to your family or friends to hide how much you play scratch-cards ?

Yes No

(37) In the past year have you spent your school dinner money, or money for bus or train fares, on scratch-cards ?

Yes No

(38) In the past year have you taken money from someone you live with, without their knowing to play scratch-cards ?

Yes No

(39) In the past year have you stolen money from outside the family, or shoplifted to play scratch-cards ?

Yes No

(40) Have you fallen out with members of your family, or close friends, because of playing scratch-cards ?

Yes No

(41) In the past year have you missed school to play scratch-cards ? (5 times or more)

Yes No

(42) In the past year have you gone to someone for help with a serious money worry caused by playing scratch-cards ?

Yes No

(43) Do you spend less money on other things (for example music or clothes) so that you can play scratch-cards ?

Yes No

(44) Are you worried about how much you spend on scratch-cards ?

Yes No

(45) Do you think that scratch-cards are a good idea ?

Yes No

(46) Do you think the National Lottery is a good idea ?

Yes No

(47) Which do you think is most exciting to play ?

the National Lottery scratch-cards don't know

(48) Do you ever play on fruit machines ?

Never occasionally once or twice a month once or twice a week daily

(49) Do you ever play on arcade video games ?

Never occasionally once or twice a month once or twice a week daily

(50) Do you ever play games on a home computer ?

Never occasionally once or twice a month once or twice a week daily

(51) If you play the National Lottery please tell us why below

.....
.....
.....

(52) If you play scratch-cards please tell us why below

.....
.....
.....

(53) Do you think gambling is good ?

Yes No

(54) What kind of job would you eventually like to do after you leave school/college ?

.....

(55) If you have any other ideas or comments about the National Lottery or scratch-cards then please write them below, or on the back of this paper.

.....
.....
.....

Thank you for doing this questionnaire.

All your answers are confidential, and only the researcher will see them.

DSM-IV-J (Fisher, 1993)

- 1) Do you often find yourself thinking about gambling activities at odd times of the day and/or planning the next time you will play?
Yes _____ No _____
- 2) Do you find you need to spend more and more money on gambling activities?
Yes _____ No _____
- 3) Do you become restless, tense, fed up, or bad tempered when trying to cut down or stop gambling?
Yes _____ No _____
- 4) Do you ever gamble as a way of escaping from problems?
Yes _____ No _____
- 5) After spending money on gambling activities do you play again another day to try and win your money back? (more than half the time)
Yes _____ No _____
- 6) Do you lie to your family or friends or hide how much you gamble?
Yes _____ No _____
- 7) In the past year, have you spent your school dinner money, or money for bus or train fares, on gambling activities?
Yes _____ No _____
- 8) In the past year, have you taken money from your parents or other family members (without their consent) in order to gamble?
Yes _____ No _____
- 9) In the past year, have you stolen money from outside the family, or shoplifted, to gamble?
Yes _____ No _____
- 9) Have you fallen out with members of your family, or close friends, because of your gambling behaviour?
Yes _____ No _____
- 11) In the past year, have you missed school (5 times or more) in order to gamble?
Yes _____ No _____
- 12) In the past year, have you have you gone to someone for help with a serious money worry caused by participation in gambling?
Yes _____ No _____

Rotated Factor Matrix (lottery)

Question number	Factor		
	Money Matters	<i>Negative Consequences</i>	<i>Coping Strategy</i>
Q6	.872*	.197	.244
Q7	.866*	.147	.257
Q5	.856*	4.620E-02	2.285E-02
Q4	.747*	.156	.168
Q8	.694*	-1.115E-02	4.582E-02
Q14	.465*	.133	.296
Q10	.398*	.131	.355
Q3	.285	3.045E-02	4.749E-02
Q23	.242	-6.096E-02	.237
Q20	7.822E-02	.802*	.108
Q18	8.310E-02	.783*	2.211E-02
Q19	.112	.681*	.213
Q21	4.773E-02	.662*	.152
Q16	8.310E-02	.527*	.237
Q17	9.278E-02	.485*	.257
Q22	.108	.448*	.414*
Q15	9.010E-02	.438*	.592*
Q13	.160	.191	.570*
Q11	.180	.228	.547*
Q12	.182	.243	.545*

* = significant factor loading

Extraction method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalisation.

Rotated Factor Matrix (scratchcards)

Question number	Factor		
	<i>Money & Social Factors</i>	<i>Negative Consequences</i>	<i>Family Conflict</i>
Q25	.942*	7.143E-02	4.132E-02
Q27	.890*	-1.128E-02	3.169E-02
Q29	.885*	.293	8.485E-02
Q28	.866*	.338*	.118
Q26	.835*	.215	.149
Q30	.780*	5.679E-03	1.245E-02
Q35	.455*	.357*	.100
Q24	.412*	.163	8.573E-02
Q33	.164	.714*	.187
Q41	.101	.700*	.192
Q40	.139	.677*	.323*
Q32	.243	.611*	.139
Q37	.146	.597*	.526*
Q42	6.331E-02	.584*	.100
Q39	8.939E-02	.577*	.349
Q31	.286	.485*	7.728E-02
Q43	.109	.482*	.168
Q34	.102	.474*	.374*
Q38	9.364E-02	.497*	.862*
Q36	.132	.435*	.685*

* = significant factor loading

Extraction method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalisation.

How the National Lottery accounts were constructed from model sorts according to factor loadings on each Q-statement

Q-Statements		Accounts			
		Moral Opposition	Luck Seeking	Rationalist	Uncertainty
1	The lottery is exciting	-3	+2	+2	+2
2	The lottery has nothing to do with luck	0	-5	-3	-4
3	It is wrong that lottery jackpots are so big	+2	-5	-+4	+3
4	Sometimes I have lucky streaks	-1	+5	-2	+3
5	It doesn't matter how you pick lottery numbers	0	-3	+4	-1
6	I like to watch the National Lottery Live tv programme	-3	+2	+2	+1
7	The lottery is addictive	+5	+1	+4	0
8	I will never play on the National Lottery	+3	-5	-1	-2
9	Playing the lottery is gambling	+6	+5	+6	+4
10	The lottery should be banned	+5	-5	-4	-4
11	The lottery is just a bit of fun	-3	+4	+2	+3
12	My parent/s like the lottery	-4	+2	+1	+2
13	The lottery is harmless	-5	+1	-3	-1
14	The government supports the lottery so it must be ok	-2	+2	-1	-1
15	I think gambling is bad	+2	-3	+1	-1
16	The chances of winning any money are low	+3	-2	+5	-1
17	I or my family will win the lottery jackpot one day	-5	+2	-5	+1
18	I like being on my own most of the time	+5	-3	-3	-4
19	I think I am a lucky person	+1	+2	0	+1
20	Most of my friends like the lottery	+2	+3	+1	+2
21	Luck is the same thing as chance	+4	0	-2	+3

22	If a number is drawn one week it is less likely to appear the next week	-5	+1	-4	+1
23	Most people I know think the lottery is good	+1	+2	+2	+2
24	It could be you?	-3	+5	+1	+3
25	There is a skill to winning the lottery	-5	-2	-4	-1
26	Winning a lot of money would solve all my problems	-4	+2	-1	+1
27	If you want to win the lottery you have to play in every draw	-3	+2	-4	+1
28	Using the same numbers each week means you are more likely to win	-5	+1	-4	+3
29	I like to spend a lot of time with my friends and/or family	+2	+5	+5	+4
30	To win the lottery you must have a system	-5	-1	-5	-1
31	You get what you want in life by working hard	+5	+4	+3	+1
32	Luck decides what you get out of life	-2	+4	-2	+1
33	The lottery can make you sad	+2	+2	+1	+2
34	Some numbers are luckier than others	-1	+4	-2	+3
35	The lottery makes people happy even if they don't win anything	-2	-1	-2	-2
36	Some people spend too much money on lottery tickets	+4	+4	+3	+2
37	I think people of any age should be allowed to play the lottery	-2	0	-2	+1
38	Winning is more important than playing	-1	+2	-1	-2
39	Buying more tickets means you are much more likely to win the jackpot	-2	+4	-4	-1
40	You can only win the lottery by chance	+2	+3	+5	0
41	If someone loses they should try again to win back their money	-2	+1	-3	+1
42	If a number is drawn one week it is less likely to be drawn again the week after	-5	+1	-5	0

43	The lottery adverts on tv are good	-2	+1	-1	-1
44	You can buy lottery tickets almost anywhere	+1	+3	+2	+3
45	Money is the most important thing in life	-5	-2	-4	-1
46	Money buys happiness	-5	+2	-4	+1
47	I think about the lottery a lot	-3	+1	-5	-1
48	It matters which shop a person buys their lottery ticket from	-5	-1	-3	0
49	If I wanted to play the lottery I wouldn't try to play, because I am not old enough	+2	-3	-1	-1

How the scratchcard accounts were constructed from model sorts according to factor loadings on each Q-statement

Q-Statements		Accounts			
		Scepticism	Thrill Seeking	Rationalist	Li bertarian
1	Scratchcards can make you sad	+2	+2	+4	+2
2	Scratchcards make people happy even if they don't win anything	-2	-1	-3	-3
3	Scratchcards are exciting	0	+5	-3	+2
4	Winning a lot of money would solve all my problems	-1	+5	+3	+1
5	The chances of winning <u>any</u> money on scratchcards is low	+4	-3	+1	+2
6	I will never play scratchcards	+1	-5	0	-2
7	If someone gets a winning scratchcard they should buy another one straight away	-3	+4	-3	-2
8	If someone wins on a scratchcard they are less likely to win next time they buy one	-5	+3	-4	-2
9	Scratchcards are sold almost everywhere	+4	+3	+3	+4
10	Scratchcards are a waste of money	+5	-2	+2	+1
11	Playing scratchcards is gambling	+6	+3	+5	+5
12	My parent/s like scratchcards	-3	+2	+1	-2
13	Scratchcards are just a bit of fun	-1	+3	+1	+3
14	Scratchcards are addictive	+4	+4	+4	+5
15	If someone loses they should try again to win back their money	-3	+2	-3	-3
16	Scratchcards are	-3	-2	-2	-2

	harmless				
17	I think gambling is bad	+1	-2	-1	+4
18	Luck is the same thing as chance	0	-3	-2	-3
19	I or my family will win a scratchcard jackpot one day	-3	-2	-3	-3
20	I like being on my own most of the time	-4	-4	-2	-2
21	The government supports scratchcards so they must be ok	-2	0	-1	0
22	Where a person buys scratchcards is important, as some places are luckier than others	-4	+2	-4	-2
23	I think I am a lucky person	+1	+2	0	+1
24	Scratchcards have nothing to do with luck	-4	-2	-1	+1
25	Most people I know think scratchcards are good	0	+4	+2	+1
26	Scratchcards are good value	-3	-1	-3	-2
27	There is a skill to winning scratchcards	-3	-2	-5	-4
28	My friends like scratchcards	+1	+4	+1	+2
29	If someone wins £1 they haven't really won anything at all	+2	-4	+2	+3
30	If I wanted to play scratchcards I wouldn't try to play, because I am not old enough	0	-3	-1	-1
31	I like to spend a lot of time with my friends and/or family	+4	+2	+5	+4
32	To win scratchcards you must have a system	-4	-3	-6	-4
33	You get what you want in life by working hard	+5	0	+5	+5
34	You get what you want in life mainly by luck	-2	+2	-3	-2
35	Scratchcards should be banned	-4	-2	-3	-5
36	Scratchcards have nothing to do with luck	-4	-3	-3	-2
37	Sometimes I have lucky streaks	+5	+1	+1	0
38	If a person wins £50 on	-2	+4	-5	-3

	a scratchcard they should buy more scratchcards				
39	I think people of any age should be allowed to play scratchcards	0	+4	-2	+5
40	Money buys happiness	-4	+3	-1	-3
41	Buying several scratchcards means you are much more likely to win the jackpot	-2	+1	-3	-3
42	If you want to win with scratchcards you must buy them every day	-2	-2	-3	-4
43	Scratchcards are hard to win	+3	-2	+2	+3
44	You can only win scratchcards by chance	+3	+2	+5	+4
45	Scratchcard adverts on tv are good	0	+1	-1	0
46	I think about scratchcards a lot	-5	-2	-5	-5
47	Money is the most important thing in life	-5	+3	-5	-3
48	Buying the same type of scratchcard each week means you are more likely to win	-3	-1	-3	-4
49	Some <u>types</u> of scratchcards are luckier than others	+2	+2	0	-2

Lottery Q-Sort Cards

The lottery is exciting 1.	The lottery has nothing to do with luck 2.	It is wrong that lottery jackpots are so big 3.	Sometimes I have lucky streaks 4.	It doesn't matter how you pick lottery numbers 5.	I like to watch the National Lottery Live tv programme 6.	The lottery is addictive 7.
Sometimes I have lucky streaks 8.	Playing the lottery is gambling 9.	The lottery should be banned 10.	The lottery is just a bit of fun 11.	My parent/s like the lottery 12.	The lottery is harmless 13.	The government supports the lottery so it must be ok 14.
I think gambling is bad 15.	The chances of winning <u>any</u> money are low 16.	I or my family will win the lottery jackpot one day 17.	I like being on my own most of the time 18.	I think I am a lucky person 19.	Most of my friends like the lottery 20.	Luck is the same thing as chance 21.
If a number is drawn one week it is less likely to appear the next week 22.	Most people I know think the lottery is good 23.	It could be you? 24.	There is a skill to winning the lottery 25.	Winning a lot of money would solve all my problems 26.	If you want to win the lottery you have to play in every draw 27.	Using the same numbers each week means you are more likely to win 28.
I like to spend a lot of time with my friends and/or family 29.	To win the lottery you must have a system 30.	You get what you want in life by working hard 31.	Luck decides what you get out of life 32.	I think the National Lottery Live tv programme is good 33.	Some numbers are luckier than others 34.	The lottery makes people happy even if they don't win anything 35.
Some people spend too much money on lottery tickets 36.	I think people of any age should be allowed to play the lottery 37.	Winning is more important than playing 38.	Buying more tickets means you are much more likely to win the jackpot 39.	You can only win the lottery by chance 40.	If someone loses they should try again to win back their money 41.	If a number is drawn one week it is less likely to be drawn again the week after 42.

<p>The lottery adverts on tv are good 43.</p>	<p>You can buy lottery tickets almost everywhere 44.</p>	<p>Money is the most important thing in life 45.</p>	<p>Money buys happiness 46.</p>	<p>I think about the lottery a lot 47.</p>	<p>It matters which shop a person buys their lottery ticket from 48.</p>	<p>If I wanted to play the lottery I wouldn't try to play, because I am not old enough 49.</p>
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Scratchcard Q-Sort Cards

Scratchcards are exciting 16.	Winning a lot of money would solve all my problems 17.	The chances of winning <u>any</u> money on scratchcards is low 18.	I will never play scratchcards 19.	If someone gets a winning scratchcard they should buy another one straight away 1.	If someone wins on a scratchcard they are less likely to win next time they buy one 11.	Scratchcards are sold almost everywhere 20.
Scratchcards are a waste of money 21.	Playing scratchcards is gambling 22.	My parent/s like scratchcards 23.	Scratchcards are just a bit of fun 24.	Scratchcards are addictive 2.	If someone loses they should try again to win back their money 12.	Scratchcards are harmless 3.
I think gambling is bad 26.	Luck is the same thing as chance 27.	I or my family will win a scratchcard jackpot one day 28.	I like being on my own most of the time 29.	The government supports scratchcards so they must be ok 4.	The place where a person buys their scratchcard is important as some places are luckier than others 13.	I think I am a lucky person 30.
Scratchcards have nothing to do with luck 31.	Most people I know think scratchcards are good 32.	Scratchcards are good value 34.	There is a skill to winning scratchcards 35.	My friends like scratchcards 5.	If someone wins £1 they haven't really won anything at all 14.	If I wanted to play scratchcards I wouldn't try to play, because I am not old enough 36.
I like to spend a lot of time with my friends and/or family 37.	To win scratchcards you must have a system 38.	You get what you want in life by working hard 39.	You get what you want in life mainly by luck 40.	Scratchcards should be banned 6.	Scratchcards have nothing to do with luck 15.	Sometimes I have lucky streaks 41.
If a person wins £50 on a scratchcard they should buy more scratchcards 42.	I think people of any age should be allowed to play scratchcards 43.	Money buys happiness 44.	Buying several scratchcards means you are much more likely to win the jackpot 45.	If you want to win with scratchcards you must buy them every day 7.		You can only win scratchcards by chance 46.

Scratchcard adverts on tv are good 47.	I think about scratchcards a lot 48.	Money is the most important thing in life 49.	Buying the same type of scratchcard each week means you are more likely to win 8.	Some <u>types</u> of scratchcards are luckier than others 9.		Scratchcards make people happy even if they don't win anything 10.
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What are your views on scratchcards?

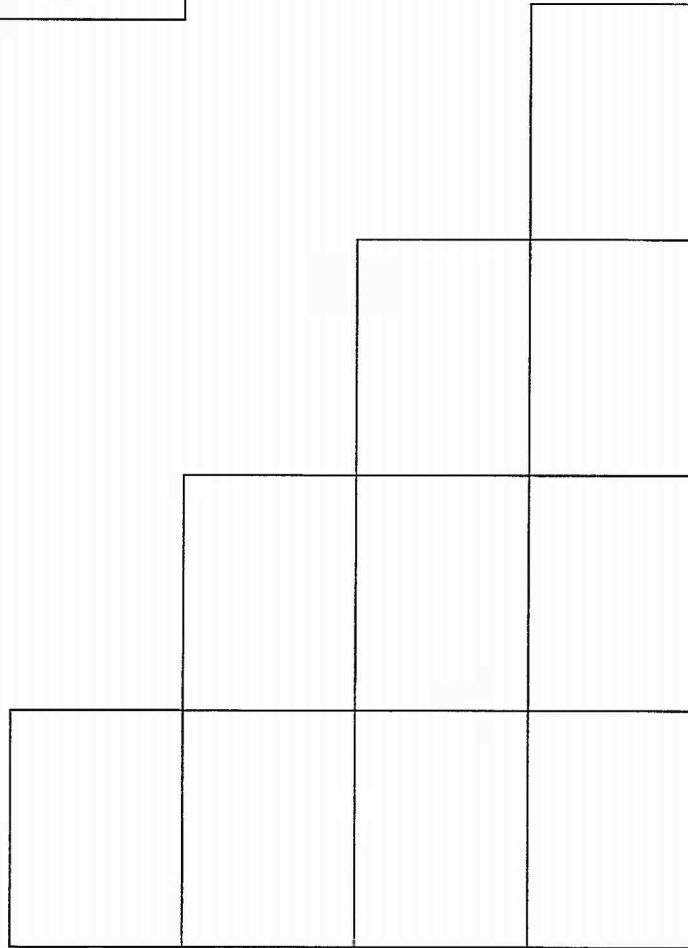
What is your age? _____

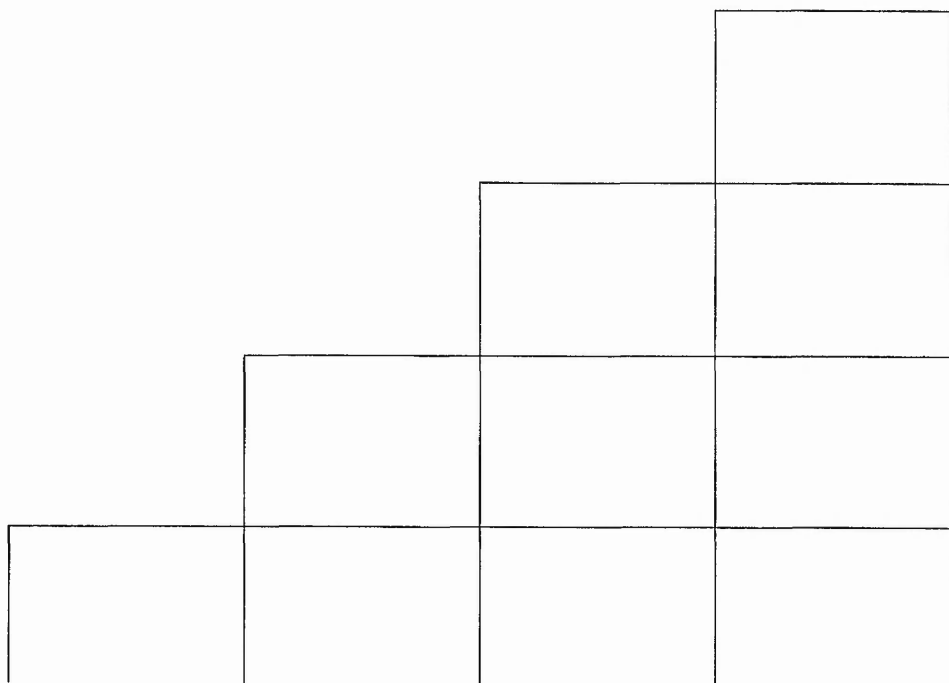
Are you male or female? _____

Instructions

Put all the cards on the grid, and rearrange them until you are happy with their order.

Next write down each card





INTERVIEW GUIDE

LOT S/CARD

- | | | |
|---|--------------------------|--------------------------|
| What do you like about the National Lottery/Scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| What don't you like about the National Lottery/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| Why do people play the lottery/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| Is the lottery/scratchcards gambling at all? | <input type="checkbox"/> | <input type="checkbox"/> |
| What do you think about gambling? | <input type="checkbox"/> | <input type="checkbox"/> |
| Do your parents/friends like the lottery/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| Will you ever win a lot of money on the lottery/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you know anyone who has won a lot of money? | <input type="checkbox"/> | <input type="checkbox"/> |
| What do you think about the age restrictions? | <input type="checkbox"/> | <input type="checkbox"/> |
| Do you believe in luck? | <input type="checkbox"/> | <input type="checkbox"/> |
| How is luck different from chance? | <input type="checkbox"/> | <input type="checkbox"/> |
| Is there any skill to the lottery/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| Have you heard of anyone spending too much? | <input type="checkbox"/> | <input type="checkbox"/> |
| What do you think about the Nat Lot Live programmes? | <input type="checkbox"/> | <input type="checkbox"/> |
| What do you think about lottery/scratchcard adverts? | <input type="checkbox"/> | <input type="checkbox"/> |
| Have you ever bought your own lottery tickets/scratchcards? | <input type="checkbox"/> | <input type="checkbox"/> |
| How does it feel when you play? | <input type="checkbox"/> | <input type="checkbox"/> |
| What would you do if you won the lottery? | <input type="checkbox"/> | <input type="checkbox"/> |

What is Gambling?

There are lots of definitions of gambling, however, they all have one thing in common. **Gambling = spending money to try and win more money.**

ACTIVITY 1.

Write down as many types of gambling as you can think of:

3

What are the Chances of Winning the national Lottery Jackpot?

The lottery numbers are picked randomly, so it's impossible to predict which numbers will be drawn, except by chance. The chances of winning the lottery jackpot with one ticket are one in 14 million, this means that there are 14 million possible number combinations that can be drawn.

Or to look at it another way what are the chances of not winning the lottery jackpot with one ticket? _____ **Answer** 99.999993%

with 100 tickets? _____ **Answer** 99.9993%

with 1000 tickets? _____ **Answer** 99.993%

Of course somebody usually wins the jackpot, and this is because there are around 20 million people who regularly play the lottery. However with every draw there are millions and millions of losers.

What are the Chances of Winning Any Lottery Prize?

The chances of winning any prize on the lottery (e.g. from £10) are 1 in 50. This means that on average out of every 50 times, a person plays, they will win once. This doesn't mean that they will always win once out of every 50 goes, sometimes they may win more than once, and sometimes not at all. However if we looked at how many times a person wins over a longer period it would average out at one in 50 goes.

What are the chances of winning a scratchcard jackpot?

The chances of winning a scratchcard jackpot vary depending on which card a person buys. The larger the jackpot the less chance there is of winning.

The largest jackpot is £50,000 and there is a one in 8 million chance of winning it with one scratchcard.

Or again the chances of not winning the jackpot with a scratchcard are 99.99998%

The chance of winning anything can be as high as 1 in 3. However most of these prizes are only £1. If someone wins a pound they haven't really won anything because the scratchcard cost them a pound anyway.

Usually scratchcards will have two large numbers the same. This means that the player sees these numbers and gets excited, because they think they have nearly won lots of money.

Which is more likely to happen?

It can be very difficult to work out how likely it is that something will happen. We often think good things are more likely to happen than bad things, but this isn't always true!

ACTIVITY 2.

Which of these things (below) is most likely to happen? write 1 by the most likely thing, then 2 by the next most likely, and so on.

- The weather forecast being correct _____
- Being killed by a falling object _____
- Winning £50,000 on a scratchcard _____
- Winning the lottery jackpot with one ticket _____
- Being struck and killed by lightening _____

Problem Gambling

Sometimes people can start to gamble too much and can become addicted to gambling, like a drug. Problem gambling can begin very quickly or may develop slowly. There are people around who understand these problems and who will try to help. If you develop a gambling problem in the future, or know someone who has, then GamCare may be able to help Phone 0845 6000 133 between 10am - 10pm. Calls charged at local rates, you don't have to give your name.

Selective Transcription from Study Three

INTERVIEW ONE

1. **What do you like about the National Lottery/Scratchcards?**
2. You win loads of money on it
3. Yeah
4. I don't like it, because I don't like the men who present it
5. He acts like he's gay
6. You can watch it when there's nothing else good on
7. There int enough pop groups on it
8. Yeah there int enough stuff for teenagers on it, like it's all for adults
9. And they should have kids on it presenting it an all
10. **What don't you like about the National Lottery/scratchcards?**
11. I don't like em cos I can't use em
12. It's not fair we're not old enough to do nufink
13. You have to pay a lot of money for em, not so much for scratchcards
14. Some people can get hooked on em
15. **Why do people play the lottery/scratchcards?**
16. They want to win the money
17. Gambling
18. It's just like the hos racing init
19. My dad won the lottery, someone got kicked out at work so he took his line.
20. **Has that changed your life a lot?**
21. No
22. **What do you think about gambling?**
23. It's good
24. No
25. I'm not really bothered
26. Especially when you win
27. But with scratchcards you can win at least two pounds and go oh isn't this exciting
28. You can win money on wally
29. **What's that?**
30. You throw coins against the wall and whoever is closest wins
31. **Do your parents/friends like the lottery/scratchcards?**
32. Well me mum does, me grandma does, me granddad does, me dad does
33. My family is in a syndicate thing with next door

34. Even if you win you can't go and claim, cos you have to have your parents with ya.
35. Yeah cos you have to be about 18 to play don't ya
36. My cousin started playing it but she's 16 and wants some money for the baby
- 37. Will you ever win a lot of money on the lottery/scratchcards?**
38. No
39. Some people will wait their whole life
40. Yeah, but some of my numbers have been dead close.
41. That don't mean anything
42. It does, cos one day they will all be spot on.
43. Sooner or later they are bound to come up.
- 44. What about scratchcards?**
45. You do win on those, but you don't like win a big massive amount of money on em.
46. Most of the time you do win even if it's only £2
- 47. What do you think about the age restrictions?**
48. It's too old
49. It should be any age
50. What about 13 or 14 years old? Because like then you're old enough, cos you're a teenager then innit.
51. Should bring it down a bit
- 52. Do you believe in luck?**
53. Yeah
54. I believe in bad luck, that's why you never win.
55. It's just whether you pick the right numbers
56. It's whether or not it's your lucky day that does it.
- 57. How is luck different from chance?**
58. With luck you probably would win, but with chance it's like one in a billion or summat
- 59. Is there any skill to the lottery/scratchcards?**
60. No not really
61. It depends what numbers you pick really
- 62. What about scratchcards?**
63. Yeah cos you've got to scratch it off
- 64. Is there any way to improve your chances?**
65. Yeah buy more
66. I'll bet you there is
67. You just lose more
68. Yeah but then you can gain more, you just don't know
69. Because say you play these scratchcard things and you're winning more than you spent on em
- 70. Have you heard of anyone spending too much?**
71. No

72. What do you think about the Nat Lot Live programmes?

- 73. It should be on earlier, it should have another presenter
- 74. Should take that off and put Noel's House Party back on
- 75. They should have Mr Blobby presenting it, cos he makes me laugh

76. What do you think about lottery/scratchcard adverts?

- 77. They're ridiculous
- 78. It's you
- 79. They make out it's easy and young people are going to get hooked on it thinking that it is. They have all this money and if they can't find money for certain things then where's all this money popping up from? They shouldn't be spending it on the lottery man, they should be buyin food with it.

80. Have you ever bought your own lottery tickets/scratchcards?

- 81. No
- 82. No
- 83. I tried

84. Did they say no then?

- 85. Yeah

86. How does it feel when you play?

- 87. My mum sits there rocking backwards and forwards
- 88. When my dad loses he rips it up and chucks it at the tv

89. Does he get mad with it then?

- 90. Yeah
- 91. Yeah but when my dad first found out he couldn't believe it, he got called in to work.....and then Central News came and they were interviewing him in the back garden..... AND THEY LIED don't believe anything they say on Central News. Do you know what they said? They said me dad was going to carry on celebrating, ok well he's still drinking every night, so there you go. He's not going to go on celebrating it's just stupid.

92. So are you more likely to play now?

- 93. No it's just stupid really, I mean I get things and that but it's still no the point, he's still boring, he's still his boring old self he's always bin, ask anyone. He just doesn't want to care.
- 94. Yeah

95. What would you do if you won the lottery?

- 96. Party
- 97. Go to a different world
- 98. I would just say everyone come to my house for a massive party
- 99. Take all me money and go to Benidorm
- 100. I would go somewhere really really nice like Barbados, go on a cruise go toand go clothes shopping in America.

101. What would you do?

102. I would just come back and give my brother a hundred and that's it no one else.

103. Yeah he would go and try to marry Pamela Anderson because he had won the lottery.

104. Anything else to say about the lottery?

105. What is the point cos you could stay in your job and earn as much as you would get on the lottery.

INTERVIEW TWO

1. What do you like about the National Lottery/Scratchcards?

2. Money

3. Money

4. Money

5. You get the chance you might win

6. What don't you like about the National Lottery/scratchcards?

7. Losing

8. There aint no point doin it cos you aint never gonna win anything

9. It's a pound a ticket

10. I suppose someone has to win though

11. Yeah but there far away and they usually have loads of money anyway

12. Why do people play the lottery/scratchcards?

13. I don't know

14. The fun of it

15. They need the money, but the money they spend on that, that they needed, is wasted

16. You can spend your time thinking about what you would do if you won the lottery.

17. Yeah, I would leave school and buy an island to live on.

18. Is the lottery/scratchcards gambling at all?

19. Yeah (everyone)

20. What do you think about gambling?

21. It's all right

22. You can do that a bit but not some of them cos some of them are a bit crap

23. I wouldn't do it because you might get too attached to it

24. Do your parents/friends like the lottery/scratchcards?

25. Yeah (everyone)

26. She does

27. Yeah

28. Yeah they have no problem

29. Will you ever win a lot of money on the lottery/scratchcards?

30. Yeah I probably will
31. A tenner here and there
32. I won £70 once
33. Maybe £50 here £55pound there
34. What about scratchcards?
35. No
36. Do you know anyone who has won a lot of money?
37. Yeah Clare that girl
38. My Uncle won £5000 or I think it was something like that
39. It's never anyone from Broxtowe or Nottingham
40. What do you think about the age restrictions?
41. Is it fair?
42. Yeah
43. No
44. Why don't you think it's fair
45. Because I can't buy one
46. Do you believe in luck?
47. No
48. Yeah I do, what about them psychic people
49. I do
50. My lucky numbers 7
51. Mines 3
52. So has it been lucky for you then?
53. Not yet
54. So why is it your lucky number then?
55. I just like the number
56. Is luck different from chance?
57. No
58. No, but don't ask me why cos I haven't got a clue
59. Is there any skill to the lottery
60. No
61. What about scratchcards?
62. I think those scratchcards are fixed
63. I don't
64. Well I do
65. Have you heard of anyone spending too much?
66. No
67. Dunno

68. What do you think about the Nat Lot Live programmes?
69. He does me head in he does
70. I'ts boring
71. What do you think about lottery/scratchcard adverts?
72. They're rubbing it in cos they know you'll never win
73. Have you ever bought your own lottery tickets/scratchcards?
74. No
75. No
76. Yeah
77. I've given someone else some money to be me one
78. Have you ever tried to buy one?
79. Yeah I have
80. Yeah
81. Did they refuse to sell them to you ?
82. No I bought them
83. Yeah I did
84. How does it feel when you play?
85. Boring
86. When a couple of your numbers come up you get too excited
87. I bet you scream the house down don't ya
88. Scratchcards are more exciting than the lottery because, you scratch off one bit and go ah £10 and then another bit ah £10 and then oh £2
89. What would you do if you won the lottery?
90. I would go yippe oo I ay and run off to Jamaica
91. Oh I wouldn't I would give a bit to charity, I'd buy a cottage
92. Would it change your life?
93. Yeah it would spoil it
94. Yeah cos you would have everything and you wouldn't know what to do with it
95. Yea you would have everything a,d you would just not like it
96. So would you like to win then?
97. No, well only a bit
98. Well you want to win for the money but when you got it you would wonder what to do with it

INTERVIEW THREE

1. What do you like about the National Lottery/
2. It's a bit of a waste of money if you don't
3. It's exciting
4. What about Scratchcards?
5. They're all right
6. I think it's good if you win
7. Why would it be good if you won?
8. You could buy lots of things. You could get more money back than what you put into it.
9. Yeah, you could buy anything you want.
- 10. What don't you like about the National Lottery/scratchcards?**
11. People can get addicted to em
12. Have you heard of people having problems then?
13. Yeah my mum, she's addicted to it (lottery), she's always buying them.
14. I think we should be able to buy them
15. Right because you have to be sixteen don't you
16. Yeah
17. Do you think there should be an age limit?
18. Thirteen
19. Because if you bought at thirteen then there wouldn't want to buy them all the time, so you may
as well waste your money when you're younger
20. But would you buy more when you are older?
21. Because you are younger you only a pound or summat like that on it, cos you haven't got a lot of money when
you're younger. But old people they spend loads on it, cos they've got money to spend.
22. If the age limit was lowered would you be more likely to play then?
23. Yeah
24. Yeah
25. Which would appeal to you most the lottery or scratchcards
26. The lottery because you can pick your own numbers
27. Right, do you think that's important then?
28. Yeah
29. Yeah
30. Yeah
31. But with a scratchcard my mum she wins mostly on scratchcards than she does on the lottery. It's an easier game
with a scratchcard.

32. Do you think you can win more generally on scratchcards?
33. Yeah, and you don't have to wait to see if you've won or not you can just scratch off. But if it's a lottery then you have to wait til night time to find out whether you've won.
34. Why do people play the lottery/scratchcards?
35. For the prize
36. The money
37. Is that true for both the lottery and scratchcards?
38. People buy the lottery more because they will watch it anyway to see who's on it, to see singers and stuff like that.
39. There's more money on the lottery because with scratchcards you win £1 most of the time
40. Yeah
41. Do any of you watch the lottery program?
42. Yeah
43. Yeah
44. Yeah sometimes
45. Is it any good?
46. It's all right
47. What do you like about it?
48. Singers
49. Right
50. They've had Elton John on it before, and the Spice Girls, Boyzone.
51. It's on twice a week now isn't it
52. Yeah
53. So which do you prefer?
54. It depends if it's a rollover or not
55. Is the lottery/scratchcards gambling at all?
56. Yeah
57. Yeah
58. Because if you buy one scratchcard and say you win, you'll go and buy another couple to see if you can win more
59. What do you think about gambling in general?
60. I think it's bad
61. Do you all think that?
62. Yeah
63. Yeah
64. Why do you think that?
65. Because people get addicted to it and lose a lot of money. Some people like this woman who used to live on my road, and she had five kids and she used to take the child benefit money and buy lottery cards instead of buying them stuff. The kids suffer then as well, the money she spent on scratchcards she could have spent on the kids.

66. Yeah so suppose you've got to be careful
67. Do your parents/friends like the lottery/scratchcards?
68. Yeah
69. My mum does sometimes, but me aunty she buy them every day.
70. What scratchcards?
71. Yeah, then she'll buy a lottery on a Weds or Sat.
72. What my mum does is if she buys a scratchcard and she wins £2 she'll go and buy two more with the £2, and then if she wins more she'll go and spend all that on another couple of scratchcards.
73. My aunty she buys four scratchcards a week, and you know how you can have all different lines on the lottery ticket? She has six of them. So she spends £10 a week on them.
74. Does she win much?
75. She's won £150 once, and my cousin when he was sixteen he played it for the first time and he won £1700, but he spent it all.
76. So when you are sixteen do you think you are likely to play either the lottery or scratchcards?
77. Yeah
78. Yeah
79. Will you ever win a lot of money on the lottery/scratchcards?
80. No
81. Not probably
82. So why would you play them then?
83. Because everyone around us plays them, so if you go into CoOp and all your mates are buying it, then you might feel left out, so you would buy one as well. Because they make it cheap so that people are gonna buy it, but if it's cheaper then people would buy more. But if it's more expensive then they wouldn't have enough money to buy loads.
84. Do you know anyone who has won a lot of money?
85. There's a girl in this school her mum won the lottery.
86. Cos they won loads didn't they?
87. Do you believe in luck?
88. No
89. I don't because my dad he always gets me to touch the scratchcard but he's only ever won £2. Is that luck then?
90. I don't think so but me dad does, I think well whether I touch it or not it's still the same scratchcard
91. How is luck different from chance?
92. No answer
93. Is there any skill to the lottery/scratchcards?

94. No
95. Sometimes there is on the lottery because you can pick numbers that mean something to you birthdays and that, and sometimes they might come out. My birthday's come out twice already
96. And one of you talked about them being addictive
97. Yeah
98. So have you heard of people spending too much?
99. No answer
100. You said about the adverts as well have you seen any of the lottery adverts?
101. Yeah
102. What do you think about those?
103. They're trying to get more people to buy lottery tickets. It's weird like because they say that smoking adverts encourage people to smoke, but lottery adverts may encourage people to play the lottery.
104. Usually you see them at bus stops and shops and stuff, posters.
105. Have you ever bought your own lottery tickets/scratchcards?
106. Iv'e given money to me mum to get them for me, scratchcards, but I didn't win anything.
107. Iv'e bought one for me mum before.
108. Me and my cousin picked some numbers for the lottery and she bought a ticket and she got five numbers.
109. How much did she get?
110. About £3000 something
111. How do you think it feels to play?
112. Exciting because you think you're going to win
113. Do you think there's any difference between the lottery and scratchcards?
114. No
115. Scratchcards have got something to do with the lottery as well haven't they?
116. Yes it's run by the same people
117. People buy more scratchcards than lottery tickets because you can buy them every day of the week. The lottery you can only play on Weds or Sat.

INTERVIEW FOUR

1. What do you like about the National Lottery?
2. The colour of the balls
3. It's only good if you win
4. What do you like about scratchcards?
5. Nothing cos you don't win as much as you do on the lottery
6. **What don't you like about the National Lottery/scratchcards?**
7. You lose
8. You haven't got a chance of winning
9. You haven't got a lot of chance of winning it
10. You've got more chance of winning the lottery
11. Scratchcards you only win a pound
12. But if you win a pound you're bound to go and get another one aren't you
13. Or pay for a lottery ticket
14. **Why do people play the lottery/scratchcards?**
15. Because they think they're going to win
16. They're natural born gamblers
17. Is that true? Do you think some people are like that
18. Yeah
19. Yeah
20. Do you think people play for the same reasons?
21. Some people are off the dole and they spend a pound , so they are skint all week
22. Is the lottery/scratchcards gambling at all?
23. Yeah
24. Yeah
25. Yeah
26. What do you think about gambling?
27. It's bad
28. Why do you think it's bad?
29. It costs you too much money at the end of the day
30. Do your parents/friends like the lottery/scratchcards?
31. Yeah, my mum and my dad and my grandma
32. My whole family do
33. Will you play it when you are older?
34. Yeah
35. Why would you want to play it?
36. It's like everyone else innit, cos you think your'e going to win

37. Will you ever win a lot of money on the lottery/scratchcards?
38. Yeah, cos I'm going to have a good job anyway, I won't need the lottery
39. What about scratchcards?
40. They're worse
41. Yeah
42. Do you know anyone who has won a lot of money?
43. No
44. No
45. What do you think about the age restrictions?
46. Why how old do you have to be?
47. Sixteen
48. Sixteen yeah
49. It should be fourteen
50. Why's that then?
51. Because it should be cheaper so people of our age can play, an t he money should be better spent on people of our age anyway.
52. More on individuals
53. They could have one for young people
54. All the money could go to more people
55. Do you think the jackpots are too big?
56. Yeah
57. So do you know of any younger people who try and buy lottery tickets or scratchcards?
58. What younger than they are supposed to be?
59. Yeah
60. Yeah
61. Yeah
62. Is it quite common then?
63. Yeah
64. Yeah it is because they like make people go in the shop for em a person who is older
65. Do you believe in luck?
66. Yeah
67. Yeah
68. How is luck different from chance?
69. Yeah
70. Yeah
71. What do you think the difference is?
72. No answer
73. Is there any skill to the lottery/scratchcards?

74. No
75. Yeah because you can pick your own numbers with the lottery
76. What do you think about the Nat Lot Live programmes?
77. I don't watch em
78. I do sometimes
79. It depends what songs come on
80. The even have Dale Winton doing it don't they?
81. He's gay (laughs)
82. It just encourages us and other people to do it

INTERVIEW FIVE

1. What do you like about the National Lottery/Scratchcards?
2. You win dosh
3. You win money
4. I think that them cards are addictive, people are just wasting money on them. People are buying them and buying them and they keep losing money, it's only out of like 50 that you have a chance to win it.
5. It's just like buying fags innit
6. Do you think the lottery is addictive as well?
7. No because you only win £10, yeah and it's like a pound and you've got more chance of winning that back than you have on the scratchcards
8. So there's more chance of wining the lottery is there?
9. Yeah
10. Yeah
11. No, I don't think there is on the scratchcards my mum's won loads
12. Yeah cos say your'e in a syndicate at work and then your bonus comes up
13. So what do you think the good things about them are?
14. You can win loads of money
15. Yeah
16. When your'e bored you can think about what you would buy if you won
17. You can wish that you will get the money cos you've got a chance, but you haven't got a chance really
18. And money can be given to charity
- 19. What don't you like about the National Lottery/scratchcards?**
20. Its not actually all bad it's good as well, it goes both ways really
21. You can win more on the lottery than scratchcards
22. On the lottery you can start on £10 and go upwards, but with scratchcards it's only £1 upwards. So really it's best to do the lottery
23. Why do people play the lottery/scratchcards?
24. Because they want to do it
25. They want the money
26. It's all about the money that's all people do it for the money, and for the fun of it
27. Yes my dad goes "we're going to win tonight" and he gets this feeling that he's going to win.
28. Yeah you get a feeling that you're going to win
29. It's exciting as well that's what me dad reckons
30. Because your numbers might come up you get all excited
31. Is the lottery/scratchcards gambling at all?
32. Yeah
33. Yeah

34. Yeah
35. I think it's better to do the lottery than the cards and than doing gambling on machines and stuff like that, cos you lose more money on the machines.
36. Yeah but machines are more fun
37. Yea but if it's like the 2p machines then it's completely different....
38. So why do people gamble on lot scards?
39. Because you lose more money than you get , I reckon. You could put like £10 on it, no you could put £20 on it and your'e only gonna win a tenner in the end anyway.
40. It's like on *Who Wants to be a Millionairre* and he 32 grand, he had no life line, and he has to just guess. And he still lose er still get 32 grand, gambles gets it right.
41. Yeah you could lose a lot of money like that
42. It's the luck really
43. Yeah but like if you buy three scratchcards and then you only win a pound, you've like lost 2 pound anyway
44. Yeah
45. What do you think about gambling?
46. It's not as worse as the lottery I don't think. If it's on fruit machines yeah, if it's like on the normal 2p..... machines it's not so bad. You don't get so addicted to it as well.
47. Yeah there's gambling for drugs and stuff like that as well
48. Gambling for drugs?
49. Yeah you can get them like, like you see on films gambling for drugs.
50. If they win the lottery they just spend it on something rubbish anyway.
51. No they don't
52. Do your parents/friends like the lottery/scratchcards?
53. My mum does the Irish lottery
54. My mum does it now and again but she's never won so she's gone off it really.
55. My mum's won on the Irish lottery, cos there's more chance of winning.
56. My mum and dad both used to do it and my dad had three lines and my mum had two lines, and my mum didn't work she gave up so she gave my dad his lines and he has £5 worth now every Saturday, and now my dad's won about forty fifty pounds on my mum's numbers.
57. It's like the money that you put on it, if you put five pound on the lottery you could spend that money completely better than just gambling it away. Yeah if you had children or something like that, or something that you need, you always need something.
58. Right so does everybody's parents play then?
59. Yeah
60. Yeah
61. Yeah
62. Yeah
63. Did you say yeas well?

64. Yeah
65. My mum only plays on Saturdays
66. My dad splits it with my mum
67. My mum don't play
68. Yes she does
69. She plays the Irish lottery
70. Will you ever win a lot of money on the lottery/scratchcards?
71. I have
72. Have you ?
73. My brother has he done the normal lottery, he done it a work and got the bonus number and he won all three that night and he came out with someat like 80 odd pound, and that's just luck int it?
74. And you know my uncle he has won three grand
75. And your aunties granddad she won the jackpot

76. Do you know anyone who has won a lot of money?
77. Yeah my grandma up the street down London he's won half a million
78. What do you think about the age restrictions?
79. I think that's good actually cos all the children just gonna gamble all their pocket money going straight on that and they not gonna
80. Iv'e had four goes on it, I got my mate down the road to get me them.
81. If you've got money to spare then I would do it if you haven't then I wouldn't do it.
82. Have any of you lot ever bought a lottery ticket or scratchcard?
83. I bought a scratchcard and won £10
84. I haven't bought them but this sharp just let anyone buy them
85. I bought a scratchcard and I won a pound
86. Do you believe in luck then?
87. No
88. It's just coincidence, it's nothing to do with luck
89. How is luck different from chance?
90. Chance is the word not luck
91. What about the lottery live programmes on Saturday and Wednesday do you ever watch that?
92. No
93. Is it when people have won the money and what they do with it?
94. On Wednesdays they just have like people singing and then they go straight on to it, but on Saturday ..I don't really watch it on Saturday.
95. They have like... I've only watched one of em.
96. On Saturday now they have this new thing if it's an even number they do one thing and if it's an even number they do another.

97. Like one week they was this Swansea mascot, and the swan if it was even numbers he stayed as the club mascot, but odd number he would have left the club, and it was even so he won, and this bloke had this Man U turf and it died so he supports Man u and it died and he came on the show and if because his dog peed on it so that's why it died (laughs) and the lowest ball what come out the machine er that's how many doggy treats the dog had because he had to do this maze and get to the turf and the bloke would get a new set of turf, and the lowest number was one, he got one doggy treat
98. But he gave him some more
99. Yeah
100. What do you think it feels like to play?
101. Great, it's exciting
102. You get ever so excited
103. Even like if you're not doing them (scratchcards) and your dad is you're still excited, cos if he wins it you rob him
104. Laughs
105. Anything else you want to say ?
106. My mum if she wins a pound on scratchcards she goes back and buys another one and then she loses it.
107. Yeah that's what my mum does as well, if she wins a pound she buys another one straight away.

INTERVIEW SIX

1. **What do you like about the National Lottery/Scratchcards?**

2. You get money out of it
3. To win money
4. Chances
5. The fun of doing it
6. The excitement
7. I don't know
8. Are the lottery and scratchcards the same kind of thing?
9. Yeah
10. Yeah
11. You can get to pick your numbers with the lottery
12. With the lottery you can get lucky
13. You've got to stick to the same numbers otherwise you're wasting your time. Some people stop or get different numbers and then their old numbers win. Like that bloke who forgot to get his ticket, and he would have won.
14. You've got more chances of winning with scratchcards than you have on the lottery really

15. **What don't you like about the National Lottery/scratchcards?**

16. You lose money
17. Losing money
18. You can get addicted to it
19. That woman spent thousands of pounds playing scratchcards and she couldn't stop buying em. Then she started nicking stuff to pay for em, so she got nicked for stealing.
20. Who was that then?
21. Some woman in the paper
22. And there was that Rosie Banks in Brookside who couldn't stop buying em either
23. What's bad about the lottery do you think?
24. Too many people doing it
25. You do too many numbers combinations to win it
26. What's bad about scratchcards?
27. You don't win as much money as you do on the lottery
28. You don't get to choose your own numbers
29. You get the stuff stuck under your nails for ages and it stains (laughs)
30. You hardly win any money on scratchcards
31. Why do people play the lottery/scratchcards?
32. To win
33. To see if they can get money and win
34. For the fun

35. The excitement and the fun
36. Do you think people think that they will win a lot of money?
37. Probably
38. Yeah
39. My sister's boyfriend got addicted to them
40. Did he
41. Yeah he lost all his money
42. My dad puts thirteen pound on a week, and my aunties won the lottery
43. My grandma's won the lottery
44. Yeah, what the jackpot
45. Most of it
46. My mum won the lottery, she won ten quid (laughs)
47. Iv'e got a friend who won on five numbers
48. All my uncles numbers came up but he forgot to put it on (laughs)
49. My mum's won on her mates' one, she does it every week at home, me dads won.....twice, me grandma's won, she din't give me none.
50. Me dads' workplace won £400
51. What about scratchcards?
52. My mum won once, the highest number she's ever got up to is about twenty five pounds
53. My mum wins a pound
54. Five pounds my mum won
55. My auntie nearly won fifty
56. Nearly?
57. Yeah she was going to get this scratchcard but she got a different one, then someone behind her came and bought that one she wanted and they won fifty pound
58. Is the lottery/scratchcards gambling at all?
59. Yeah
60. You can get addicted to that
61. You can lose more money than you earn
62. Yeah
63. I think the lotteries' more addictive
64. You think the lottery might be more addictive then?
65. Yeah
66. Yeah
67. Cos if you get three numbers you get three pound
68. What do you think about gambling?
69. Stupid
70. Yeah it's stupid

71. But then again some people will do it
72. Sometimes it's good
73. What do you think is good about it?
74. It's just for the fun isn't it?
75. Do your parents/friends like the lottery/scratchcards?
76. Yeah
77. Yeah
78. Yeah
79. Well my dad's stopping now, but he used to
80. My mum and dad do it
81. My mum does it at the Co-op, her friend does it and then my Auntie does it
82. My mum just does scratchcards
83. Do any of you ever play the lottery or scratchcards?
84. I used to when they first come out, the first day I won a tenner. Then I won nothing so I don't do it no more.
85. I won on a scratchcard, my mum won thirty quid but she had to give half to me cos I had scratched it off
(laughs)
86. So your parents sometimes buy scratchcards for you then?
87. Yeah
88. Yeah
89. Yeah
90. Have you ever tried buying them yourself?
91. I don't do scratchcards a lot
92. I wouldn't get served for anything (laughs)
93. You wouldn't get served fordo you know what I mean? (laughs)

94. What are the chances of winning a lot of money do you think?
95. Not much
96. One out of a hundred
97. One out of millions more like
98. Yeah
99. Do you think you will ever win?
- 100.No
- 101.Yeah
- 102.When you're sixteen do you think you will play?
- 103.No
- 104.Yeah
- 105.Yeah
- 106.No probably just do scratchcards

107. When I'm sixteen I still won't be able to get served (laughs)
108. So why scratchcards then?
109. I'm thinking about it, cos it's more chance of winning a scratchcard than on the lottery
110. Not necessarily
111. Yeah but you mostly only win a pound on scratchcards
112. Yeah but then you get your money back
113. You get your money straight away you don't have to wait for like long
114. Do you believe in luck?
115. No
116. Yeah
117.was underaged but they played it and he won and he lost the ticket
118. Yeah but they work at the shop
119. It's sad innit?
120. You have to make your own luck
121. Is there any skill to the lottery/scratchcards?
122. No
123. All you have to do is choose numbers
124. Have you heard of anyone spending too much?
125. Yeah our next door neighbours.....
126. He robbed the phone money.....
127. My sisters boyfried he spent half the house money , they was buying a house together, they were saving up and they had three thousand and he spent half of it.
128. What on scratchcards ?
129. Yea and the lottery, he used to buy about sixty scratchcards a day
130. What do you think about the Nat Lot Live programmes?
131. Boring
132. It's boring it makes me fall asleep
133. Yeah
134. Never watch it
135. Saturday's is too long and Wednesday's is too short
136. Yeah but they're both boring anyway
137. The short one's better
138. I watched it once and fell asleep
139. Is there anything good about it?
140. At one time they used to have like games
141. There's nothing good about the lottery except for the money
142. Yeah
143. It's good when the balls fall down (makes noises and everyone laughs)

144. It's all gay music so there you go
145. What?
146. Gay music
147. They should have footballers on there like Michael Owen, to show his football skills and show his legs off, and more people would watch it then wouldn't they?
148.
149. What do you think about lottery/scratchcard adverts, have you seen any of those?
150. Yeah
151. Yeah
152. They're bad
153. It's you
154. They just go it's you and that's about it
155. They've just changed so it's now maybe just maybe
156. I don't know
157. Next it will be it's not you (laughs)
158. How does it feel when you play?
159. I'm not bothered
160. I don't know
161. I think like when you're first numbers came out you were really excited the it stops
162. Yeah
163.
164.
165. It's just like crap
166. Yeah
167. You sit in front of the telly till your numbers come out and then note else comes out
168. The first time you think oh well it gives me a buzz when I do it, and afterwards you just don't think anything.
169. Are scratchcards more exciting?
170. Not really
171. No
172. Except that with scratchcards you actually have to do something
173. The lottery is more exciting
174. Yeah because you don't know what balls are going to come out
175. I don't watch it I just wait for it to come up on the news I do
176. Me dad.....the living room and he broke it
177. He broke the table?
178. Yeah cos he was going like this on the table (bangs table with fist) and it smashed
179. He was hitting it?
180. Yeah

181. What would you do if you won the lottery?
182. Buy an house, a car and then have a baby
183. Spend it on sweets
184. I don't know
185. Computer software
186.
187. I'd buy an island in Miami
188. I'd buy a Porche with it
189. I'd just save it
190. Yeah that's what I would do
191. I'd save it til I was older and I knew really what I wanted to do with it
192. Yeah cos some people just go stupid with it
193. Like me (laughs)
194. Buy a football team
195. I think they should put the age down to fifteen
196. I think they should put it up to eighteen so that you've got a job and can afford to play it.

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