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Impact of CBT based treatment and therapeutical contract on problem gambler treatment;
From external structure to internal change

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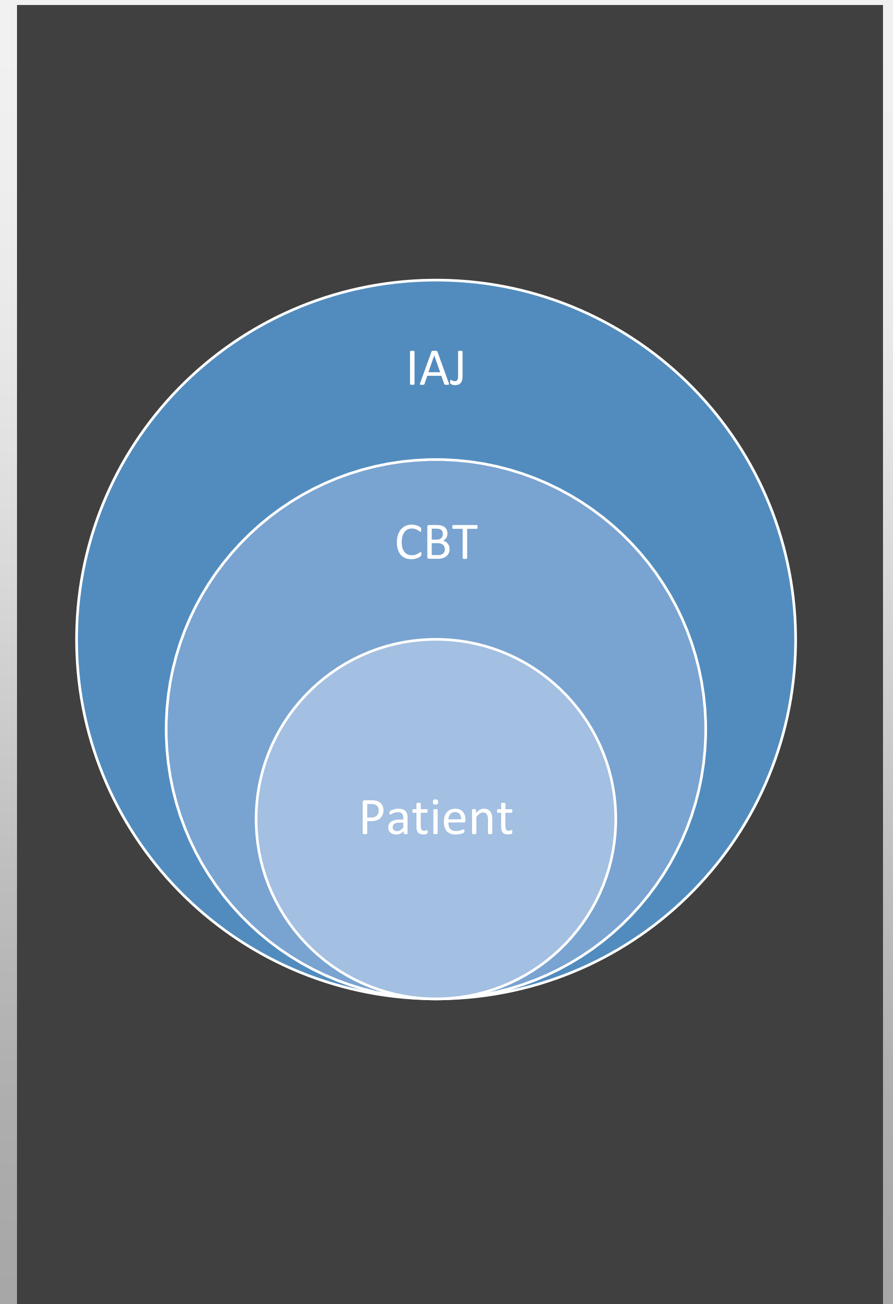

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BACKGROUND

STUDY AIM

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DISCUSSION

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BACKGROUND

- Gambling disorder (both online and offline) is a generalised public health problem with scarce treatment efficacy studies.

- 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) whether in at-risk or disordered gamblers (DG).

- 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 except for the previous one done by IAJ with a sample of 70 problem gamblers.

BACKGROUND

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Portugal: National prevalence by SICAD using SOGS

2012:

- Disordered gambling = 0,3% = (+- 24.000 ?)
- At-risk gambling = 0,3% = (+- 24.000 ?) Total = +- 48.000

2017

- Disordered gambling = 0,6% = (+- 48 000 ?)
- At-risk gambling = 1,2% = (+- 96 000 ?) Total = +- 144.000

2023

- Disordered gambling = 0,5% = (+- 48 000 ?)
- At-risk gambling = 1,3% = (+- 96 000 ?) Total = +- 144.000

- 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).
- Covid pandemics contributed to the rise of persons gambling and to the rise of PG but treatment possibilities/facilities(on/offline) didn’t augment in the same proportion. One more reason for rising treatment efficacy levels.
- We have little evidence of what works in Portugal.

BACKGROUND

- The Portuguese Gambler Support Institute (IAJ) is a private and independent organization centered on problem gambling treatment, helplines, 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).
- This study is ongoing, produced voluntarily be IAJ psychologists (4) and Nottingham Trent University (1) without any funding and we expect to have final data by the end of 2024.

STUDY AIM

This study aims to test the efficacy of a:

- (CBT) Cognitive Behavioral Therapy combined with
- (TC) an initial therapeutical contract with variables like; gambling abstinence, self-exclusion, limited access to money, psychotherapy sessions for problem gambler and significant others, Gamblers Anonymous attendance, therapeutical exercises, pre-determined consequences if relapse, among others
- (PG) in a Portuguese outpatient treatment center for Problem Gamblers and trying to better establish a
- (RPP)Relapse Prevention Program

METHOD

Procedure: The 37 participants were voluntarily recruited by the IAJ and fulfill an:

A) evaluation protocol/questionnaire before the CBT/TC intervention right after the first session (**moment 1**) and

B) the second evaluation after the intervention (12 to 20 sessions (15) - **moment 2**) .

This is agreed and embodied in a Therapeutic Contract during their first session.

- Exclusion factors: Having: less than 18, severe psychiatric disorder, done previous treatments in IAJ, having less than 12, or more than 20, sessions.

METHOD

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During treatment, the central focus was on the following:

a)Therapeutic Contract + for client and family

b) CBT, (integrative/eclectic),

- Session 1-3: strategies regarding relationships with significant others, life and gambling history, beliefs and cognitive distortions, behavior and patterns of gambling, triggers, coping with urges,
- Session 4-7: life skills development like: assertiveness, decision making, management of stress and emotions communication, building support network, pre-symptoms of relapse,
- Session 8-12: patterns of behaviors, feelings, values and general positive vs negative beliefs, awareness, adopt new perspectives and attitudes,
- 12 and more: abstinence maintenance trough working life skills, relapse prevention, goals, relaxation techniques, family sessions, coping with personality traits,

METHOD

Therapeutic Contract for 6 months **Goals/Guidelines**

	Yes	No	Maybe
1) Perform and comply with a debt repayment plan			
2) Total abstinence from any kind of (money) gambling			
3) Avoid people, places and situations related to gambling			
4) Self-exclusion from physical or virtual gambling (facilities/sites)			
5) Limit/control access to money/cards/checks, etc.			
6) Having significant others/family involved in the treatment			
7) Participate in individual and group psychotherapy sessions			
8) Read and write suggested therapeutic exercises			
9) Participate in meetings of self-help groups (Gamblers Anonymous groups)			
10) Exercise regularly (at least 3 x week)			

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, nor having the mobile, etc.

1)____

2)____

3)____

Signature:_____________________

Date:_______________

External breaks while building the internal ones

Sample Characterization

Participants – 37
Age: 33,8
SD – 12,984
Min -19; Max – 70;

Descriptive statistics	Frquency	Percent%
Gender Male	30	85,7%
Female	5	14,3%
Employed	24	68,6%
Unemployed	11	31,4%
Education less than 10-12 years (no license)*	19	63,3%
more than 10-12 years (license or more)*	11	36,7%

* 7 missing values

Sample Characterization

Participants – 37
Age: 33,8
SD – 12,984
Min -19; Max – 70;

Gambling Mode	Frquency	Percent%
Online	22	59,5%
Offline	4	10,8%
Mix Mode (Online & Offline)	11	29,7%

Sample Characterization

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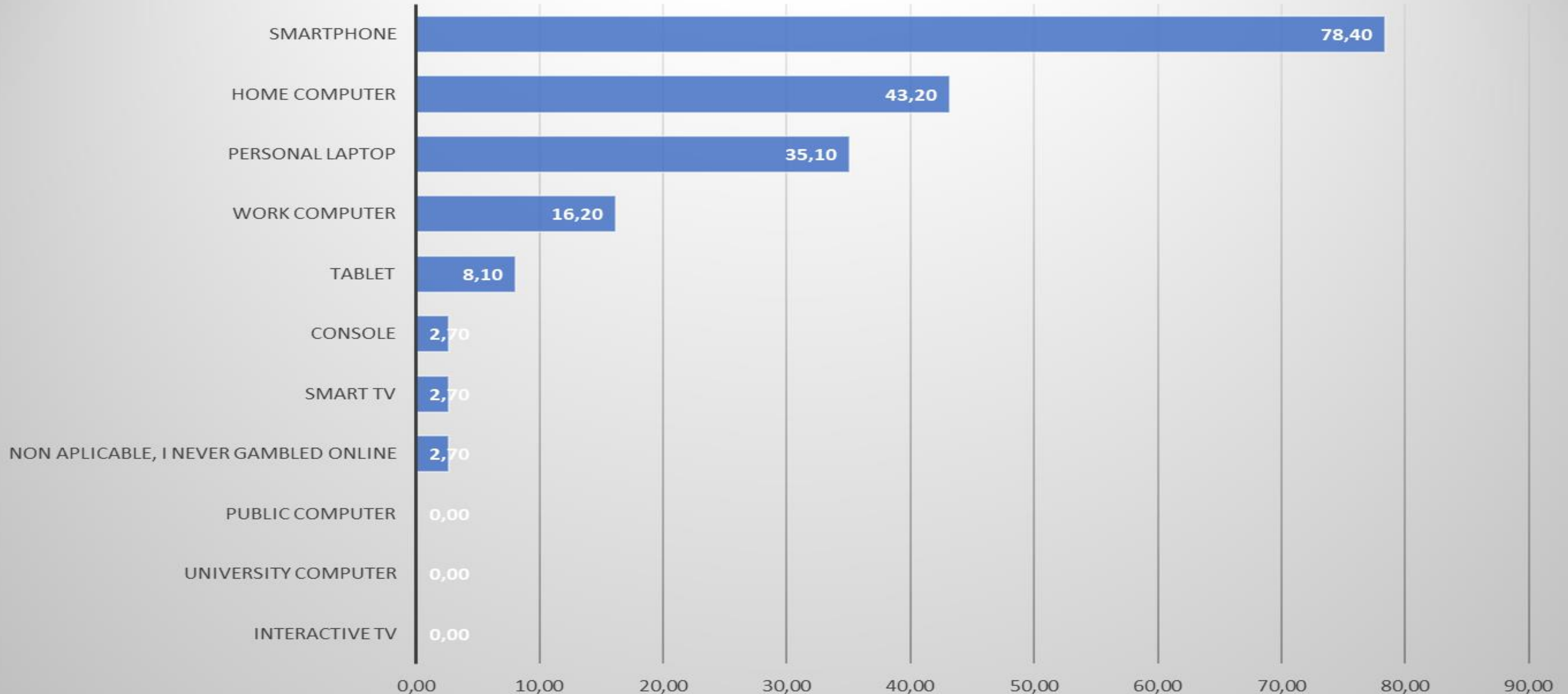

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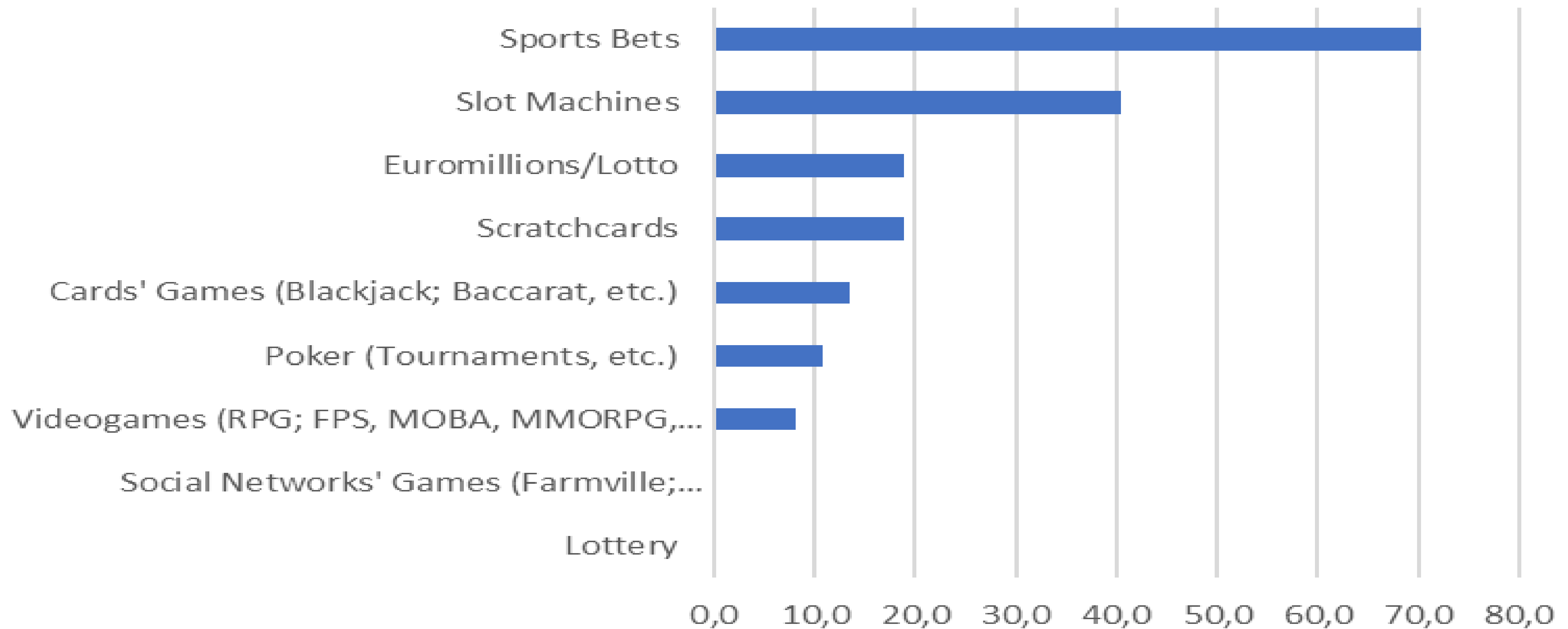

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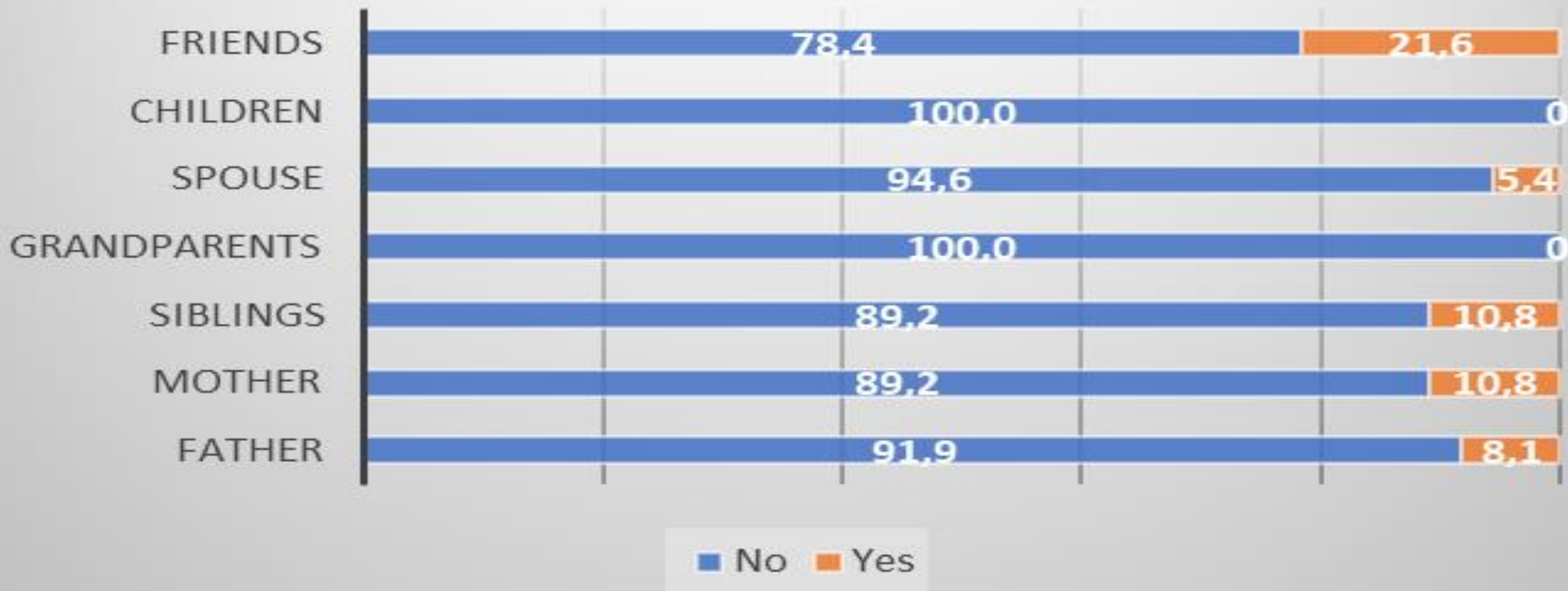


METHOD

Instruments:

1- The evaluation protocol: Sociodemographic and Gambling Behavior Questionnaire (Hubert, 2015);
2- Therapeutic Goals Contract (Hubert, 2010)

3) SOGS (Lesieur & Blume, 1987) + DSM-5 (APA,2013) for disorder gambling

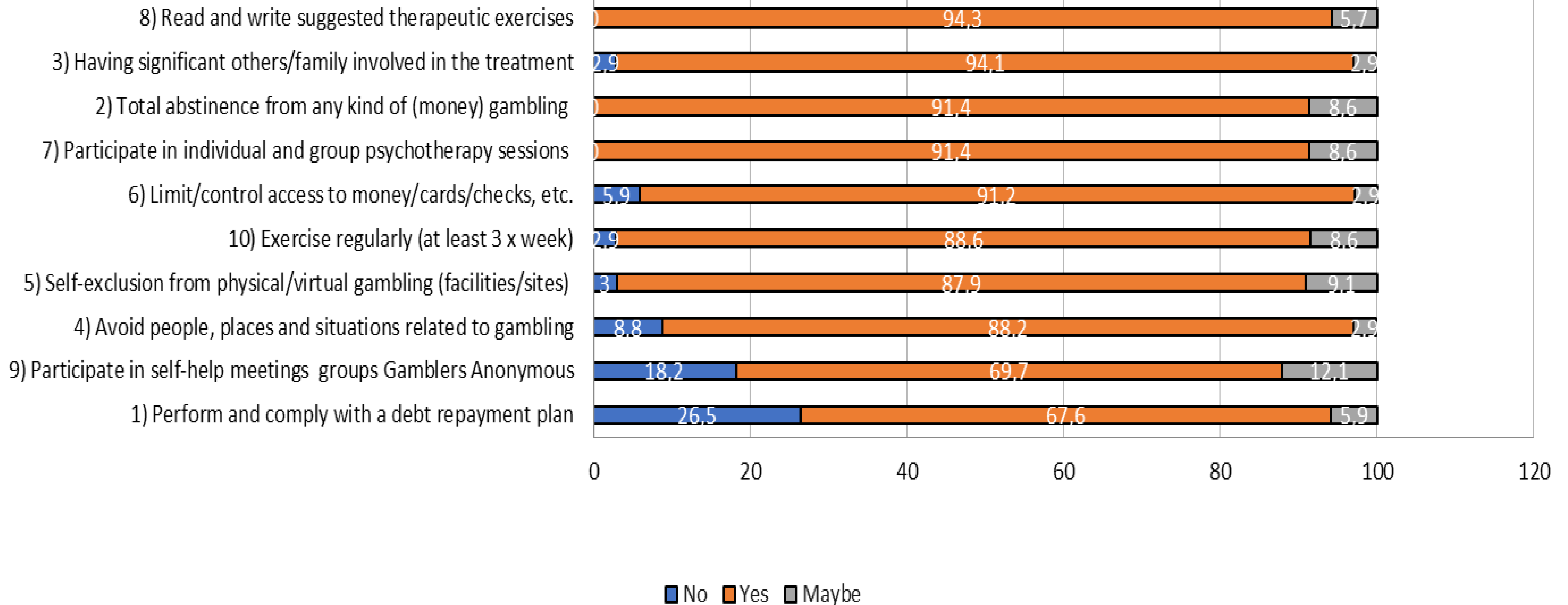
4) BSI The Brief Symptom Inventory, short version of the SCL-R-90 (Derogatis, 1977) covering wide diversity of symptoms,
5) BIS – The Barratt Impulsiveness Scale (BIS-11; Patton et al., 1995) designed to measure impulsivity,
6) WHOQOL-BREF - a shorter version of the WHOQOL-100 developed by the World Health Organisation covering four domains for quality of life: Physical health, Psychological, Social relationships and Environment,
7) EPQ-R short scale- The Eysenck Personality Questionnaire- Revised Short Scale is a 48 item-self-report questionnaire. The Portuguese version (Almiro, P.A. & Simões, M. R., 2013) is composed by 70 items and contains a fourth dimension, measuring Lie/Social Desirability scale (L), and

8) EDS 20 (Simões, Almiro & Sousa, 2014) is an unidimensional social desirability scale, with 20 items.

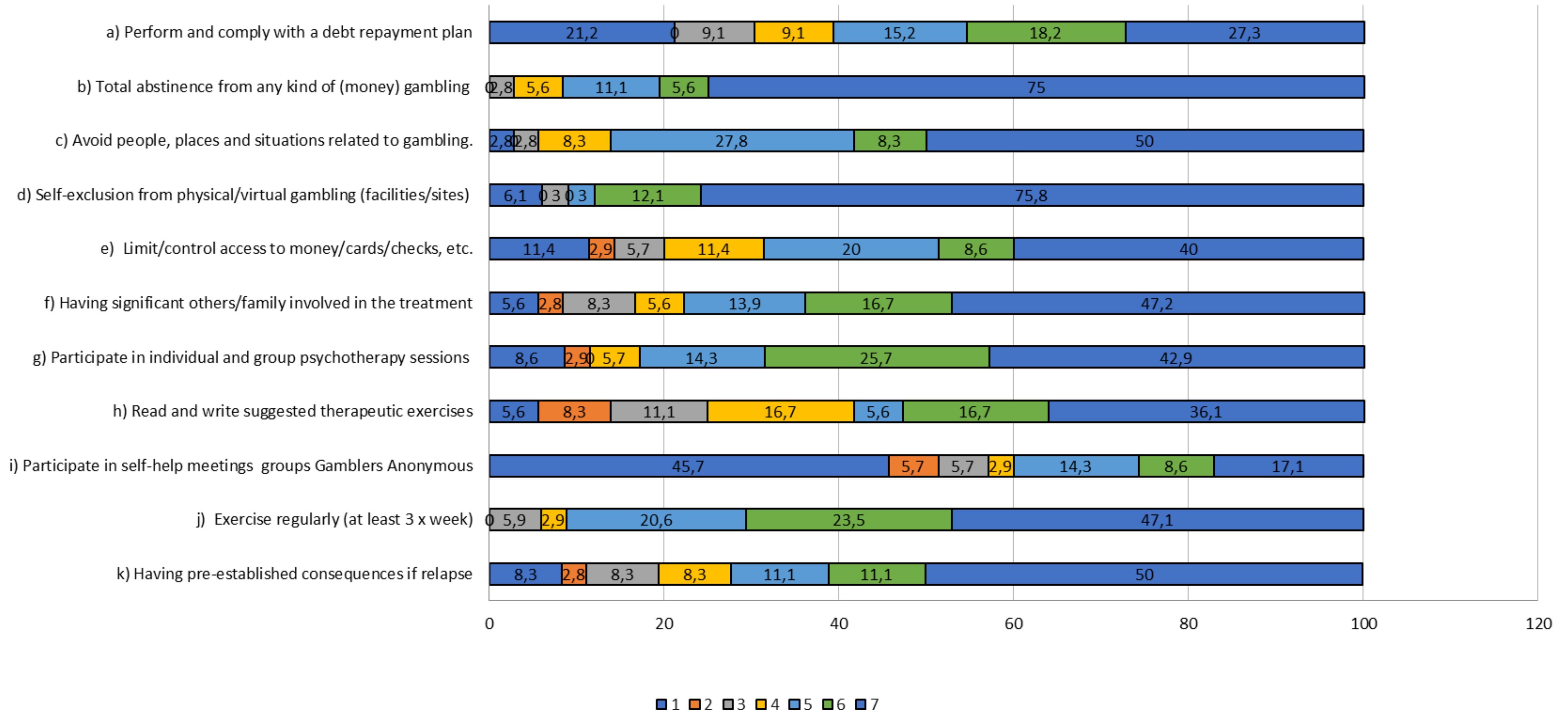
Results: Abstinents vs relapsed

- Average number of psychotherapy sessions = 15,92
- Total abstinence from gambling = 29 (80,6%)
- Relapsed = 7 (19,4%) and kept coming to sessions…
- Good results but nevertheless the sample is still too small to establish conclusions and we know how volatile abstinence vs relapse can be.

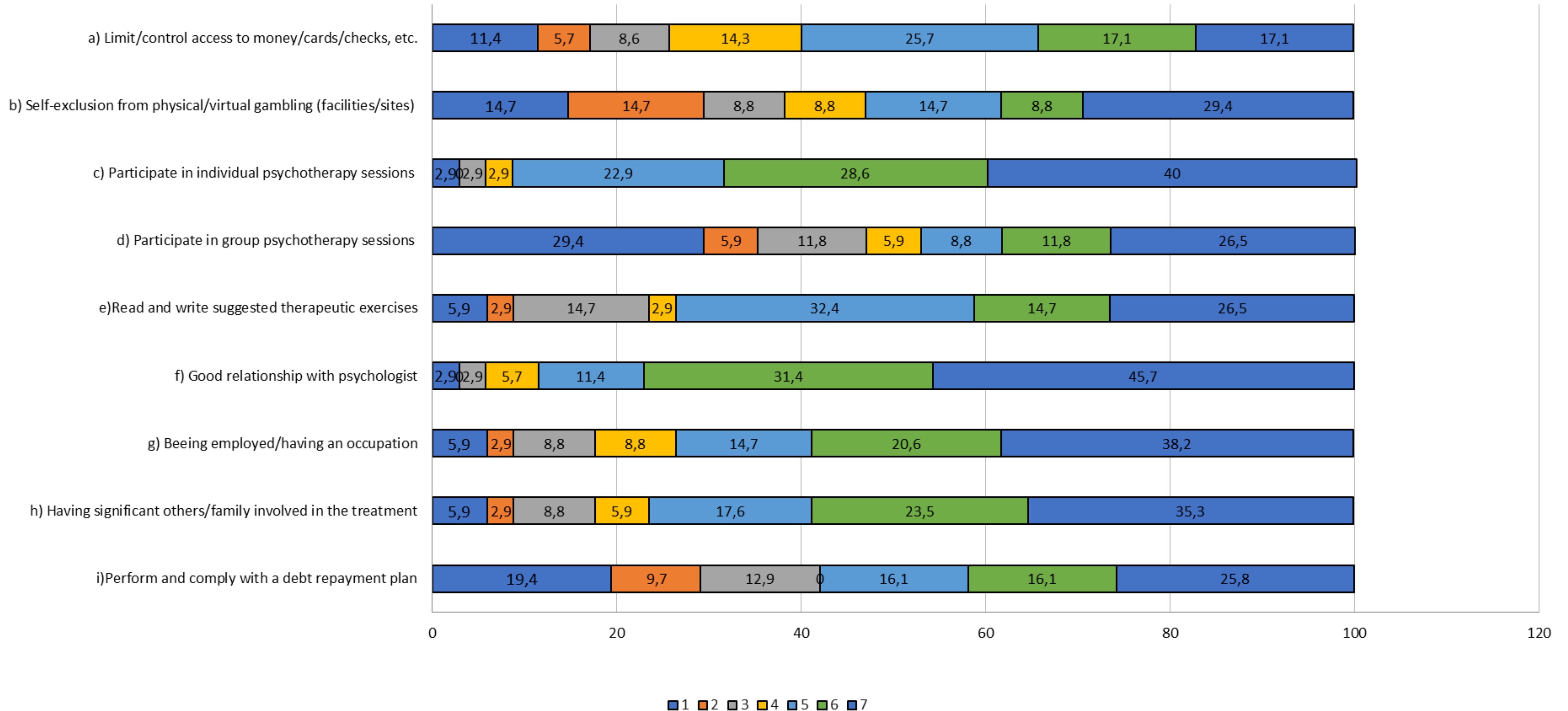
Therapeutic Contract Agreement



During the treatment, how do you rate your commitment to the previous suggestions of TC in %



What was more beneficial to your treatment?



Therapeutical Contract (Moment 1) correlation treatment impact (Moment 2)

Therapeutical Contract Moment 1	Correlation	Impact of treatment Moment 2
Agreed to total abstinence	with	Problems with alcohol p=.040*;R=.467
	with	Drugs p=.000***;R=.792
	with	Addictive behaviours P=,000***;R= .792
	with	Depression p=,026*;R=,523
	with	Peer pressure to relapse p=.005**;R=.619
	with	Legislation that facilitates gambling P=.034*;R=488
	with	Culture that facilitates playing p=.048*;R=.459
	with	Willingness to play EuroMillions p=,000***;R=1
	with	Willingness to play scratchcards p=,000***;R=1
Agreed to join Gamblers Anonymous	with	Difficulties with parents in treatment p=.011*;R=.602
	with	Participate in group therapy P=.041*;R= .500

Therapeutical Contract (Moment 2) correlation treatment impact (Moment 2)

Avoided people, places and situations	with	Difficulties in the profession p=,014*;R= (-.614)
	with	Difficulties with tobacco p=,043*;R=.0446
	with	Need for medication p=,012;*R=, (-551)
	with	Positive to have done physical exercise p=,021*;R=.448
	with	Having practiced hobbies p=,007**;R=.555
	with	Pressure with games like slots p=,034*;R= (-634),
	with	Pressure with games like poker p=,024*,;R= (-775)
	with	Pressure with games like roulette p=,024*,;R= (-775)
have been in abstinence	with	Frequency of Anonymous Gamblers P=.019*;R=.519
Had a relapse	with	Difficulties in facing others P=.000***;R=.979
	with	Feel frustration p=.041*;R=.728
	with	Willingness to play EuroMillions p=,000***;R=1
	with	Willingness to play scratch cards p=,000***;R=1

Therapeutic Contract (Moment 2) correlated with treatment impact (Moment 2)

Have limited access to cash/money	with	Been positive to have less access to money p=;015*;R=.448
	with	Have made/fulfilled debt plan p=,047*;R=.448
	with	Have solved financial problems p=, 016*;R=,543
Having had significant others in treatment	with	(not) having children p=.008**;R=(-657)
	with	Having complied with rules P=.030*; R=.453
	with	Having practiced hobbies P=.024*;R=.479
	with	Have maintained good relationship with psychologist P=.039*;R=.453
	with	Have solved financial problems P=.050*;R=.543
Attended Gamblers Anonymous	with	Attended group therapy P=.002**;R=.642
	with	Attended Gamblers Anonymous P=,000***;R=,771
	with	Gamblers Anonymous useful as relapse prevention P=.000***;R=.896
	with	Legislation that facilitates gambling P=.033*;R=.491
	with	Tobacco problems P=.009**;R=.566

BSI - Brief Symptom Inventory, SCL-R-90 short version

Variable - Normative Value	Moment 1	Moment 2	Sig. P
Interpersonal Sensitivity	M=1,40; DP=0,83	M=0,81;DP=0,81	0.001**
Depression	M=1,73; DP=0,99	M=0,78;DP=0,98	0,000***
Anxiety	M=1,19; DP=0,85	M=0,72; DP=0,88	0,024*
Psychoticism	M=1,26; DP=0,93	M=0,69;DP=1,03	0,006**
Obsessive Compulsive	M=1,41; DP=0,82	M=0,96;DP=1,00	0,021*

- **Interpersonal Sensitivity** - Feelings of personal inadequacy and inferiority in comparison with others, self depreciation, shyness.
- **Depression** - Symptoms of dysphoric mood and affect, lack of motivation and loss of interest in life.
- **Anxiety** - Nervousness and tension, apprehensiveness, panic attacks and feelings of terror, generalized anxiety.
- **Psychoticism** - Withdrawn, isolated, schizoid lifestyle as well as first rank symptoms of schizophrenia such as thought control.
- **Obsessive Compulsive** – Impulsive and persistent behaviors/cognitions that one can't resist,

BIS – Barratt Impulsivity Scale

Variable - Normative Value	Moment 1	Moment 2	Sig. P
Unplanned Impulsivity	M=29,65; DP=3,20	M=27,32;DP=3,77	0.00***
Attentional Impulsivity	M=17,56; DP=3,41	M=17,14;DP=4,23	0,517
Motor Impulsivity	M=23,00; DP=3,98	M=21,93; DP=4,01	0,259

World Health Organization- Quality of Life Assessment

WHOQOL-BREF	Variable - Normative Value	Moment 1	Moment 2	Sig. P
Quality of life assessment (WHOQOL)	Physical domain- M=77,49;DP=12,27	M=25,77; DP=5,08	M=**28,71** DP=4,20	0,002**
	Psychological domain M=72,38;DP=13,5	M=18,27; DP=4,40	M=**21,38** DP=3,88	0,000***
	Social relationships M=70,42;DP=14,54	M=9,89; DP=2,89	M=**10,69** DP=2,94	0,029*
	Environmental M=64,89;DP=12,24	M=29,83; DP=5,47	M=**31,58** DP=4,61	0,033*

- **Physical Domain** refers to: pain/discomfort; energy/fatigue; sleep/rest, mobility; daily activity; medication or treatment dependency; and work capacity.
- **Psychological domain** refers to: self-image; negative thoughts; positive attitudes; self-esteem; mentality; learning ability; memory concentration; religion and the mental status.
- **Social relationships**: personal relationships, social support, sexual activity.
- **Environmental**: Physical security; home stability; economic resources; health and social care; opportunities to acquire information and skills; recreation and leisure; environment (pollution, noise, etc.) and transportation.

Discussion and Therapeutical Contract

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- Sample is too small at this moment to be able to compare abstinent and relapse group although we can figure some future directions as…
- CT (mom1) variables like; total abstinence, self exclusion, avoiding "dangerous" situations, doing therapy (and others) are variables/concepts that are accepted by almost all patients, (breaking denial and preparing motivational interview)

…..When clients and significant others, know what to do (awareness)…. the focus becomes on "***how***" to manage/proceed to achieve it, on their personal context, and it helps to the "***involvement/motivation***" shown by the reported adhesion and positive impact to the different variables of CT in moment 2, with CBT approach help

Discussion and Correlations

Correlations show significant therapeutical directions to better explore as sample will get larger:

Exemples:

a) Agreement to total abstinence related to severity of gambling, other comorbidities and cravings

b) Those that avoided most people places and situations felt more cravings, difficulties in their profession, with tobacco and felt need for medication,

c) Those who had significant others participation in treatment practiced more hobbies, followed more rules, solved financial problems and maintained good relationship with psychologist.

Discussion Symptomatology

CBT+ CT treatment seems to be effective as :

- anxiety and depression had significant improvement, (less catastrophic thoughts and less self criticism)
- as well as the interpersonal sensitivity scale that also often refers to the guilt and shame that problem gamblers feel,
- or also withdrawn, intense cognitive distortions and feeling isolated in the psychoticism scale that diminished.
- One of the biggest goals achieved in this gambling disorder treatment is the reduction of obsessive and compulsive thoughts and behaviors not only in gambling but in life in general

Discussion Quality of Life 1

- The increase in life quality (the best relapse prevention…) seems also to be confirmed by various domains of the WHOQOL- BREF that refers to :

- 1) Psychological domain: improvement in self-esteem, self-image and positive attitude, as well as diminution concerning negative thoughts.

- 2) Physical domain: pain, rest, energy, work, positive thoughts are fundamental areas during first weeks of treatment adherence.

- 3) Social relationships and support are essential as isolation, loneliness and self-centeredness must be delt with the help of others net (family, friends, support group peers, etc.)

Discussion Quality of Life 2

4) Environmental deals with security, health and social care, leisure, home stability may give the necessary equilibrium and references that may allow change + recovery processes + abstinence and personal development.

These relates to known characteristics/attitudes/feelings of Problem Gamblers as Impulsivity, Restlessness, Susceptibility to boredom, Competitiveness, Depression, Loneliness (American Psychiatric Association, 2013) and others like sensation seeking, cognitive distortions, gratification delay, defiance, poor feelings/emotions management, …

Clear and organized treatment start for both significant others and problem gambler associated with motivational interview techniques seem to assure continuity/stability into the psychotherapy necessary changes.

An "external structure/break" in order to allow "internal change/development"

Conclusion

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- From this data, it seems that cognitive behavioral strategies, and the agreement of a therapeutic contract are effective strategies that need to be incorporated in the treatment of problematic gambling, however, there are some aspects of the contract that seems more effective than others, and that more people seem to adhere better.

- The findings suggests that this intervention was effective in promoting stability, psychological adjustment, and in improving quality of life.

- The findings of this study stress the importance of conducting further research on the efficacy of interventions in the treatment of problematic gambling among adults.

- Although these studies can be costly and time consuming, they generate very relevant insights that could be very useful in informing the design of future treatments"

SUGGESTIONS

- More focus on the reasons for relapses.
- 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).
- More longitudinal research with different evaluation’s moments 15-20 sessions, 35-40, more than 60 or 6 months 12 months, 24 months.

LIMITATIONS

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- These were self report questionnaires
- More focus should have been given to patients with prescribed (or unprescribed) medication.
- Reduced N in the sample

Thank You, for your attention!

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