

The Relationship between Participation in Number Lotteries

Final Report

and Gambling Addiction

Summary

in the Netherlands

and Findings



The Relationship between Participation in Number Lotteries and Gambling Addiction in the Netherlands

Final Report

Summary

and Findings

IVO (Addiction Research Institute)

Heemraadssingel 194
3021 DM Rotterdam
www.ivo.nl
secretariaat@ivo.nl

Dr. Gert-Jan Meerkkerk
Drs. Bianca de Ruiter
Drs. Mijke van Vliet
Drs. Agnes van der Poel
Prof.Dr. Dike van de Mheen

CVO (Addiction Research Centre)

Keulsekade 22
3531 JX Utrecht
www.drugresearch.nl
cvo-info@drugresearch.nl

Drs. Dick de Bruin
Drs. Minke Dijkstra
Drs. Richard Braam

July 2008

Preface

This report presents the summary and findings of the study into the relationship between the four large number lotteries in the Netherlands - namely the *Nederlandse Staatsloterij* (Dutch State Lottery), the *Nationale Postcode Loterij* (National Postal Code Lottery), the *BankGiro Loterij* (BankGiro Lottery) and the *Sponsor Bingo Loterij* (Sponsor Bingo Lottery) - and gambling addiction. The main question of the study is:

What is the relationship between participation in these number lotteries¹ and the onset or persistence of gambling addiction?

In addition to this main question, various subsidiary questions are also discussed:

- What is the relationship between participating in number lotteries and participating in other games of chance?
- What is the influence of the various characteristics of number lotteries on the potential risk of gambling addiction?
- Which group of participants in number lotteries runs the risk of gambling addiction?
- What is the motivation for participating in number lotteries?

In order to answer these study questions, five different subsidiary studies were carried out:

- a literature study;
- a qualitative study among former and current gambling addicts and authoritative sources (i.e. people with professional knowledge or experience with lotteries and gambling addiction);
- a survey among participants in number lotteries;
- a quantitative study involving secondary analyses of the data of the earlier population screening conducted by De Bruin et al (2006); and
- a quantitative survey among a representative sample of the Dutch population.

This report contains the summary and findings of the results of the independent subsidiary studies. The full reports of the various subsidiary studies are available in PDF format from IVO (the Addiction Research Institute Rotterdam), CVO (the Addiction Research Centre), the Dutch State Lottery, the National Postal Code Lottery, the BankGiro Lottery and the Sponsor Bingo Lottery.

The study is financed by the National Postal Code Lottery and the Dutch State Lottery.

¹ In this context, number lotteries are a game of chance in which participants buy tickets, either individually or via a subscription system, and have a chance by means of what is generally a monthly draw (in addition to the monthly draw, an extra draw is organised once or twice a year) of winning a sum of money. Several number lotteries also award daily and weekly prizes, at which time winners of the monthly draw are announced. In order to distinguish this game of chance from other forms of lotteries such as the lotto game and the instant lottery, this report expressly refers to number lotteries.

General Findings

The main question of the study focuses on the relationship between participation in number lotteries and the onset or persistence of gambling problems. None of the five subsidiary studies could demonstrate a relationship between participation in the investigated number lotteries and gambling addiction. From this it is concluded that - under the current conditions as set forth in the Dutch Betting and Gaming Act and as implemented in Dutch gambling policy - the four investigated number lotteries do not contribute towards the onset and persistence of gambling problems.

Nobody to whom the term 'lottery addiction' could apply could be found in any of the five subsidiary studies. The game in its current form - typically a game of chance with long odds² and a low event frequency³ - is not suited to continued play in lengthy sessions within a dedicated gaming environment in which the player compulsively tries to make up for earlier losses by betting even more money ('chasing'). In this regard, number lotteries do not have any of the most important characteristics of risky games of chance.

It can be shown that there is no causal nexus between participation in number lotteries and the onset or persistence of gambling addiction. However, this relationship can be demonstrated for other riskier games of chance such as slot machines. Although people with gambling problems do participate in number lotteries, participation in these games of chance does not represent a major part of the gambling problem, neither with regard to its onset nor persistence.

Lastly, number lotteries are also not a stepping stone for other, riskier forms of gambling. In most cases, people start out with other games of chance and then subsequently, as they get older, also participate in number lotteries.

² The terms 'long odds' and 'short odds' refer, among other things, to the time that elapses between making a wager and the outcome thereof in a game of chance.

³ The term 'event frequency' relates to how often one can participate in a game of chance within a specific period and the extent to which the game is suited to repetitive (recurring) play.

Findings arising from the subsidiary questions

The relationship between participation in number lotteries and other games of chance

It appears from this study that participation in number lotteries is supplementary in nature. In other words, number lotteries can be played in addition to but do not replace other games of chance. Moreover, there are no indications that participation in number lotteries encourages participation in other games of chance. Number lotteries apparently fulfil another function and are experienced differently from other games of chance.

The influence of the characteristics of number lotteries on the potential risk of gambling addiction

Accessibility and distribution

In the Dutch market, the Dutch State Lottery is the only number lottery that sells individual lottery tickets. Participation in the other three number lotteries of this study is only possible by means of subscription. Although the Dutch State Lottery is the largest lottery operator in terms of sales, it is not evident from the study that its risk potential surpasses that of the other number lotteries. As such, it is unlikely under the current conditions that the accessibility and form of distribution of the current number lotteries contribute to the risk of onset or persistence of gambling addiction.

Frequency of the draw

Under prevailing conditions, as set forth in the Dutch Betting and Gaming Act and gambling policy, Dutch number lotteries are typically games of chance with long odds and low event frequencies. The number of draws is limited to 14 per year - i.e. once a month with a few additional draws to mark special days or events. This study makes it clear that this type of number lotteries does not contribute to the onset and/or persistence of gambling addiction. It is evident from various foreign studies that lotteries such as the lotto game, with more frequent draws (for instance, daily draws) and higher event frequencies can indeed contribute to the onset and persistence of gambling addiction. It is therefore possible that Dutch number lotteries operated under different conditions to those currently prevailing, such as with a daily draw, could in fact contribute towards the onset and persistence of gambling addiction.

Chances of winning and size of the prize package

Although respondents, on being asked, indicated that they preferred a lottery with a greater chance of a prize than a lottery with a larger prize (and a smaller chance), practice shows that a very large prize is very appealing and that the sale of lottery tickets increases substantially in that case. However, this does not mean that these large prizes turn number lotteries into risky games of chance. Some characteristics, particularly tempting prizes, accessibility and advertising, seem to boost the sales of lottery tickets, without being the direct cause of the onset of gambling problems.

Cost of the wager

There are no indications from the subsidiary studies that the wager (price of the lottery ticket) influences the risk of gambling addiction in the case of number lotteries. The lottery tickets of the Dutch State Lottery cost more than those of the other three number lotteries. However, there are no marked differences in gambling problems among the four number lotteries.

'Suggested influence on the course of the game'

In the case of some games of chance (e.g. slot machines or blackjack), players think that they can influence how the game pans out. This 'suggested influence on the course of the game' is regarded as a risk factor for gambling addiction. No indications have been found in any of the current subsidiary studies of a relationship between the suggested influence on the course of number lotteries and the risk of gambling addiction. However, one group of respondents (mainly problem players whose gambling addiction can be related to other games of chance) does think that it can influence the course of number lotteries.

As no specific addiction to participation in number lotteries is evident from this study, it is difficult to demonstrate what the influence of the characteristics of number lotteries is on the risk of gambling addiction. The four number lotteries differ from each other in relation to the characteristics of each game, such as the cost of the wager, chance of winning and distribution, but these cannot be linked to specific risk factors for gambling problems.

Risk groups among number lottery participants

Due to the lack of gambling problems related to number lotteries, it is also not possible to describe risk groups specifically related to number lotteries.

Major motives for participating in number lotteries

The major motives cited by participants in number lotteries are of a financial and practical nature. Participants play in a number lottery because they want to stand an easy chance of winning a large sum of money. These motives apply to participation in all number lotteries. In addition, the charity motive plays a lesser role in the case of the Dutch State Lottery and a more significant role in the case of the National Postal Code Lottery and the Sponsor Bingo Lottery. Lastly, preventing regret caused by missing out on a prize plays a more significant role in the case of the National Postal Code Lottery than in the case of the other number lotteries.

Summaries

The brief reviews of the five subsidiary studies are presented below.

The literature study

It is clear from the literature study that the risk of gambling addiction is not as great for every game of chance. Based on different characteristics, a distinction can be made between games of chance with a relatively large and a relatively limited risk of gambling addiction. The most important characteristics which determine the risk of gambling addiction include the short versus long odds character of a game of chance. Games of chance in which the result of the wager is known a short time after making it (short odds) have a considerably higher risk than games in which the results are only known a long time after the wager is made. A related characteristic is the extent of the event frequency, namely the degree to which the game is suited to repetitive (recurring) play. A typical example of a game of chance with short odds and a high event frequency is slot machines (i.e. fruit machines or one arm bandits).

From this perspective, the number lotteries that are presently allowed in the Dutch market and that operate within the conditions set forth by the current Dutch Betting and Gaming Act and gambling policy belong to games of chance with a low risk of gambling addiction. They are typically games with long odds and a low event frequency. There are various international publications that refer to the risk of gambling addiction in the case of lotteries, for instance Grüsser, Plontzke, Albrecht, & Morsen (2007) and Felsher, Derevensky, & Gupta (2004). However, analysis of these publications shows that these studies include games of chance such as instant lotteries, the lotto game and daily-draw lotteries, which are significantly different from the aforementioned risk characteristics of the Dutch number lotteries. Accordingly, the results of these studies are not applicable to the situation in the Netherlands. These studies do however make it clear that the Dutch number lotteries could contribute to the onset and persistence of gambling addiction if they were to be played under different conditions to those that currently apply, for instance if a daily draw were to be introduced.

To sum up, the scientific literature on gambling addiction does not support any likely relationship between gambling addiction and participation in number lotteries as these are presently permitted and operate in the Netherlands under current legislative conditions.

The study among authoritative sources and both former and current gambling addicts

The results of the subsidiary study among people who are professionally involved with games of chance, lotteries and/or gambling addiction (hereinafter: authoritative sources) and both former and current gambling addicts are comparable to those of the literature study. The authoritative sources who were interviewed regard the existence of a direct relationship between participation in number lotteries (under current Dutch conditions) and gambling addiction as unlikely. They do not believe

that playing in number lotteries contributes *per se* to the onset or persistence of gambling addiction. This does not mean that people with gambling problems do not participate in number lotteries. Nevertheless, this participation is not regarded as a substantial or causal part of the gambling problem. A distinction is made, particularly on the basis of the short or long odds character of the game, between risky games of chance such as slot machines and far less risky games of chance such as number lotteries. Due to the long odds character of number lotteries, lottery players do not experience the pressure that can lead to gambling problems. Characteristics of number lotteries, such as the price of tickets, the amount of prize money and the suggestion of influence have an effect on participation but according to those interviewed do not affect the risk of gambling addiction.

The survey among participants in number lotteries

The subsidiary study among 75 regular lottery players also doesn't demonstrate any relationship between participation in number lotteries and gambling addiction. This part of the study was designed to provide more insight into the playing behaviour and patterns of possible lottery addicts, nevertheless it is clear that there are no lottery addicts among the respondent group of frequent and very frequent players. Despite great efforts to find respondents with problematic number lottery tendencies, no problematic lottery players could be found. This indicates that lottery addiction probably does not exist or is at least not obviously prevalent. The respondents did however include a female player who can be regarded as an at-risk player on the basis of the SOGS⁴ and whose problems are exclusively related to number lotteries. It is clear from the interview with two other respondents who partly related their problems to number lotteries that these problems are in fact mainly related to participation in other games of chance.

Respondents generally indicate that they do not experience their participation in number lotteries as addictive. Moreover, lottery players are not inclined to participate more in other games of chance because of their participation in number lotteries. Most respondents already had experience with other games of chance before they started participating in number lotteries. Although the lottery players participated more than average in other games of chance, this participation does not generally play any significant role for them.

The major reason why most respondents participate in number lotteries is the chance of winning a large sum of money. The majority also said that they regarded supporting good causes (charities) as a good reason for participation. Lastly, half of the respondents said they participate as a matter of habit.

⁴ The SOGS (Lesieur & Blume, 1987) is an instrument which can be used to categorise those who play games of chance as recreational players, at-risk players or problem players.

Secondary analyses of the population screening

It is evident from the 2004 screening conducted among the Dutch population aged 16 and older that number lotteries, in particular the Dutch State Lottery and the National Postal Code Lottery, are very popular. More than half of the Dutch population (55%) had participated in one of the four number lotteries focused upon in this screening during the previous year. Gambling-related problems, regardless of which game of chance, are not very frequent - 0.3% of the Dutch population are identified as problem players, while 0.6% are identified as at-risk players. In addition, no relationship with participation in number lotteries can be established. Gambling addiction is mainly related to participation in games of chance with short odds and not to participation in number lotteries.

A correlation with general gambling problems was found in the case of the BankGiro Lottery. There were more problem players (1.5%) among the respondents who participated in the BankGiro Lottery than among the respondents who do not participate in it (0.2%). However, it is apparent from further analysis that these problems mainly relate to participation in games of chance with short odds, specifically slot machines, and are not caused by participation in the BankGiro Lottery.

A correlation is also evident between gambling problems and the number of lottery tickets purchased to participate in number lotteries on an annual basis. This relates, more specifically, to a positive connection between the SOGS score and the number of tickets purchased to participate in the National Postal Code Lottery on an annual basis. However, it can also be stated in this case that the connection is not causal because alternative explanations have been found. In this way, the relationship between the SOGS and the frequency of participation in specific number lotteries seems to fall away as other factors are introduced into the analysis. In particular, the frequency of participation in games of chance with short odds (slot machines) is apparently closely linked to the SOGS and offers an explanation for the higher prevalence of gambling problems among frequent participants in the National Postal Code Lottery.

Gambling addicts' careers often start (at a young age) by playing slot machines or other games of chance with short odds. Participation in number lotteries only starts later. As such, the question as to whether participants in number lotteries are likely to start participating in riskier games of chance must be answered in the negative. In fact, the opposite applies in practice: people who participate in games of chance with short odds will ultimately also participate in number lotteries. However, participation in one number lottery is closely connected to participation in other number lotteries. As players increasingly participate in number lotteries, they often also do so with more lottery tickets for each draw.

In conclusion, it may be stated that no connection could be found in this subsidiary study between participation in number lotteries and the onset of gambling problems either. It is not true that gambling problems among participants in number lotteries is more prevalent than among players who do not participate in these lotteries.

None of the respondents who are problem players participate exclusively in number lotteries. All problem players who participate in number lotteries also participate in games of chance with short odds.

The survey with the aid of the Internet panel

The last subsidiary study relates to a survey with the aid of an online poll among a representative group of Dutch people (n = 6,783) 18 years and older. It is clear from this study once again that participation in number lotteries is very popular. Almost three-quarters of the respondents participated in one of the four number lotteries during the past year. The Dutch State Lottery and the National Postal Code Lottery are particularly popular. Almost two-thirds of the respondents participated in the Dutch State Lottery during the past year, whilst more than one-third participated in the National Postal Code Lottery. Almost half of the respondents participated in both number lotteries and other games of chance.

The incidence of gambling problems was established with the help of the SOGS. A distinction was made between gambling problems relating to participation in lotteries, to participation in other games of chance, or to participation in both. A further distinction was made between gambling problems that manifested themselves during the past year and gambling problems that manifested themselves at any time during the respondent's life.

Current gambling problems – i.e. those that manifested themselves during the past year - and which can only be attributed to participation in lotteries are rare. Only six respondents (0.1%) can be regarded as at-risk lottery players and none of the respondents can be regarded as problematic lottery players. Accordingly - and as also confirmed by this subsidiary study - 'lottery addiction' apparently does not exist. There are, however, a couple of players who report a few problems which they relate (partly) to participation in lotteries, such as not having the confidence to be able to stop participating without problems, who conceal lottery tickets from friends and relatives and participating in the game more frequently than intended. However, none of these cases leads to problems of such an extent that they can be labelled as problematic lottery participation.

Analyses make clear that there is no connection between participation in number lotteries and gambling problems. The absence of this connection means that it is unlikely that number lotteries are related to the onset and persistence of gambling problems. If this were the case, those that participate more regularly in number lotteries would also experience gambling problems more frequently and this does not happen. From the absence of a connection between number lotteries and gambling problems, and from the lack of people in the representative survey who could be termed problem lottery players, it is concluded that there is no relationship between participation in number lotteries and gambling problems. In other words, there is no such thing as 'lottery addiction' and participation in number lotteries does not directly contribute to the onset or persistence of gambling problems in the Netherlands.

References

- de Bruin, D. E., Meijerman, C. J. M., Leenders, F. R. J., & Braam, R. V. (2006). *Verslingerd aan meer dan een spel. Een onderzoek naar de aard en omvang van kansspelproblematiek in Nederland* (Obsessed with more than one game. A study into the nature and extent of gambling problems in the Netherlands). The Hague: CVO (the Addiction Research Centre) / WODC (Scientific Research and Document Centre).
- Felsher, J., Derevensky, J., & Gupta, R. (2004). Lottery participation by youth with gambling problems: are lottery tickets a gateway to other gambling venues? *International Gambling Studies*, 4 (2), 109 - 125.
- Grüsser, S. M., Plontzke, B., Albrecht, U., & Morsen, C. P. (2007). The addictive potential of lottery gambling. *Journal of Gambling Issues*, 19-30.
- Lesieur, H. R., & Blume, S. B. (1987). The South Oaks Gambling Screen (SOGS): a new instrument for the identification of pathological gamblers. *American Journal of Psychiatry*, 144 (9), 1184-1188.

