Are scratchcards addictive? : two-year cumulative incidence and stability of pathological scratchcard gambling among Dutch scratchcard buyers

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CHAPTER 4

A CLINICAL RE-EVALUATION OF THE DSM-IV CRITERIA FOR PATHOLOGICAL SCRATCHCARD GAMBLING

ABSTRACT

Aims: To examine the effects of the DSM-IV criterion for clinical significance (CCS) on the number of positive diagnoses of pathological scratchcard gambling (PSG) based on the DSM-IV symptom criteria.

Methods: In a previous prevalence study with a non-proportional stratified random sample of 12,222 adult scratchcard buyers in the Netherlands, 28 participants were identified as pathological scratchcard gamblers (PSG) using the DSM-IV Diagnostic Interview Schedule (DIS-T) adapted for scratchcards. These 28 PSG were approached for an in-depth face-to-face interview two years later. Ten (35.71%) agreed to participate: 5 cases were 'unique' PSG and 5 were combined PSG (i.e. PSG in combination with pathological gambling for other games of chance). Based on the transcripts of the in-depth interviews, two psychologists experienced in the treatment of pathological gambling independently rated the clinical significance of the PSG diagnoses.

Results: The clinicians agreed in 60% of the cases on the question whether or not the gambling problems fulfilled CCS. In 3 cases both rated the problems as endorsing the CCS and in 3 cases both agreed the problems did not reach clinical significance. The clinicians agreed on the classification of all 5 'unique' PSG cases and on only 1 of the 5 combined PSG cases. Compared to the outpatient clinician, the inpatient clinician used a higher threshold for clinical significance. When a lenient (i.e. outpatient) threshold is taken into account, 7 of the 10 PSG cases (2 unique and 5 combined) endorsed the DSM-IV criterion for clinical significance (CCS). When a more severe (i.e. in-patient) threshold is applied, only 3 of the 10 cases (2 unique and 1 combined) endorsed the CCS.

Conclusion: When the DSM-IV CCS is applied, the previously reported prevalence of unique PSG among a representative population of Dutch scratchcard gamblers (0.09%) is likely to be an overestimation of the actual prevalence.

INTRODUCTION

Between 1999 and 2002, The Amsterdam Institute for Addiction Research conducted a large-scale social-epidemiological study to assess the potential negative effects of scratchcard gambling using a sample of 12,222 adult scratchcard players in the Netherlands. The study provided prevalence figures on the nature and extent of scratchcard-related problems in the general population (DeFuentes-Merillas, et al., 2003). In addition, this study provided data on the temporal stability of scratchcard-related problems and on the characteristics of those suffering from pathological scratchcard gambling (PSG) (DeFuentes-Merillas, et al., 2004).

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1This chapter has been submitted for publication: DeFuentes-Merillas, L., Schippers, G.M., Koeter, M.W.J., Brink, W., van den. A clinical re-evaluation of the DSM-IV criteria for pathological scratchcard gambling.
The study’s main findings were: (1) that PSG has a low prevalence (0.24%) among Dutch adult scratchcard buyers; (2) that both the estimated two-year cumulative incidence (0.24%) and the temporal stability (between 11-43%) of PSG were low; and (3) that the prevalence of PSG is stable over time. Furthermore, the study showed that only one third of the 0.24% meeting the DSM-IV criteria for PSG (0.09%) was addicted uniquely to scratchcards. The remaining two thirds (0.15%) were also addicted to other games of chance. (For a detailed description of the findings of this prospective study we refer to the above-mentioned publications).

A limitation of this study is related to the application of the DSM-IV criteria used to identify PSG. The DSM-IV criteria for pathological gambling are considered the international standard for researchers and treatment professionals (National Opinion Research Center, NORC, 1999; Stinchfield, 2003), and their ultimate goals are to help clinicians and researchers to improve diagnostic accuracy, minimising the likelihood of false positives and false negatives and also to improve reliability by minimising criterion variance among studies (Spitzer & Wakefield, 1999). Despite this fact, there is still a lack of evidence regarding the reliability and validity of the diagnosis of pathological gambling in DSM-IV (APA, 1994) and the pathological gambling section of the DSM-IV Diagnostic Interview Schedule (DIS-T, APA, 1994). As a consequence, part of the reported prevalence and temporal stability estimates may reflect unreliability and validity problems of the assessment procedure used. The question, therefore, arises whether the identified ‘cases’ of PSG in our earlier studies can be considered pathological, i.e. in the sense of having reached the level for clinical significance comparable to that of other forms of pathological gambling or substance dependence. This seems a legitimate concern given the rather special characteristics of the unique pathological scratchcard gamblers: middle-aged women spending relatively small amounts of money on scratchcards (DeFuentes-Merillas et al., 2003). Accordingly, the appropriateness of the DSM criteria for PG applied to this particular form of gambling needs to be further investigated.

As a general rule, the DSM-IV attempts to deal with the false positives problem by adding the DSM-IV “criterion for clinical significance” (CCS) to all DSM-IV symptoms and to the total syndrome or diagnosis. This CCS requires that the individual exhibits “[...] clinically significant distress or impairment in social, occupational, or other important areas of functioning”. (American Psychiatric Association, 1994, page 7). The criterion is also meant to “help establish the threshold for the diagnosis of a disorder in those situations in which the symptomatic presentation by itself (particularly in its milder forms) is not inherently pathological” (American Psychiatric Association, 1994, page 7). Thus, the CCS might be helpful to distinguish between mild and more severe consequences of gambling. A distinction that might be related to the specific type of hazard game one plays (i.e. loss of control may indicate more severe problems when playing roulette than playing scratchcards). The clinical significance criterion is used in this study to assess the accuracy of DSM-symptom criteria and the DSM diagnosis applied among scratchcard players.

To this end a small qualitative study was conducted. In this study in-depth interviews were conducted with a sub-sample of 10 of the 28 identified PSG from the population-based
study mentioned above (DeFuentes-Merillas et al., 2003, 2004). The purpose of the present qualitative study was to investigate the validity of the DSM-IV diagnosis of PSG using a face-to-face structured interview and the DSM-IV criterion for clinical significance as assessed by two independent clinicians (concurrent validity).

METHODS

Sample
Twenty-eight participants from a non-proportional stratified random sample of 12,222 adult scratchcard players interviewed for a prevalence study were identified as suffering from PSG, i.e. they met the DSM-IV criteria adapted for PSG in the year preceding the assessment. Fourteen of them were addicted uniquely to scratchcards and 14 were also addicted to other games of chance. The DSM-IV symptom criteria were assessed with an adapted version of the gambling section of the DSM-IV Diagnostic Interview Schedule (DIS-T). Two years later 10 respondents (35.7% of the original 28 PSG cases) agreed to participate in the present extensive in-depth interview. Informed consent to have the interview audiotaped was obtained from all participants and confidentiality and anonymity were warranted. Participants received €50 as a compensation for the time invested in the study.

Table 4.1 Demographics and participation in games of chance for the PSG identified at initial assessment and for the PSG participating in the in-depth interviews.

<table>
<thead>
<tr>
<th></th>
<th>Prevalence assessment</th>
<th>In-depth interview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PSG (n=28)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combined</td>
<td>N=14</td>
<td>Combined</td>
</tr>
<tr>
<td>Unique</td>
<td>n=14</td>
<td>n=5</td>
</tr>
<tr>
<td>Men</td>
<td>71.4%</td>
<td>60.0%</td>
</tr>
<tr>
<td>Women</td>
<td>28.6%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Mean age</td>
<td>36.9</td>
<td>39.4</td>
</tr>
<tr>
<td>Dutch</td>
<td>42.9%</td>
<td>40.0%</td>
</tr>
<tr>
<td><strong>Scratchcards previous month</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of playing (median)</td>
<td>15.5</td>
<td>15</td>
</tr>
<tr>
<td>Amount of money spent (median)</td>
<td>€85.08</td>
<td>€90.76</td>
</tr>
<tr>
<td><strong>Other games of chance previous month</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of playing (median)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Amount of money spent (median)</td>
<td>€159.70</td>
<td>€160.64</td>
</tr>
<tr>
<td>Slot machines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lotto/toto/other lotteries</td>
<td>50.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Casinos (excl. slot machines)</td>
<td>71.4%</td>
<td>80.0%</td>
</tr>
<tr>
<td>Other games of chance^1</td>
<td>28.6%</td>
<td>20.0%</td>
</tr>
<tr>
<td></td>
<td>35.8%</td>
<td>30.0%</td>
</tr>
</tbody>
</table>

^1 Other games of chance includes a combination of several short-payout interval games (i.e. participation in cards games for money outside the home, bingo, internet gambling, horse-race betting, and other games of chance).

A detailed description of the original sample and of the results of this prevalence study have been published elsewhere (DeFuentes-Merillas et al., 2003).
Criteria for clinical significance

Of the 10 PSG respondents, 5 were addicted uniquely to scratchcards, the remaining 5 were also addicted to other games of chance. Table 4.1 displays the demographic and gambling characteristics at initial assessment ($t_1$) of these groups in comparison with the original group of 28 pathological scratchcard gamblers.

Instruments and procedure
Pathological gambling and pathological scratchcard gambling (PSG) were defined as fulfilling the Diagnostic and Statistical Manual 4th edition (DSM-IV) criteria for pathological gambling. Both were assessed with the Pathological Gambling Section of the DSM-IV Diagnostic Interview Schedule (DIS-T, APA, 1994), although for the assessment of PSG an adapted version of the DIS-T interview was used (the adaptation basically meant the replacement of the word ‘gambling’ by ‘scratchcard gambling’). An example of this adaptation has been reported in the previous two studies (DeFuentes-Merillas et al., 2003, 2004). A mania screener based on Section F of the DSM-IV Diagnostic Interview Schedule (DIS-F, APA, 1994) was used to exclude subjects with a current manic episode. Participants were defined as pathological scratchcard gamblers if they met the DSM-IV criteria for pathological gambling, i.e. presence of at least five of the defining criteria during the year prior to the assessment and were not suffering a mania episode.

The DSM-IV criterion for clinical significance (CCS; see the introduction section), served as an additional criterion for PSG. The assessment of the CCS was made in two phases: an in-depth interview with the 10 PSGs and a coding phase.

The Gambling Problems Severity Scale (GPSS, Koeter, et al., submitted) was included in this study to assess the severity of the gambling-related problems among PSG. The GPSS comprises 20 items in four 5-item subscales, covering the following domains: Psychological and Emotional Health (PEH), Family and Social Relations (FSR), Financial Consequences (FC) and Work and Education (WE). The total scale as well as the four subscales fulfilled the criteria of the Rasch model. This implies among others characteristics that 1) they are one-dimensional, and 2) interval severity scores can be obtained using a relatively simple transformation. The psychometric properties of the total scale, as well as, each of its subscales are good (Koeter et al., submitted).

In-depth interview
The aim of the current face-to-face in-depth interview was to explore in more detail the scratchcard-related behaviours and problems that the participant had referred to in the diagnostic interview using the DIS-T at initial assessment ($t_1$). The nature of the gambling behaviour and the problems mentioned then were extensively explored, and illustrative examples of the symptoms were sampled. The interviewer focused in a retrospective manner on all the DIS-T items that the participant had endorsed. The interviews were conducted by two experienced lay interviewers. They had attended a one-day training course and worked with a detailed semi-structured protocol to ensure the integrity of the interview in terms of interview content, the use of a coding sheet and interview techniques like the use of a retrospective timeframe, open questions and different confronting techniques, in case that the
participant reported contradictory information during this in-depth interview. The interviews were conducted at the participant’s home and took an average of 90 minutes. All ten interviews were tape-recorded. After every interview feedback was given to the interviewer in a supervision session to minimize drift during the study.

**Interview coding**

All interviews were transcribed. Two clinicians with extensive clinical experience (16 and 13 years of practice in addiction treatment, including gambling problems) were approached to independently code the ten verbatim interview transcriptions using a coding sheet. Since the threshold for clinical significance may differ when it is assessed by clinicians working in different contexts, one coder was selected from an inpatient clinic whilst the other was recruited from an outpatient treatment centre. The coding sheet and coding instructions were developed to instruct the coders on how to make use of the coding sheet and to ensure comprehension of the DSM-IV CCS. The coding sheet was piloted independently by the first two authors. The coding instructions covered every DSM-IV symptom with the question whether or not participants fulfilled the CCS on the basis of the behaviours, problems and circumstances that the interviewee presented in relation to this symptom. More precisely, clinicians were asked to evaluate if participants met one or both of the following conditions at symptom level: (a) whether the symptom limited or impeded the proper fulfilment of a role function or whether it affected the person’s performance (i.e. caused clinically significant distress or impairment in social, occupational, or other important areas of functioning) or (b) whether the symptom referred to a subjective experience of “not feeling well”. Participants were considered a clinically significant case if at least one of the clinicians considered the participant to meet the DSM-IV case of PSG at a clinically significant level, i.e. had a minimum of five clinically relevant positive scores out of the ten DSM-IV symptoms.

**RESULTS**

Based on the CCS, the outpatient clinician classified 7 of the 10 PSG as clinical significant PSG, whereas the inpatient clinician classified only 3 of the 10 cases as clinically significant. These results suggest that the inpatient therapist used a higher threshold in the assessment of clinical significance.

The clinicians agreed in 60% of the cases on the question whether or not the gambling problems fulfilled CCS. In 3 cases both rated the problems as endorsing the CCS and in 3 cases both agreed the problems did not reach clinical significance. The clinicians agreed on all 5 unique PSG cases and on only 1 of the 5 combined PSG cases. Compared to the outpatient clinician, the inpatient clinician used a higher threshold for clinical significance. When using the more lenient (i.e. outpatient) threshold, 7 of the 10 cases (2 unique and 5 combined) endorsed the DSM-IV criterion for clinical significance (CCS). Using a more severe (inpatient) threshold, only 3 of the 10 cases (2 unique and 1 combined) endorsed the CCS.
Criteria for clinical significance

Although clinicians agreed in 60% of the cases whether or not participants were a clinically significant case (diagnostic level), a comparison between the mean number of clinically significant criteria a patient endorsed showed that they differed on their judgement of CCS at symptom level. With the exception of the withdrawal and lies/deception symptoms, the outpatient clinician always coded more DSM symptoms as endorsing CCS than the inpatient clinician. These results provide additional support for the fact that outpatient and inpatient clinicians use different threshold levels in the assessment of clinical significance.

Table 4.2 presents the ratings per clinicians for the DSM-IV CCS at symptom level for the ten PSG cases (Table 4.2). For both clinicians the most prevalent symptom of PSG was preoccupation (outpatient n=10, inpatient n=8) and the least prevalent PSG symptom was illegal acts (outpatient n=1; inpatient n=0). At symptom level, total agreement was only reached for the PSG symptom lies/deception. For the unique PSG group total concordance between coders at symptom level was found for the following DSM-IV criteria: escapism, lies/deception, illegal acts and family/job disruption. For the combined PSG group total concordance between coders at symptom level was found for the following DSM-IV criteria: preoccupation and lies/deception. The largest discrepancy was found for the criterion tolerance.

Table 4.3 shows several demographic characteristics, the number of endorsed DSM-IV symptoms according to the DIS-T, the number of clinically significant DSM-IV symptoms according to the clinicians and the severity of the gambling problems according to the self-report GPSS for the 5 unique PSGs.

<table>
<thead>
<tr>
<th>Case</th>
<th>Group</th>
<th>Age</th>
<th>Gender</th>
<th>CCS</th>
<th>DIS-T</th>
<th>GPSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U*</td>
<td>66</td>
<td>M*</td>
<td>9*</td>
<td>7*</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>U</td>
<td>46</td>
<td>W</td>
<td>4*</td>
<td>1*</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>U</td>
<td>66</td>
<td>M</td>
<td>3*</td>
<td>3*</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>U</td>
<td>41</td>
<td>W</td>
<td>4*</td>
<td>0*</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>U</td>
<td>60</td>
<td>W</td>
<td>9*</td>
<td>8*</td>
<td>6</td>
</tr>
</tbody>
</table>

* U = unique PSG group and C = combined PSG group.
  b A = outpatient clinician and B = in-patient clinician.
  c M = man and W = woman.
  d Agreement between coders at diagnostic level.

When the three instruments used to assess the participants' situation (DIS-T, GPSS and CCS) are compared, it is clear that both clinicians identified more DSM-IV symptoms as clinically significant than when the DIS-T was applied. In addition, the two unique cases that both clinicians classified as CCS cases scored above 4 on the GPSS. This seems to indicate that the total score of the GPSS is more in line with the clinician's CCS ratings than the DIS-T.
Table 4.2 DSM-IV criterion for clinical significance at symptom level per participant for both clinicians.

<table>
<thead>
<tr>
<th>Case</th>
<th>Group</th>
<th>Preoccupation Clinician</th>
<th>Tolerance Clinician</th>
<th>Loss control Clinician</th>
<th>Withdrawal Clinician</th>
<th>Escapism Clinician</th>
<th>Chasing Clinician</th>
<th>Lies/deception Clinician</th>
<th>Illegal acts Clinician</th>
<th>Fam./Job disruption Clinician</th>
<th>Financial bailout Clinician</th>
<th>Total score DSM-IV Clinician</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>U*</td>
<td>1</td>
<td>1</td>
<td>0*</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>U</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>3</td>
<td>U</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>4</td>
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<td>1</td>
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<tr>
<td>6</td>
<td>C*</td>
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<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>C</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>C</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>C</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>C</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total per clinician</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>2</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

* A = outpatient clinician and B = in-patient clinician.
* U = unique PSG group and C = combined PSG group.
* 1 means that the criterion for clinical significance was met, and 0 that this criterion was not met.
* Agreement between coders at diagnostic level
DISCUSSION

The current study shows that about one-third of the PSG cases fulfilled the DSM-IV CCS using a severe (inpatient) threshold and two-thirds fulfilled the DSM-IV CCS using a more lenient (outpatient) threshold. The picture differs for unique and combined PSGs. Of the unique PSGs 40% fulfilled the DSM-IV CCS (irrespective of the threshold used) whereas 100% of the combined cases fulfilled the CCS using the lenient threshold and 20% using the more severe threshold. These results indicate that the diagnosis ‘unique’ PSG based on the DSM-IV criteria as assessed with the DIS-T in the majority of cases does not represent clinically significant psychopathology. On the other hand, following the same procedure, the diagnosis for ‘combined’ PSG does seem to represent clinically significant psychopathology in many if not all of the cases.

As a consequence, the current findings suggest that the previously reported prevalence rate of unique PSG (0.09%) is likely to be an overestimation of the ‘real’ prevalence of this addiction among scratchcard players. This is probably not the case for combined PSG (0.15%) (DeFuentes-Merillas et al., 2003).

However, it is important to be cautious with statements about the potential overestimation of our previous prevalence rates, since the results of this qualitative study are only based on a sub-sample of 10 of the 28 PSGs identified at the initial assessment. Moreover, the retrospective character of the in-depth interviews may have caused underreporting of the scratchcard-related problems suffered two-years earlier in the participants, particularly given the high recovery rate of PSG found in the two-year follow-up (DeFuentes-Merillas et al., 2004). However, this concern of potential underreporting during the in-depth interviews does not seem to apply to the two unique pathological scratchcard gamblers that were identified as clinically significant cases, because the clinicians identified more DSM-IV symptoms as clinically significant than the number of symptoms identified by the DIS-T.

The outpatient clinician was always more lenient in the application of the DSM CCS than the inpatient clinician. Variables like the clinician’s background and/or the co-morbidity of PSG with a primary pathological gambling disorder may explain the low level of agreement between the clinicians for the ‘combined’ group. These results lend support to the hypothesis that there are different threshold levels, in terms of clinical significance at inpatient and outpatient settings; a phenomenon also observed in other disorders. On the other hand, the perfect rater agreement at the diagnostic level between both clinicians for the unique PSG may be explained by the fact that unique PSGS either fall into the upper clinical range (≥7 symptoms for both clinicians) or into the lower sub-clinical range (≤3 for the inpatient clinician).

The application of a lenient (i.e. outpatient) criterion of CCS may underestimate the false positive problem. However, in our opinion, if a person fulfils the DSM-IV CCS from an outpatient setting point of view, he/she is a true case.

In summary, when a lenient threshold is used, 70% of the identified ‘cases’ of PSG are to be considered pathological, in the sense of reaching the level for clinical significance
However, for unique PSG the bias is probably much larger. In this group only 40% reached the criterion for clinical significance. As a consequence, the previously reported prevalence of 'unique' PSG among a representative population of Dutch scratchcard gamblers (0.09%) is likely to be an overestimation of the actual prevalence.

REFERENCES


ACKNOWLEDGEMENTS

The authors would like to thank the clinicians Mr. H. Nelissen and Mr. J. J. Schijf for their ratings of the interviews.
APPENDIX 4 I CASE STUDIES

This appendix briefly illustrates the 2 cases of unique pathological scratchcard gamblers. They are selected from those for which both clinicians agreed that the scratchcard-related problems reached the DSM-IV criterion for clinical significance (CCS) based on the DSM-IV symptom criteria for pathological scratchcard gambling (PSG) (Cases 1 and 2).

Case 1
The participant is a 66-year-old man, married, and living from his pension (between € 900 and € 1350 a month). During the in-depth interview, he reported that two years ago he was addicted to scratchcards. For several months, the drive to buy scratchcards was so high that he neglected his allotment because he preferred to spend his time playing scratchcards.

During an average month he spent between € 40 and € 60 on scratchcards. However, during this in-depth interview he recognised that during his worst scratchcard period he used to spend € 5 to € 10 a day (€ 150-300 a month). He always bought the scratchcards in the same shop because it was where he used to buy his cigarettes, and because this shop sold once a scratchcard with a price of € 50.000.

Both clinicians agreed that he scored the following DSM-IV criteria when considering the CCS: preoccupation, loss of control, withdrawal, escapism, lies/deception, and family and job disruption (See Table 4.2, page 67, Case 1 of the unique PSG). In the following paragraphs we illustrate these symptoms with quotes from his in-depth interview.

Preoccupation and chasing: “I was continuously thinking about going back to the shop to buy more scratchcards, to get the losses back […] You think that you will win your money back, that you keep in playing, but the wins never happens. That is the misery of it!”

Loss of control: “Before I went to the shop, I planed to spend € 10 in 8 scratchcards, but you go and buy 4 or 6, and you don’t win anything. Then, you buy a couple more, and a couple more Well, that is how it goes! […] You think very frequently, I am not going back to that shop to buy this “nonsense”, but the day after you are there again”.

Withdrawal: “When I couldn’t buy them I was not feeling good, nervous or even irritable, and those feelings disappear after buying […] even when I was on vacation in Belgium I went to the shops seeking that ‘rubbish’ (scratchcards)”.

Escapism: “If you buy and play, you think in the money that you are going to earn and all the things that you can do with that money, of course, you forget your current problems. Yeah that is it! You don’t think in your problems only in the prices”.

Lies/deceptions and family disruption: “My wife complains a lot about it, she hates that game. We had several fights about it. Of course, I continue playing and then you feel very miserable. I hid it! I make up stories in order to buy or scratch them in secret”.

Case 2
The participant is a 60-year-old woman, living alone and with a social benefit as income (between € 450 and € 900). During the in-depth interview, she reported that, two years ago, the scratchcard-related problems were so severe that she spent all her money on scratchcards,
and at the end of the month she needed to borrow money to buy her food. In her own words: "It was a real disaster".

She regularly followed the same pattern of spending 2 scratchcards, 6 to 7 times a week. Although, she recognised that she used to have a "peak" in her playing behaviour around the 20th of every month, and then she will bought until all her money was gone. She spent around €140 a month, when she should not have spent more than €25, in order to avoid financial problems.

Both clinicians agreed that she scored the following DSM-IV criteria when considering the CCS: preoccupation, loss of control, withdrawal, escapism, lies/deception, family and job disruption and financial bailout (See Table 4.2, page 67 Case 5 of the unique PSG). In the following paragraphs, we will illustrate these symptoms with quotes from the transcriptions of the in-depth interview with her.

**Preoccupation:** "I was thinking all the time in winning, winning, winning" [... "and then, when I was back home, I was feeling bad because I did not do other thing that buying scratchcards and thinking about that next time I will buy and win"].

**Loss of control:** "I tried to stop, I really tried, but well, yeah...I did not succeed, I cannot do anything about it...I say to myself 'don't buy, don't buy', but still you go and buy".

**Withdrawal:** "Other people smoke or drink which are very bad things to do. I do something less bad, I keep in buying scratchcards. [...] I feel a bit restless when I don't have more money to buy them, this unpleasant goes with the time, but it comes back too".

**Escapism:** "When I buy and play scratchcards, I forget my problems, I am just excited about the winning, and I enjoy that feeling, no worries, just winning".

**Chasing:** "I have many times feeling guilty, but still the next day, I need to go and buy scratchcards, always hoping I will win. For example this morning, I thought, if I win now I will get my money back. You are constantly thinking about it".

**Lies/deceptions and family disruption:** "No, I never tell to nobody. If they know they will never lean me money. It is my own secret, if my sons will know, they will get angry. Once I mentioned that I bought one and they called me gambler! [...] If someone will ask about it, I will deny it or change the conversation. If they know I will get problems".

**Financial bailout:** "Yes, I have money problems at the end of the month because of the scratchcards, and if you don't have money, then you cannot buy food, ... I had that for almost 3 years...Then, you borrow money to buy food, or when you are hungry you just visit family or friends around dinner time. Of course you feel awful about it, but I couldn't help it".