The impact/importance of Therapeutic Contract and CBT treatment in gambling disorder: A Pilot Study
Gambling disorder (both online and offline) is a generalized public health problem.

It incurs personal and family costs (e.g. problems with relationships, communication, finances and work) associated with psychiatric comorbidity (e.g. depression, anxiety, personality disorders).

Cognitive Behavior Therapy (CBT) shows good results in various areas related to behavior addictions (Patrão & Sampaio, 2016).

As far as we know, there are no CBT intervention studies using Portuguese gamblers as a sample.
In 2017, Portugal had 0.6% probable pathological gamblers (2 times more than in 2012) and 1.2% (4 times more than in 2012) of people over 16 years old with some problem gambling (SICAD, 2017).

Portugal follows other European and “Western countries” in that it shows very similar results concerning the overall increase of gambling, both online and offline (i.e. prevalence of problem gambling, predictors, comorbidities) (Hubert, 2015).
BACKGROUND

• The Portuguese Gambler Support Institute (IAJ) is a private and independent organization centered on problem gambling treatment, helpline coordination, training, supervision and research. The IAJ started to develop an individual intervention protocol, based on CBT techniques, that has been applied to online and offline gamblers since 2006 (Hubert, 2016).

• A Therapeutic Contract (TC) was established as a set of guidelines to be negotiable, accepted and followed by patients (i.e. self-exclusion, access to money controlled by a person they trust) while also including the psychotherapeutic sessions in the CBT approach.
STUDY AIM

• The aim is to evaluate the efficacy of the usual CBT intervention protocol, with special focus on the initial Therapeutic Contract, and reasons for relapse, with a view to establishing a treatment program for Portuguese problem gamblers.
METHOD

• Participants: 71 participants, female = 10 (mean age = 50.3; SD = 12.0); male = 61 (mean age = 33.4; SD = 10.30);

• Instruments: 1- The evaluation protocol: Sociodemographic and Gambling Behavior Questionnaire (Hubert, 2015); 2- SOGS (Lesieur & Blume, 1987); 3- Therapeutic Goals Contract (Hubert, 2010)

• Procedure: The 71 participants were voluntarily recruited by the IAJ and fulfill an evaluation protocol before the CBT intervention (moment 1) and for at least 6 months (or 15 sessions) after the intervention (moment 2). This is agreed and embodied in a Therapeutic Contract during their first session.

• During treatment, the central focus was on the following:
  a) Therapeutic Contract
  b) CBT strategies regarding relationships with significant others, life and gambling history, beliefs and cognitive distortions, behavior and patterns of gambling triggers, management of stress and emotions, life skills development, relapse prevention, family meetings, et cetera, following our treatment program.
## METHOD

### Therapeutic Contract for 6 months

**Goals/Guidelines**

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>To prepare and meet a debt repayment plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Total abstinence from any kind of (money) gambling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Avoid people, places and situations related to gambling</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Self-exclusion from physical or virtual gambling (facilities/sites)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Limit/control access to money/cards/checks, etc.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Having significant others/family involved in the treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Participate in individual and group psychotherapy sessions (15 in 6 months)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Read and do therapeutic exercises</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Participate in meetings of self-help groups (GA groups)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Be contactable/reachable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Consequence chosen by patient, if relapse or failure to fulfill contract terms during treatment:**

Examples given: go to inpatient treatment, do not see the grandchildren, etc.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signature:____________________

Date:______________
METHOD

Adherence of the subjects to the T.C.

1. Elaborate/comply with a debt reimbursement plan
2. Total abstinence from any kind of cash game
3. Avoid people, locations and game-related situations
4. Self-exclusion from physical or virtual gambling...
5. Limit access to money
6. Having significant people participating in the...
7. Participate in individual psychotherapies
8. Read and do therapeutic exercises
10. Being contactable/reachable
11. Define to yourself neg. consequence(s) in case of...

No (%)
Yes (%)

[Bar chart showing adherence percentages for each item]
### Sample characterization

<table>
<thead>
<tr>
<th>Variables</th>
<th>Labels</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Men</td>
<td>92,3</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>7,7</td>
</tr>
<tr>
<td>Education</td>
<td>1-4 years</td>
<td>1,4</td>
</tr>
<tr>
<td></td>
<td>5 – 9 years</td>
<td>9,9</td>
</tr>
<tr>
<td></td>
<td>10 – 12 years</td>
<td>22,5</td>
</tr>
<tr>
<td></td>
<td>Licenciate</td>
<td>42,3</td>
</tr>
<tr>
<td></td>
<td>Master’s</td>
<td>19,7</td>
</tr>
<tr>
<td></td>
<td>PhD</td>
<td>2,8</td>
</tr>
<tr>
<td></td>
<td>Professional qualification</td>
<td>1,4</td>
</tr>
<tr>
<td>Job</td>
<td>No</td>
<td>30,8</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>69,2</td>
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</tbody>
</table>
# RESULTS - Total Sample

## Sample characterization

<table>
<thead>
<tr>
<th>Variables</th>
<th>Labels</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional category</td>
<td>Military</td>
<td>4,8</td>
</tr>
<tr>
<td></td>
<td>Entrepreneurs and managers</td>
<td>14,3</td>
</tr>
<tr>
<td></td>
<td>Intellectual and scientific</td>
<td>52,4</td>
</tr>
<tr>
<td></td>
<td>Intermediate technicians</td>
<td>4,8</td>
</tr>
<tr>
<td></td>
<td>Administrative</td>
<td>9,5</td>
</tr>
<tr>
<td></td>
<td>Salespersons</td>
<td>14,3</td>
</tr>
<tr>
<td>Annual income</td>
<td>&lt; 10.000</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>10.001 a 15.000</td>
<td>4,5</td>
</tr>
<tr>
<td></td>
<td>15.001 a 25.000</td>
<td>30,3</td>
</tr>
<tr>
<td></td>
<td>25.001 a 40.000</td>
<td>31,8</td>
</tr>
<tr>
<td></td>
<td>40.001 a 60.000</td>
<td>21,2</td>
</tr>
<tr>
<td></td>
<td>60.001 a 100.000</td>
<td>10,6</td>
</tr>
<tr>
<td>Marital relationship</td>
<td>No relationship</td>
<td>26,8</td>
</tr>
<tr>
<td></td>
<td>With relationship</td>
<td>73,2</td>
</tr>
<tr>
<td>Locale</td>
<td>Rural</td>
<td>12,7</td>
</tr>
<tr>
<td></td>
<td>Urban</td>
<td>71,8</td>
</tr>
<tr>
<td></td>
<td>Suburban</td>
<td>15,5</td>
</tr>
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</table>
### RESULTS - Total Sample

#### Sample characterization

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18</td>
<td>67</td>
<td>36.01</td>
<td>11.971</td>
</tr>
<tr>
<td>Years in marital relationship</td>
<td>1</td>
<td>40</td>
<td>9.56</td>
<td>9.512</td>
</tr>
<tr>
<td>Days per week</td>
<td>2</td>
<td>7</td>
<td>5.09</td>
<td>1.837</td>
</tr>
<tr>
<td>Hours per day (week)</td>
<td>1</td>
<td>24</td>
<td>5.14</td>
<td>4.373</td>
</tr>
<tr>
<td>Hours per day (weekend)</td>
<td>1</td>
<td>25</td>
<td>7.50</td>
<td>4.807</td>
</tr>
<tr>
<td>Days per week – how much would be suitable for you?</td>
<td>1</td>
<td>7</td>
<td>3.33</td>
<td>1.730</td>
</tr>
<tr>
<td>Hours per day (week) – how much would be suitable for you?</td>
<td>1</td>
<td>24</td>
<td>3.87</td>
<td>5.232</td>
</tr>
<tr>
<td>Hours per day (weekend) – How much would be suitable for you?</td>
<td>1</td>
<td>48</td>
<td>4.58</td>
<td>8.243</td>
</tr>
</tbody>
</table>
RESULTS - Clinical Groups

- Relapsed; 32%
- Abstinents; 34%
- I had a relapse, but now I’ve been abstinent for more than 3 months; 34%

No, never (Abstinents)
Yes, a lapse, but I’ve been abstinent for over 3 months (Abstinents)
Yes (Relapsed)
Question 3. Which of these items had the most positive impact on your treatment?

3. How would you rate that impact on a scale of 1 to 7?

<table>
<thead>
<tr>
<th>Item</th>
<th>Abstinent</th>
<th>Relapsed</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Limitation on money</td>
<td>4.67</td>
<td>5.04</td>
<td></td>
</tr>
<tr>
<td>b) Limitation on game access/Autoexclusion</td>
<td>4.46</td>
<td>3.61</td>
<td></td>
</tr>
<tr>
<td>c) Sessions of individual psychotherapy (verbalization, empathy,...)</td>
<td>5.85</td>
<td>5.23</td>
<td>p=.050*</td>
</tr>
<tr>
<td>d) Group psychotherapy sessions (if you attended them)</td>
<td>4.38</td>
<td>3.89</td>
<td></td>
</tr>
<tr>
<td>e) Therapeutic Work</td>
<td>4.81</td>
<td>4.04</td>
<td></td>
</tr>
<tr>
<td>f) Good relationship with psychologist/therapist</td>
<td>6.26</td>
<td>5.39</td>
<td>p=.033**</td>
</tr>
<tr>
<td>g) Be employed/busy Participation/support of spouse/family</td>
<td>6.26</td>
<td>5.39</td>
<td></td>
</tr>
<tr>
<td>h) Participation/support of spouse/family</td>
<td>4.82</td>
<td>4.04</td>
<td></td>
</tr>
<tr>
<td>i) Have paid or managed debts</td>
<td>5.13</td>
<td>4.59</td>
<td></td>
</tr>
</tbody>
</table>

t-Student Test: p<0.05
Question 4. During this gambling abstinence did you experience excess or have problems with any of these items?

4. How would you rate that impact on a scale of 1 to 7?

RESULTS - Total Sample

- Total Sample

<table>
<thead>
<tr>
<th>Item</th>
<th>Abstinent Mean</th>
<th>Relapsed Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Alcohol</td>
<td>2.6</td>
<td>2.7</td>
</tr>
<tr>
<td>b) Drugs (includes medication abuse, pills...)</td>
<td>2.9</td>
<td>2.29</td>
</tr>
<tr>
<td>c) Tobacco</td>
<td>4</td>
<td>4.38</td>
</tr>
<tr>
<td>d) Other addictive behaviors (Purchases/sex/sports...)</td>
<td>3.72</td>
<td>3.93</td>
</tr>
<tr>
<td>e) Depression</td>
<td>4.03</td>
<td>3.37</td>
</tr>
<tr>
<td>f) Anxiety/stress</td>
<td>5.03</td>
<td>5.23</td>
</tr>
<tr>
<td>g) Management of feelings/thinkings/behaviours</td>
<td>5.53</td>
<td>4.77</td>
</tr>
</tbody>
</table>

p=0.008**

* RESULTS is the title of the section, indicating the focus on the findings or outcomes of the study. The text includes a question about the impact of gambling abstinence on various items, followed by a graph comparing the means for each item between abstinent and relapsed groups. The graph shows the mean values for each category, with the highest mean for management of feelings/thinkings/behaviours. The t-Student Test indicates statistical significance at p<0.05.
**RESULTS - Total Sample**

Question 7. Do you feel that you need to ensure some kind of maintenance in order to have sufficient quality of life or to prevent relapse?

7. If yes, what kind of maintenance?

- **Abstinents**
  - a) Therapy: 5.44
  - b) Self-help groups: 5.21
  - c) Take medication (prescribed by doctor): 4.63
  - d) Volunteering: 3.57
  - e) Another form of personal development: 4.04
  - f) Other: 4.33

- **Relapsed**
  - a) Therapy: 4.96
  - b) Self-help groups: 3.45
  - c) Take medication (prescribed by doctor): 4.39
  - d) Volunteering: 2.91
  - e) Another form of personal development: 3.57
  - f) Other: 3

**p=.008**

**t-Student Test: p <0.05**
Question 5. Do you attend self-help groups (Gamblers Anonymous)?

**RESULTS - Total Sample**

<table>
<thead>
<tr>
<th>Question 5</th>
<th>Relapsed</th>
<th>Abstinents</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Do you attend self-help groups?</td>
<td>82.61% No, 17.39% Yes</td>
<td>55.32% No, 44.68% Yes</td>
</tr>
</tbody>
</table>
About relapse:
Question 8. Have you had any relapse?

Results

- No, never (Abstinents); 24; 34%
- Yes, a lapse, but I've been abstinent for over 3 months (Abstinents); 24; 34%
- Yes (Relapsed); 23; 32%

Relapsed (N=23)
Question 9. Which of these factors contributed to your relapse?
9. If yes, how intense is this contribution? (Therapeutical Contract)

- e) Do not limit/control cash access/cards/cheques, etc.
- b) No total abstinence from any kind of cash game.
- a) Do not elaborate or comply with a debt reimbursement plan.
- i) Do not participate in self-help group meetings (J.A.).
- h) Do not even read therapeutic work.
- j) Not be reachable.
- g) Do not participate in individual psychotherapies/regular group.
- k) Do not define to yourself neg. consequence(s) in case of relapse
- c) Do not avoid people, locations and game-related situations.
- d) Do not ask for opt of physical or virtual gaming sites.
- f) Do not have significant people participating in the treatment.
Question 10. Other factors potentially precipitating relapse?

10. If yes, how would you rate that influence?

- i) To be able to bet amounts and in periods of controlled form
- f) Existence of marital/Labour/family conflict/or other
- e) Absence of realistic objectives (professionals, academics, etc.)
- c) Not fill in free time/hobbies
- b) Break/change in rhythm Sleep-vigil and/or feed
- h) Illusion of Control, challenge (go to casino to see but not play)
- g) Financial problems, debts, etc.
- D) Absence of practice of physical exercise;
- a) Absence of working habits, rules or limits
Question 11. What affected you most in the relapse experience?

11. Rate that intensity on a scale of 1-7.

- f) Return of obsession, compulsion and impulsiveness to gambling: 5.57
- e) Self-criticism, self-devalue: 5.52
- c) Face family, therapist, GA members, friends,...: 5.26
- a) Losing time of abstinence: 5.23
- b) Shame (disability, inadequacy, inferiority, etc...): 4.91
- d) Frustration: 4.74

RESULTS – Relapsed Subjects
Question 12. Was the suffering you felt after the relapse inferior (less) or superior (more) than your previous gambling experience?

Superior: 73%
Inferior: 27%
Question 13. Did any of the following situational factors have an influence on your relapse?

13. If yes, how would you rate that influence? Likert scale 1 to 7

- e) Accessibility, diversity and availability: 5.48
- d) Culture of acceptance and promotion of the game: 4.55
- c. Facilitating legislation: 4.22
- a) Marketing and advertising stimulus to game practice: 3.95
- b) Peer pressure, friends, co-workers, family,...: 3.61
Question 14. Have any of the following **structural factors** influenced your relapse?

14. If yes, what is the existing degree of that influence?

![Bar chart showing results](chart.png)

- a) Amount of money
- b) Rapid delivery of the money
- c) Frequency and speed in betting
- d) Speed of response in relation to the bet
Question 15. During your relapse did you gamble on your previously favorite game?

- Yes (%): 60.87
- No (%): 39.13
Question 14. Did any of the following games have an influence on your relapse?

Gambling Types (Online gamblers)
- e1) EuroMillions/Lotteries: 24%
- e2) Scratch Card: 8%
- e3) Machines/Slots: 20%
- e4) Poker or other card games: 21%
- e5) Sports Betting: 12%
- e6) Roulette or other countertops games: 7%
- e7) Simulation/demo games with no real money: 8%

Gambling Types (Offline gamblers)
- e1) EuroMillions/Lotteries: 24%
- e2) Scratch Card: 6%
- e3) Machines/Slots: 25%
- e4) Poker or other card games: 18%
- e5) Sports Betting: 23%
- e6) Roulette or other countertops games: 4%
Statistical Significant Differences between abstinent and relapsed groups Overview

1) Good relationship with psychologist  p= .003
2) Coping with feelings, thinking and behaviors  p= .008
3) Attending self-help groups (Gamblers Anonymous)  p= .008
4) Doing requested therapeutic exercises/tasks  p= .05
5) Having a job  p= .05
<table>
<thead>
<tr>
<th>Abstinent Group scored + on reasons to abstinence</th>
<th>Relapsed Group scored + on reasons to relapse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Good relation with psychotherapist.</td>
<td>1) No limit/access to Money</td>
</tr>
<tr>
<td>2) Psychotherapy attendance</td>
<td>2) No psychotherapy attendance</td>
</tr>
<tr>
<td>3) Family/spouse support</td>
<td>3) No total abstinence from money gambling</td>
</tr>
<tr>
<td>4) Psychotherapeutic tasks</td>
<td>(trying to manage betting/illusion of</td>
</tr>
<tr>
<td>5) Having a debt repayment plan</td>
<td>control)</td>
</tr>
<tr>
<td></td>
<td>4) No defined consequence if relapse</td>
</tr>
<tr>
<td></td>
<td>5) Marital conflicts</td>
</tr>
</tbody>
</table>
### CBT Results Overview

**Abstinent Group scored + on reasons to abstinence**

- 1) Coping with feelings/think/behaviors
- 2) Attending to psychotherapy sessions
- 3) Taking (prescribed) medication
- 4) Attending self-help groups

**Relapsed Group scored + on reasons to fail abstinence**

- 1) Anxiety/stress
- 2) Not attending to psychotherapy sessions
- 3) Difficulties in coping with feelings/think/behaviors
- 4) Not taking (prescribed) medication
- 5) Marketing and Accessibility/Diversity
- 6) Prize amount and fast delivery of
- 7) Return of obsession, self-criticism, shame
Both the abstinent and relapsed groups agreed mostly with both the TC Guidelines and treatment, as well as how important it was to follow them (and the reasons for relapses).

The results show that total abstinence from any type of gambling (with money) is a concept that is accepted by almost all patients, and a significant percentage of those who relapsed (34%) maintained their efforts towards avoiding betting and were now 3 months free of gambling.
Knowing what to do.... the focus becomes on how to manage it on their personal context.

• Most variables chosen by patients are on a personal development area but “external CT guidelines” may become the structure to better prepare/involve them in effective treatment changes.
DISCUSSION

• Informing and giving awareness to new patients about these results may be beneficial (i.e. relapses may start with demo play, trying to control betting, self-help groups).

• Working these guidelines (TC), treatment variables and beliefs/consequences of relapse with patients may be effective for treatment success and prevention of relapse. This may contribute to improved adhesion to treatment and a better prognosis.

• We saw some reasons (i.e. illusion of control, accessibility, prize amount why, although all patients understand and accept these variables, some of them relapse (according to their “own perspective”))
DISCUSSION

• These guidelines are characterized by being “easily” followed in patients’ daily lives, by being adaptable/negotiable, by having a direct impact on patients and their significant others in the process, and by enabling treatment success.

• Patients and their significant others know/accept the directions/boundaries to follow in treatment and may assess/adapt these different guidelines to their own situation and may function together with Motivational Interview strategies.

• “(…) need to adapt the therapy for those individuals at risk, placing greater emphasis on motivating patients(…)” Jiménez-Murcia (2015).
SUGGESTIONS

• More research in the field of “patients who relapsed but are now in abstinence” should be conducted in order to better understand the impact of treatment variables in: causes of relapse while in treatment; gains in motivation; changing factors, motivational interview, etc.

• More research concerning the Therapeutic Contract guidelines that may be predictors of treatment success should be conducted.

• Research on: How non-motivated patients may be attracted to treatment following TC guidelines and treatment goals (dropouts).
LIMITATIONS

• There was no control group.

• These self-questionnaires were mostly completed at the clinic but some were answered by phone or email.

• More focus should have been given to patients with prescribed (or unprescribed) medication.

• In the “relapsed but now with 3 or more months of abstinence” group (N=24), we subjectively chose that 3 months could already indicate a “commitment” to treatment, but we could not find any scientific literature to support this. Doubts may occur as to whether to include this group as in abstinence or relapsed. We included it in the abstinent group.
REFERENCES


• Lopes, H. (s.d.). Avaliação e calibração de três instrumentos de medição de dependência de jogo na população adulta portuguesa por via CATI: SOGS, DSM-IV e NORSC. Estudo de apoio à emissão de Parecer Técnico entregue pela República Portuguesa para o Tribunal das Comunidades Europeias em 2008. UCP-CESOP Universidade Católica Portuguesa (Manuscrito não publicado).


Thank you for your attention

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