Efficacy of a randomized controlled trial of Integrative Couple Treatment for Pathological Gambling/ ICT-PG: 18 month follow-up

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Context

- Despite the many consequences of gambling on quality of couple relationship, most therapies for problem gambling favour an individual approach.

- The efficacy of couple treatments where one of the members has problems with alcohol or illegal drug use has been clearly demonstrated with regard to the reduction and cessation of substance use as well as the improvement of the couple relationship.

- Some innovative research points to the potential of Couple treatment for gambling problems (Lee, 2002; Lee, 2009, 2014, 2015; Lee & Aosoga, 2015)

- Inspired by the McCrady & Epstein Alcohol Behavioral Couple Therapy (ABCT), our team developed the Integrative Couple Treatment for Pathological Gambling (ICT-PG) (Tremblay et al. 2015)

Integrative Couple Treatment for Pathological Gambling (ICT-PG)

Treatment objectives

- Reduce or stop gambling-related behaviours.
- Reduce psychological distress and improve the well-being of both partners;
- Increase relationship satisfaction and mutual support between partners

Clinical process

- ≈ 45-60 min. with gambler
  - Partner expresses her point of view, while maintaining the focus on the gambling behaviours
- ≈ 30-45 min. relationship aspects
  - Mutual positive reinforcement
  - Communication and negotiation skills
  - Partner's behaviours that facilitate gambling and those that reinforce its cessation.

	Gambler	Partner	Couple
1 & 2	• Hear the request • Listen to what is expected from each person • General objectives of sessions • Verify recent gambling behaviour • Stop draining money • Rules/expectations from participants • Feedback (evaluation, admission) • Functional analysis of gambling behaviour or at-risk situations	• Hear the request • What is expected from each person • General objectives of sessions • Feedback (evaluation, admission)	• Mutual reinforcement
3	• Clinical work related to gambling		• Mutual reinforcement
4	• Clinical work related to gambling		• Communication skills
5	• Clinical work related to gambling		• Communication skills
6	• Clinical work related to gambling	• Stop reinforcement of gambling situations	
7	• Clinical work related to gambling	• Stop reinforcement of gambling situations	• Reinforcement of non-gambling situations
8	• Clinical work related to gambling • Prevent relapse/at-risk situations		• Reinforcement of non-gambling situations
9 to 12	Sessions 9 to 12 are merely an extension of previous sessions. The therapist spend more time on any given aspect.		

METHOD

Recruitment

- Participants recruited in nine Addiction Specialized Treatment Centers (Quebec province, Canada)

- Recruitment period: 47 months
  - March 2011 to April 2013
  - October 2014 to June 2016

Assessed for eligibility (*n* = 98 couples)

Excluded (*n* = 18 couples)
- 4 couples – Low commitment towards relathionship
- 3 couples – Severe violence – 12 last months
- 3 couples – Problematic substance use – gambler
- 2 couples – Gambling habits at low risk – gambler
- 2 couples – Mental health problems (serious and unstable) – partner
- 1 couple –   Problematic alcohol use – gambler
- 1 couple –   Problematic gambling habits – partner (DSM-V diagnosis of GUD)
- 1 couple –   Cohabitation < 1 year
- 1 couple –   Refused orientation

Participants randomized (*n* = 80 couples)

Individual treatment (*n* = 36)

Potential follow-ups: 72 individuals
3 months post-admission, *n* = 60 (83.3%)
9 months post-admission, *n* = 53 (73.6%)
18 months post-admission, *n* = 42 (58.3%)

Total follow-ups
155/216 (71.7%)

ICT-PG (*n* = 44)

Potential follow-ups: 88 individuals
3 months post-admission, *n* = 82 (93.2%)
9 months post-admission , *n* = 76 (86.4%)
18 months post-admission , *n* = 70 (79.5%)

Total follow-ups
228/264 (86.3%)

Equivalence of groups on stratification criteria

	Individual n (%)	ICT-PG n (%)	p values – $\chi 2$
Male	29 (80,6)	31 (70,5)	
Female	7 (19,4)	13 (29,5)	n.s.
Mental health problems			
Presence	28 (77,8)	32 (72,7)	
Absence	8 (22,2)	12 (27,3)	n.s.
Gambling – Partner			
At-Risk	0 (0)	3 (6,8)	
Not At-Risk	36 (100)	41 (93,2)	n.s.
Alcohol – Gambler			
At-Risk	6 (16,7)	9 (20,5)	
Not At-Risk	30 (83,3)	35 (79,5)	n.s.

Equivalence of groups on other variables

	Individual treatment		ICT-PG	
	Gamblers *n* (%)	Partners *n* (%)	Gamblers *n* (%)	Partners *n* (%)
Age	*M* = 40.8 (SD = 12.3)	*M* = 39.6 (SD = 13.8)	*M* = 42.2 (SD = 13.5)	*M* = 42.2 (SD = 13.4)
20-29	8 (22.2)	13 (36.1)	10 (22.7)	9 (20.5)
30-39	10 (27.8)	5 (13.9)	10 (22.7)	10 (22.7)
40-49	9 (25.2)	9 (25.2)	12 (27.2)	13 (29.5)
50-59	6 (16.6)	6 (16.6)	7 (15.9)	8 (18.2)
60 +	3 (8.3)	3 (8.3)	5 (11.4)	4 (9.1)
Annual Income				
Under of $25 000	10 (27.8)	13 (36.1)	14 (31.8)	15 (34.1)
$25 001 – $60 000	17 (47.3)	17 (47.2)	19 (43.2)	20 (45.5)
$60 001 - $100 000	8 (22.2)	4 (11.1)	9 (20.5)	7 (15.9)
$100 000 and over	-	-	1 (2.3)	2 (4.5)
Missing	1 (2.8)	2 (5.6)	1 (2.3)	-
Annual Income	**Couple (reported by the gambler)**		**Couple (reported by the gambler)**	
Under of $25 000	5 (13.9)		3 (6.8)	
$25 001 – $60 000	12 (33.3)		16 (36.4)	
$60 001 - $100 000	13 (36.1)		13 (29.5)	
$100 000 and over	5 (13.9)		11 (25.0)	
Missing	1 (2.8)		1 (2.3)	

Chi square test & T-test = n.s.

Types of services gamblers received (Period covered: Admission to 18 months)

Type of service	Individual (n = 36) M (SD) n with 0 sessions (%)	ICT-PG (n = 44) M (SD) n with 0 sessions (%)	Total (n = 80) M (SD) Min – Max
Individual & Evaluation	8.14 (6.6) 1 (2.8%)	0.93 (2.1) 32 (72.7%)	4.18 (5.9) 1 – 24
Couple	1.14 (2.9) 25 (69.4%)	10.02 (6.1) 2 (4.5%)	6.03 (6.6) 0 – 37
Group	0.94 (2.9) 32 (88.9%)	0.00 (0.00) 44 (100%)	0.43 (2.0) 3 – 13
Total (ind. + couple + gr.)	10.22 (8.4) 0	10,91 (6.8) 1 (2.3%)	10.60 (7.5) 1 - 37
Phone Intervention	1.42 (2.5) 21 (58.3%)	0,70 (1.4) 30 (68.2%)	1.03 (2.0) 1 - 12
No Show at a session	1.64 (2.8) 19 (52.8%)	1.61 (2.5) 27 (61.4%)	1.63 (2.6) 1 – 11

Annotations: 30% received a few couple sessions; 27% received a few ind. sessions; = (between Total Individual 10.22 and Total ICT-PG 10,91)

P<0,0001****; P<0,001***; P<0,01**; P<0,05*; P<0,10£

Types of services partners received (Period covered: Admission to 18 months)

Type of service =	Individual (*n* = 36) *M* (SD) *n* with 0 sessions (%)	ICT-PG (*n* = 44) *M* (SD) *n* with 0 sessions (%)	Total (*n* = 80) *M* (SD) Min – Max
Individual & Evaluation	0.64 (2.1) 27 (75.0%)	0.64 (3.0) 36 (81.8%)	0.64 (2.6) 1 - 20
Couple	1.14 (2.9) 25 (69.4%)	10.05 (6.1) 2 (4.5%)	6.04 (6.6) 0 – 37
Group	0.83 (2.3) 31 (86.1%)	0.20 (1.4) 43 (97.7%)	0.49 (1.9) 3 – 10
Total (ind. + couple + gr.)	2.61 (5.3) 16 (44.4%)	10.9 (7.3) 2 (4.5%)	7.16 (7.7) 1 – 37
Phone Intervention	0.17 (0.6) 33 (91.7%)	0.55 (1.5) 34 (77.3%)	0.38 (1.2) 1 - 8
No Show at a session	0.19 (0.5) 30 (83.3%)	1.27 (2.1) 28 (63.6%)	0.79 (1.7) 1 – 7

18% received a few ind. sessions

≠

56% received no services

P<0,0001****; P<0,001***; P<0,01**; P<0,05*; P<0,10£

Assessment

Gambling habits
- Only for the gamblers:
  - Gambling Symptom Assessment Scale (G-SAS) (Kim, Grant, Potenza, Blanco, & Hollander, 2009), last 7 days;
  - Impaired Control Over Gambling (ICOG), (Baron & Dickerson, 1994), last 3 months;
  - Canadian Problem Gambling Index (CPGI) (Ferris & Wynne, 2001), last 3 months;
  - Detection of the Need for Help Gambling (DÉBA-Jeu), (Tremblay & Blanchette-Martin, 2009), last 3 months;
- For the gamblers and their partner:
  - Gambling related beliefs inventory (Ladouceur, Jacques, Giroux, & Sévigny, 2004).

Couple functionning (for the gamblers and their partner):
- Dyadic Adjustment Scale (DAS-4), (Sabourin, Valois, & Lussier, 2005), last 3 months;
- Marital Status Inventory (MSI), (Weiss & Cerreto, 1980), last 3 months;
- Couples Support Questionnaire, (Brassard, Houde, & Lussier, 2011), last 3 months;
- Interpersonal Communication Skills Inventory Self-Spouse, (Boyd & Roach, 1977), last 3 months;
- Marital Problem Solving Scale (MPSS), (Baugh, Avery, & Sheets-Haworth, 1982), last 3 months.

Individual (for the gamblers and their partner):
- Center for Epidemiologic Studies Depression scale (CES-D), (Radloff, 1977), last 7 days;
- Psychiatric symptom index, (Ilfeld, 1976), last 7 days.

RESULTS

Number of persons at each follow-up

Gamblers	Individual n	ICT-PG n
T1 **Admission**	36	44
T2 **3 months**	30	41
T3 **9 months**	26	38
T4 **18 months**	22	35

Partners	Individual n	ICT-PG n
T1 **Admission**	36	44
T2 **3 months**	30	41
T3 **9 months**	27	38
T4 **18 months**	20	35
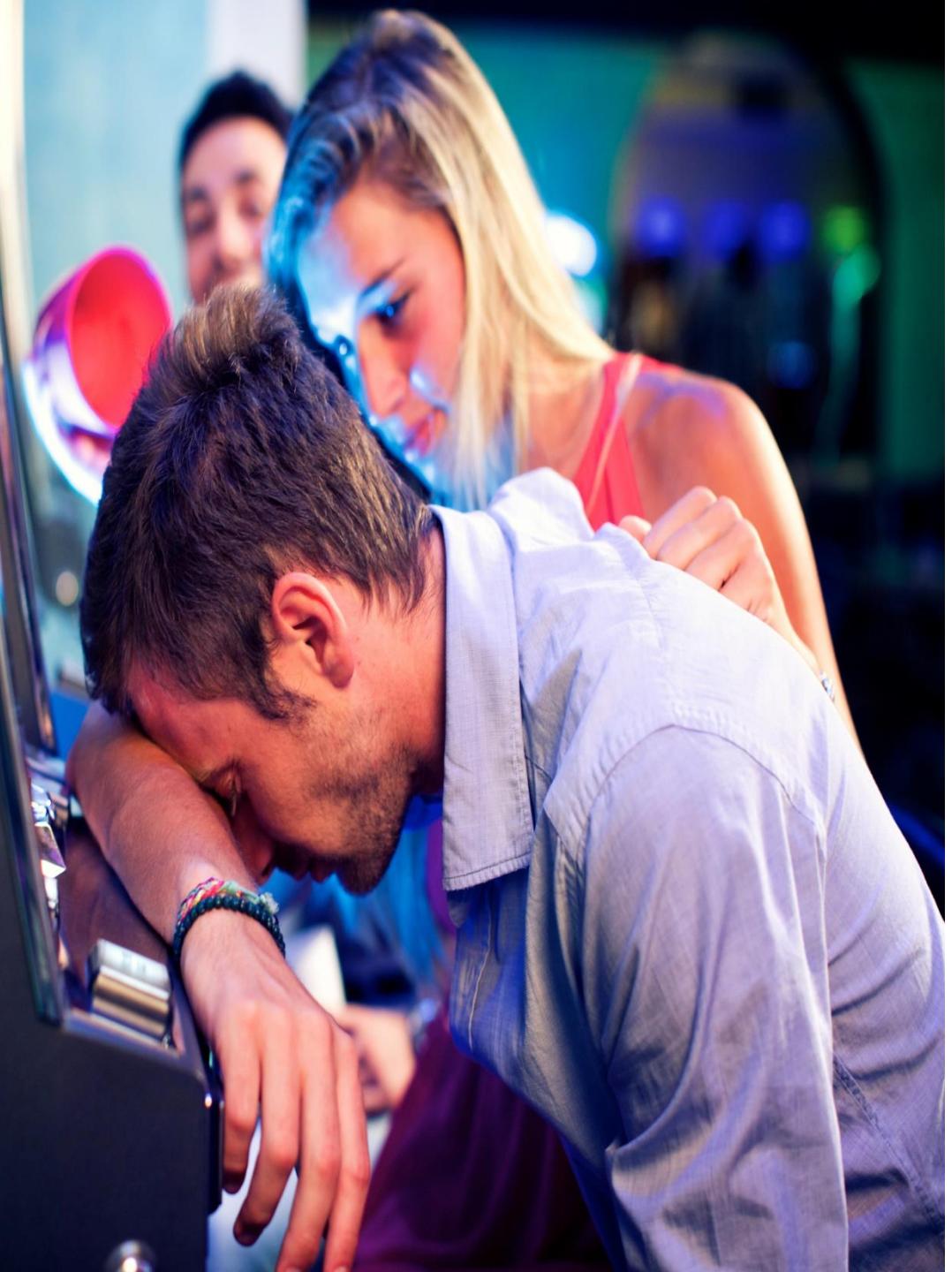
Gambling habits

Gambling Symptom Assessment Scale (G-SAS)

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	16,66 (1,20)[abc]	18,52 (1,08)[abc]	n.s.
T2	12,39 (1,31)[a]	6,85 (1,14)[a]	**
T3	11,08 (1,44)[b]	4,30 (1,17)[b]	***
T4	10,80 (1,53)[c]	4,01 (1,21)[c]	***
Tot	13,17	8,77	****

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Kim, Grant, Potenza, Blanco, & Hollander, 2009)
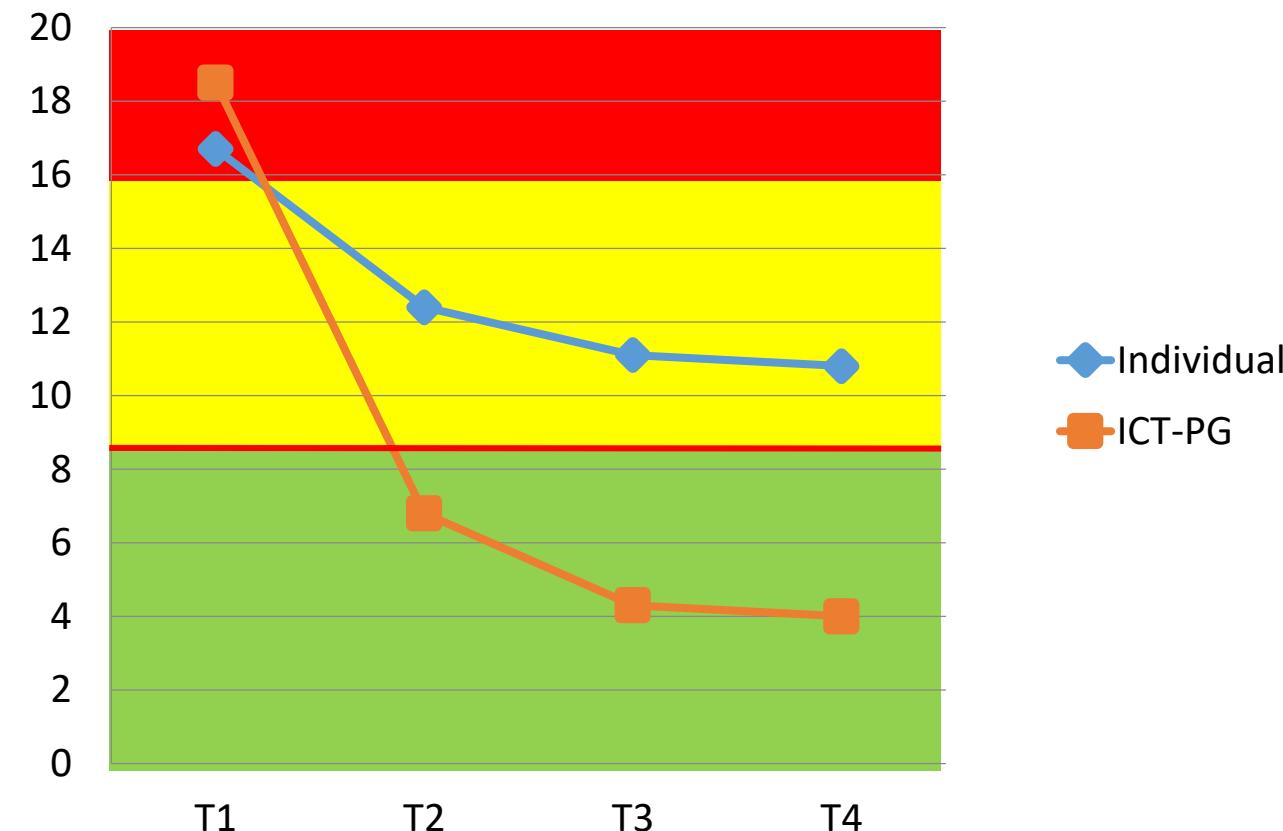
Impaired control over gambling (ICOG)

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	37,92 (1,44)[abc]	35,95 (1,29)[abc]	n.s.
T2	22,31 (1,58)[a]	17,89 (1,34)[a]	*
T3	20,59 (1,69)[b]	16,11 (1,41)[b]	*
T4	18,26 (1,86)[c]	15,69 (1,45)[c]	n.s.
Tot	25,89	21,85	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Baron & Dickerson, 1994)
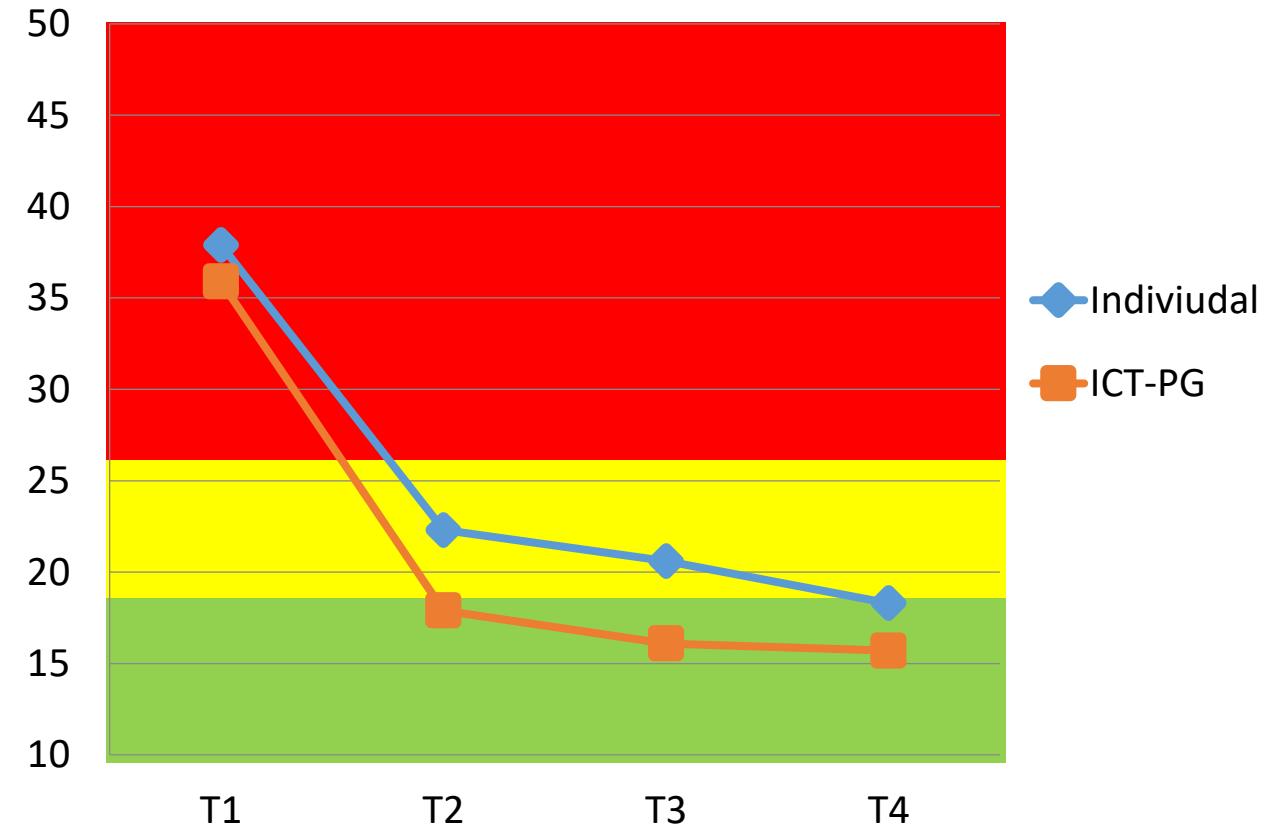
Canadian Problem Gambling Index (CPGI)

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	15,68 (0,82)[abc]	14,85 (0,74)[abc]	n.s.
T2	6,97 (0,89)[a]	5,86 (0,77)[a]	n.s.
T3	5,31 (0,97)[b]	3,98 (0,80)[b]	n.s.
T4	4,91 (1,08)[c]	4,26 (0,83)[c]	n.s.
Tot	8,91	7,43	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Ferris & Wynne, 2001)
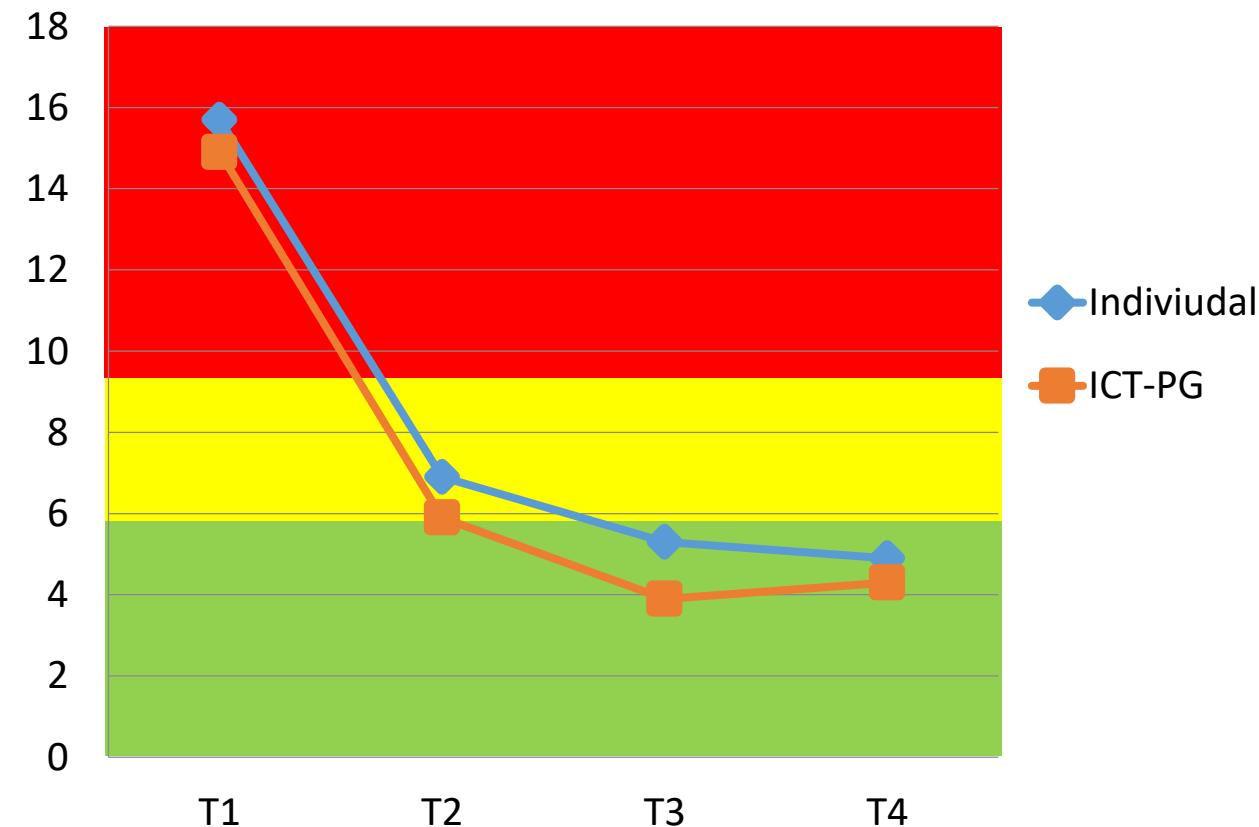
Detection of the Need for Help Gambling (DÉBA-Jeu)

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	20,45 (0,97)[abc]	19,41 (0,88)[abc]	n.s.
T2	7,90 (1,07)[a]	6,29 (0,90)[a]	n.s.
T3	6,01 (1,14)[b]	4,47 (0,95)[b]	n.s.
T4	6,26 (1,27)[c]	4,47 (0,98)[c]	n.s.
Tot	11,15	8,86	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Tremblay, Ménard, Ferland et Blanchette-Martin, 2005)
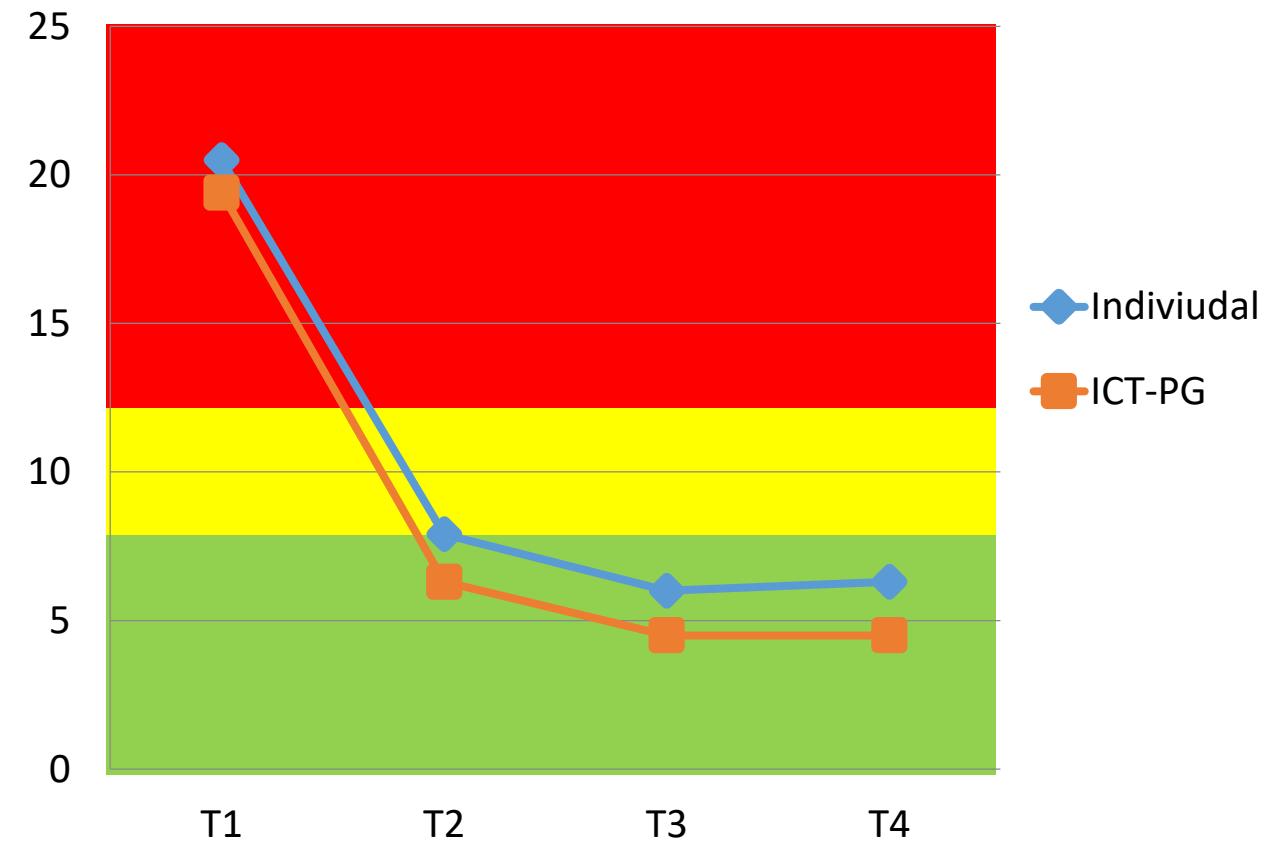
Gambling related beliefs inventory - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	54,23 (1,53)[abc]	52,67 (1,38)[abc]	n.s.
T2	44,78 (1,67)[a]	39,44 (1,44)[a]	*
T3	43,26 (1,79)[b]	39,11 (1,48)[b]	n.s.
T4	43,86 (1,94)[c]	39,80 (1,56)[c]	*
Tot	47,18	43,00	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Ladouceur, Jacques, Giroux, & Sévigny, 2004)
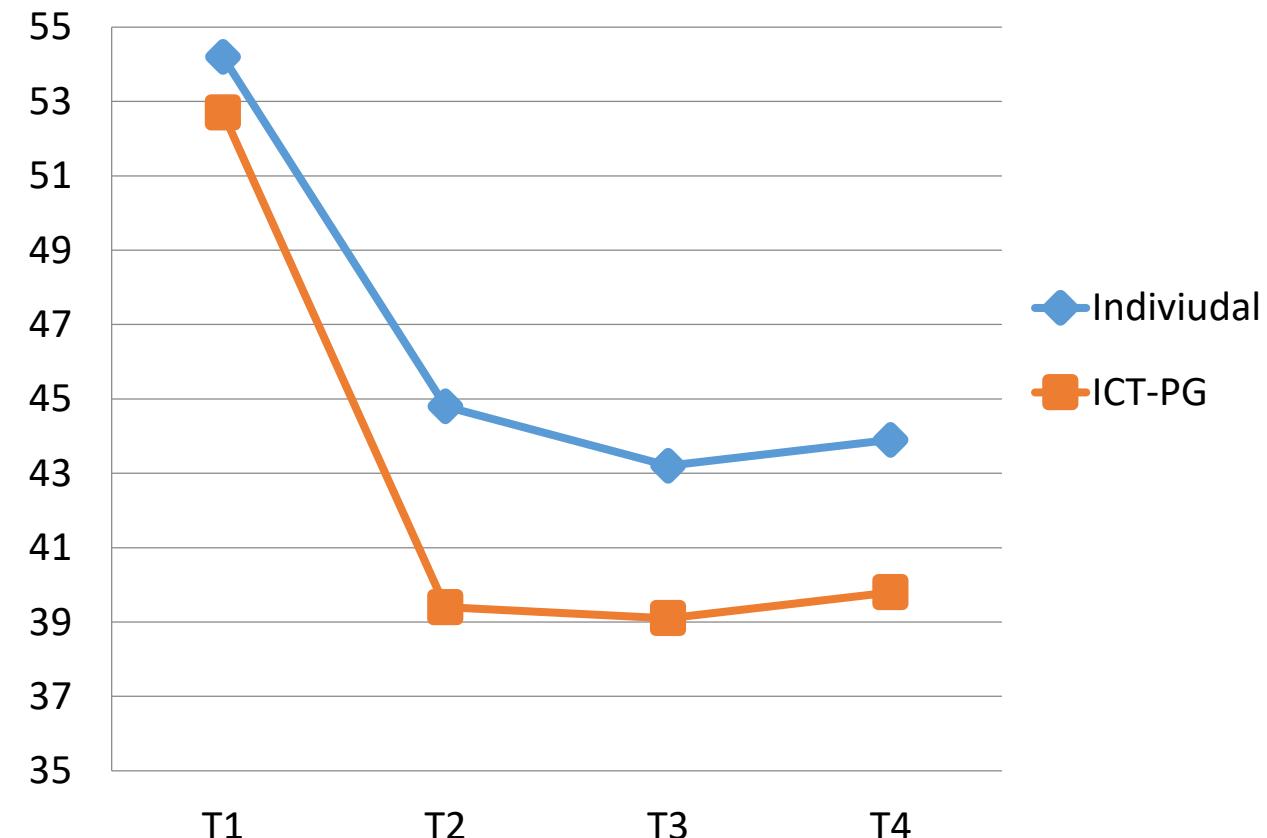
Gambling related beliefs inventory - Partners

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	41,05 (1,08)[ab]	40,74 (0,98)[abc]	n.s.
T2	43,22 (1,12)[a]	35,03 (0,99)[ade]	****
T3	42,84 (1,13)[bc]	37,12 (1,01)[bd]	***
T4	41,08 (1,19)[c]	37,38 (1,02)[ce]	*
Tot	41,98	37,78	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Ladouceur, Jacques, Giroux, & Sévigny, 2004)
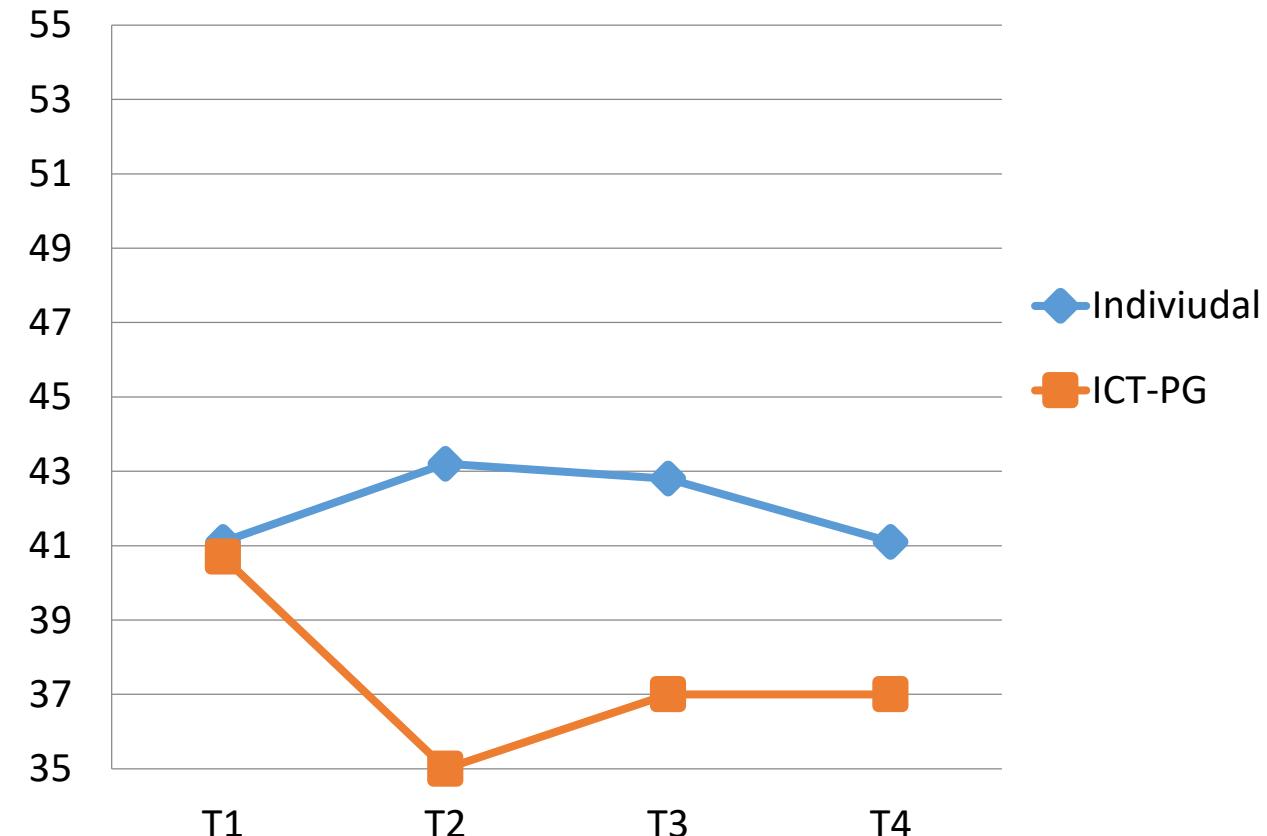
Couple

Dyadic Adjustment Scale (DAS-4) - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	11,20 (0,53)[ab]	11,96 (0,48)[abc]	n.s.
T2	14,29 (0,58)[ac]	15,09 (0,49)[a]	n.s.
T3	14,49 (0,61)[bd]	16,08 (0,51)[b]	*
T4	12,30 (0,70)[cd]	15,43 (0,55)[c]	***
Tot	12,96	14,52	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Sabourin, Valois et Lussier, 2005)
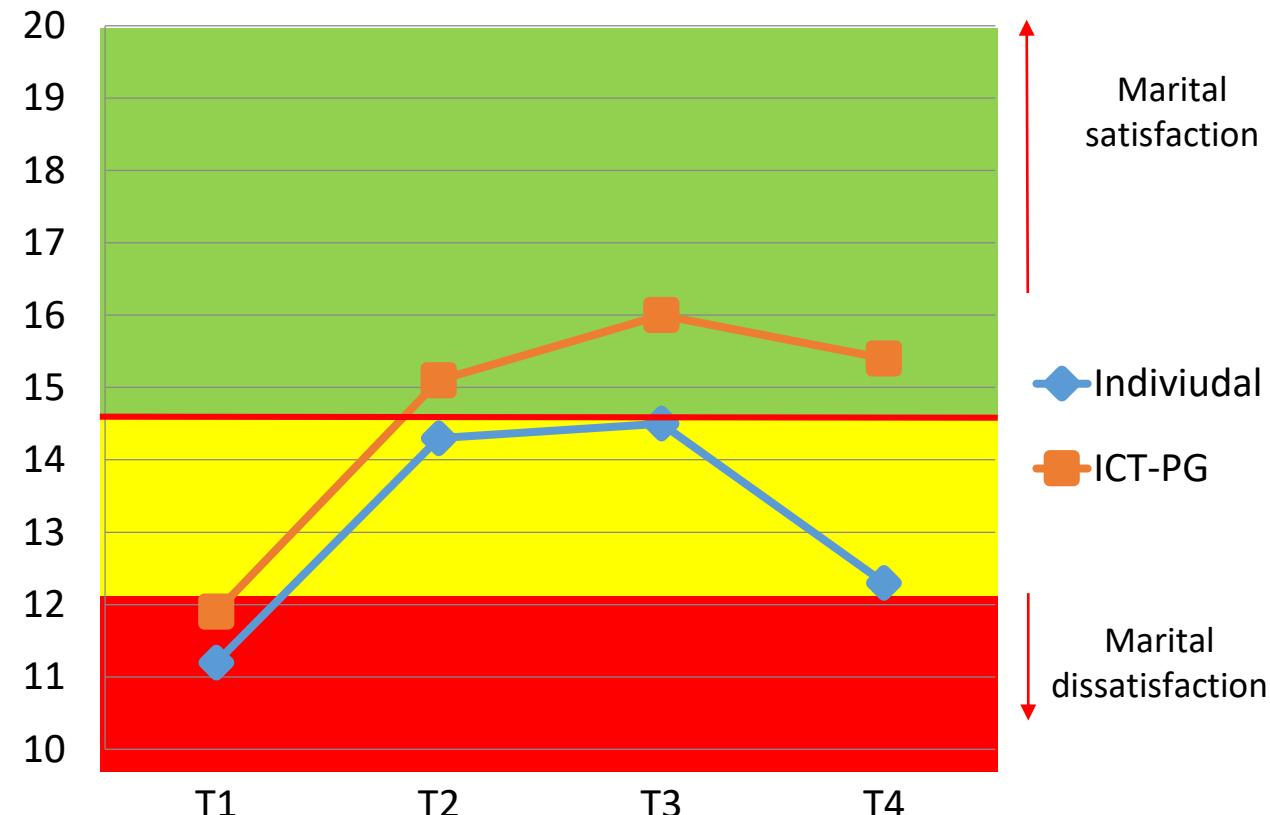
Dyadic Adjustment Scale (DAS-4) - Partners

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	11,29 (0,35)[abc]	11,67 (0,32)[abc]	n.s.
T2	13,28 (0,37)[ad]	15,42 (0,32)[a]	****
T3	14,76 (0,38)[bde]	15,35 (0,34)[b]	n.s.
T4	12,38 (0,41)[ce]	15,05 (0,35)[c]	****
Tot	12,74	14,16	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

Marital satisfaction

Indiviudal
ICT-PG

Marital dissatisfaction

(Sabourin, Valois et Lussier, 2005)
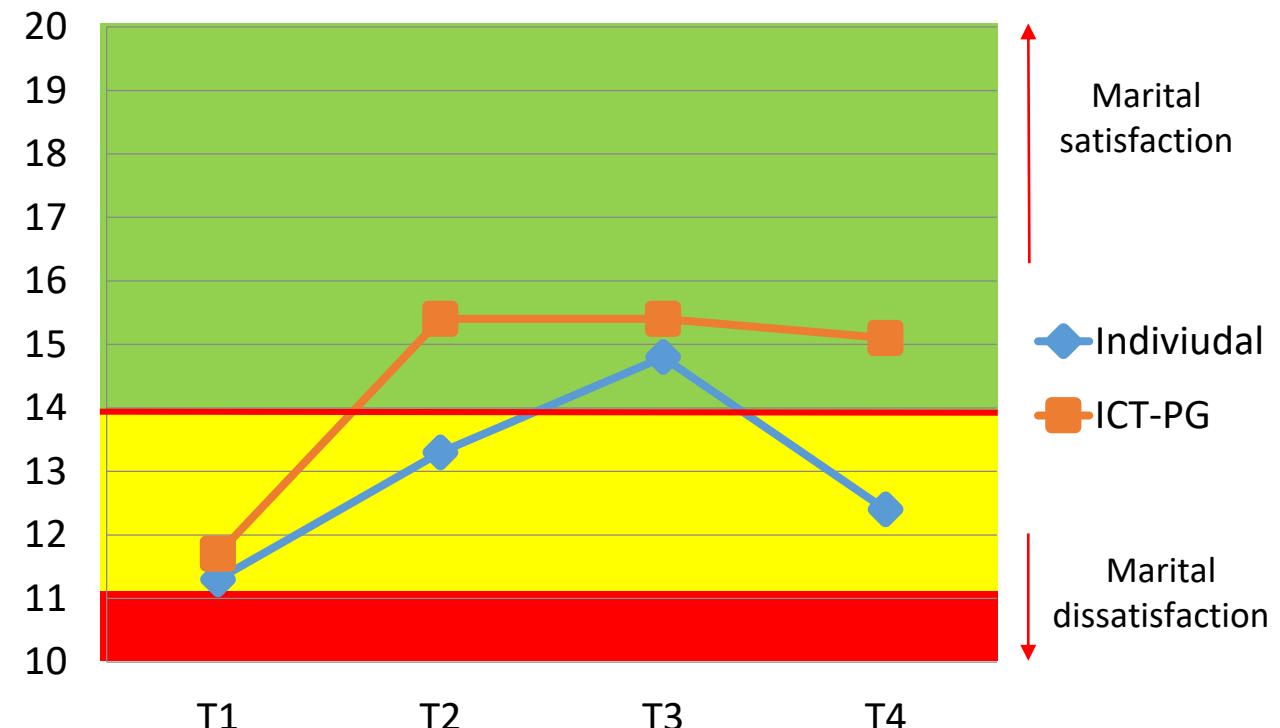
Marital Status Inventory (MSI) - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	2,18 (0,28)[a]	2,02 (0,25)[a]	n.s.
T2	1,91 (0,30)[b]	1,48 (0,26)	n.s.
T3	1,65 (0,32)[c]	1,90 (0,27)	n.s.
T4	3,63 (0,38)[abc]	1,27 (0,30)[a]	****
Tot	2,22	1,70	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

Low commitment towards relationship

Indiviudal

ICT-PG

(Weiss et Cerreto, 1980)
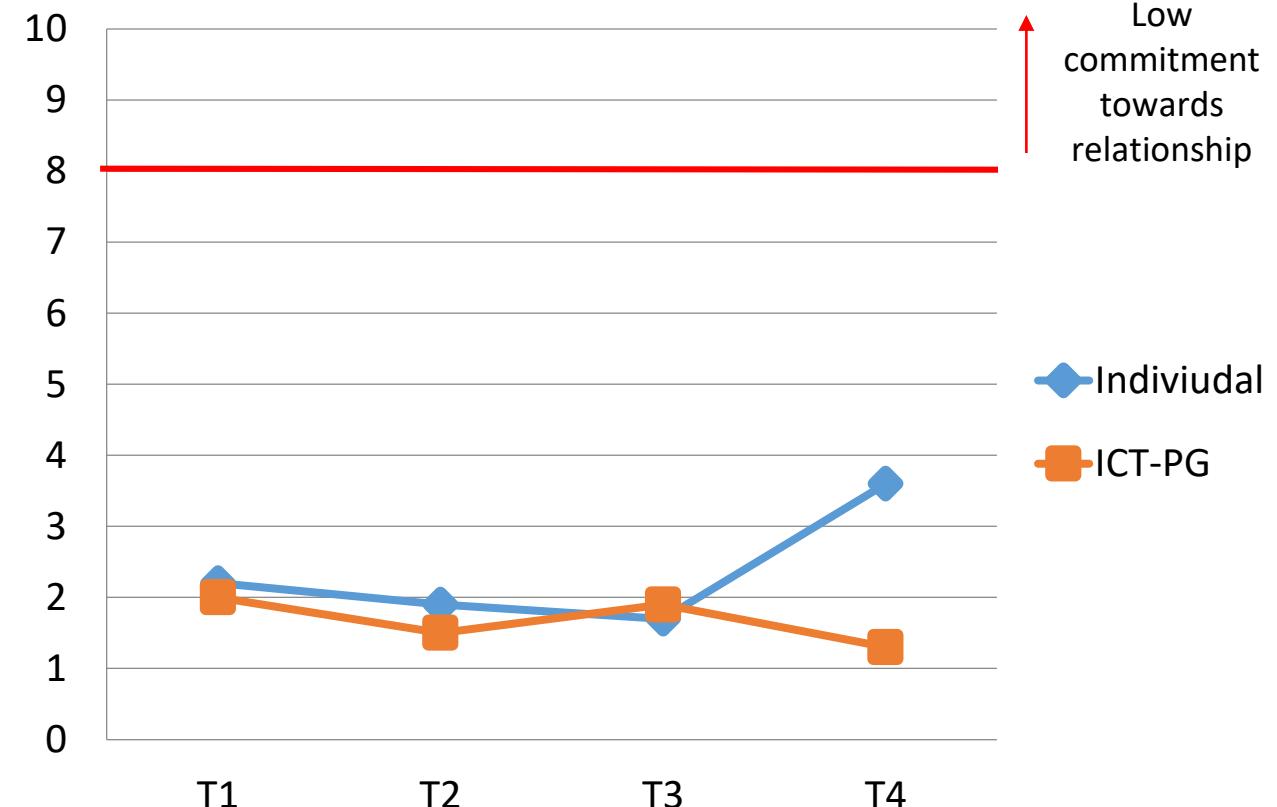
Marital Status Inventory (MSI) - Partners

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	4,10 (0,26)[abc]	4,14 (0,23)[abc]	n.s.
T2	3,59 (0,27)[ad]	2,19 (0,24)[a]	***
T3	2,15 (0,28)[bde]	2,26 (0,24)[b]	n.s.
T4	3,33 (0,31)[ce]	2,17 (0,25)[c]	**
Tot	3,42	2,81	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

Low commitment towards relationship

Indiviudal

ICT-PG

(Weiss et Cerreto, 1980)
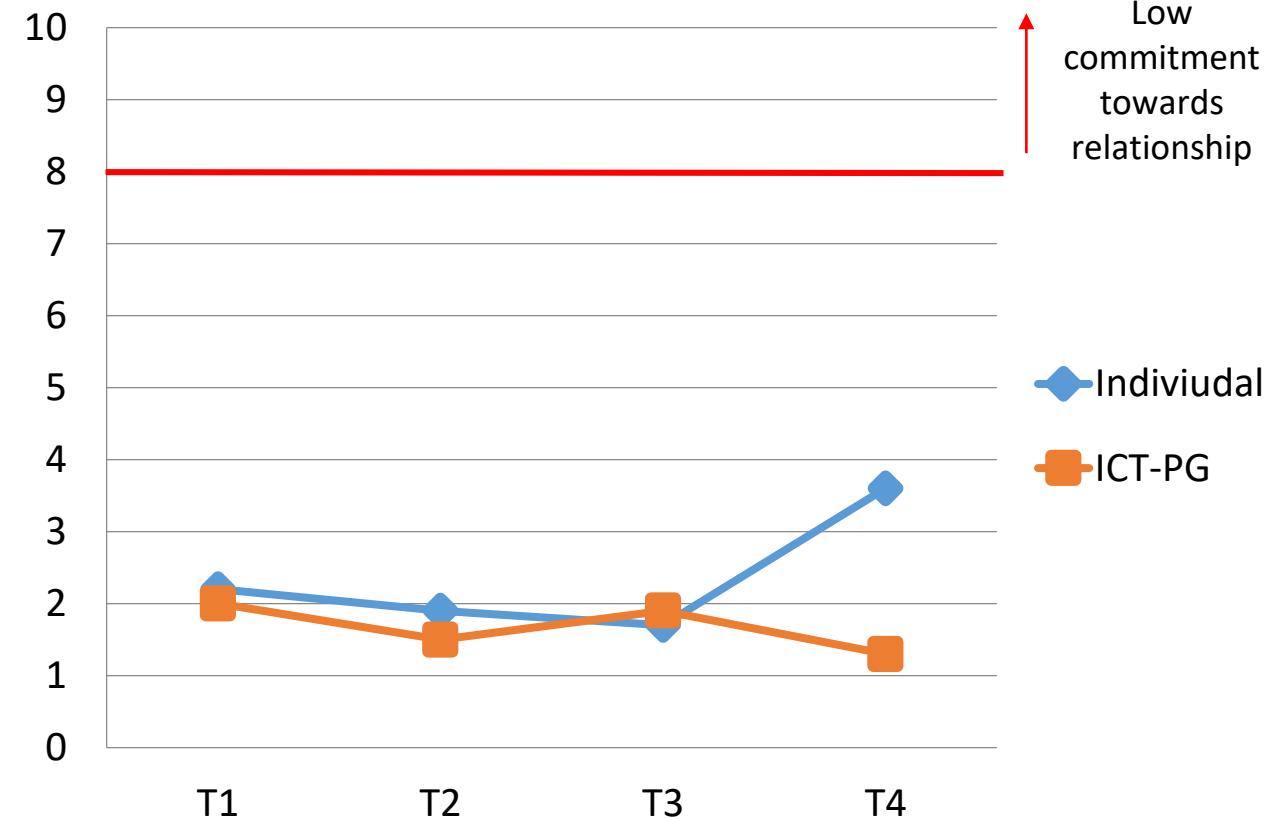
Couples Support Questionnaire - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	30,68 (0,51)	31,10 (0,46)[abc]	n.s.
T2	30,77 (0,56)	32,65 (0,48)[a]	**
T3	30,64 (0,59)	33,30 (0,49)[b]	***
T4	29,66 (0,67)	33,67 (0,54)[c]	****
Tot	30,51	32,56	****

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Brassard & Lussier, 2004)
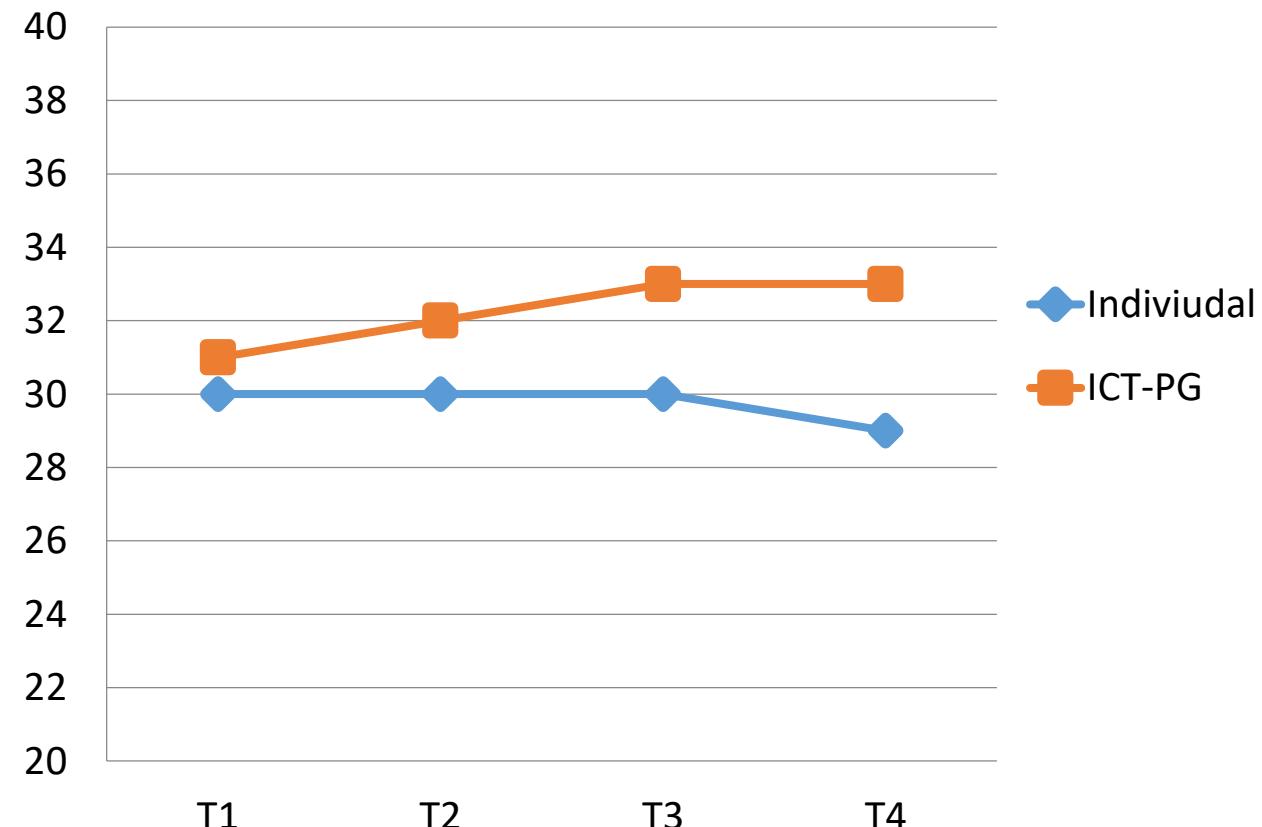
Couples Support Questionnaire - Partners

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	29,90 (0,51)[ab]	29,93 (0,46)[abc]	n.s.
T2	29,46 (0,53)[cd]	32,05 (0,47)[ad]	***
T3	31,09 (0,54)[ac]	30,83 (0,47)[bde]	n.s.
T4	30,99 (0,58)[bd]	31,85 (0,49)[ce]	n.s.
Tot	30,21	31,05	n.s.

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Brassard & Lussier, 2004)
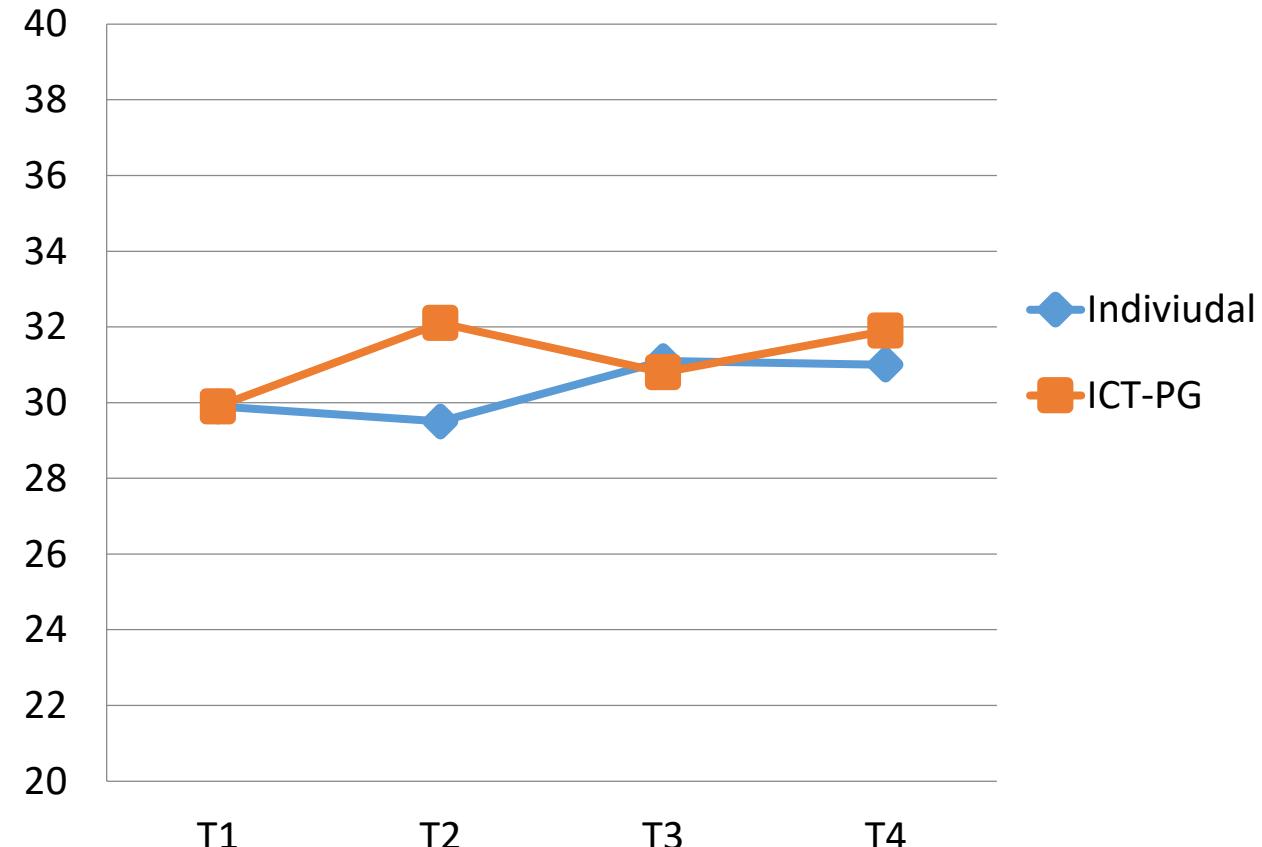
Interpersonal Communication Skills Inventory Gamblers (oneself evaluation)

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	33,48 (1,00)	34,34 (0,90)[abc]	n.s.
T2	34,48 (1,09)	38,57 (0,94)[a]	**
T3	35,66 (1,17)	37,41 (0,97)[b]	n.s.
T4	35,86 (1,32)	39,68 (1,06)[c]	*
Tot	34,63	37,25	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Boyd & Roach, 1977)
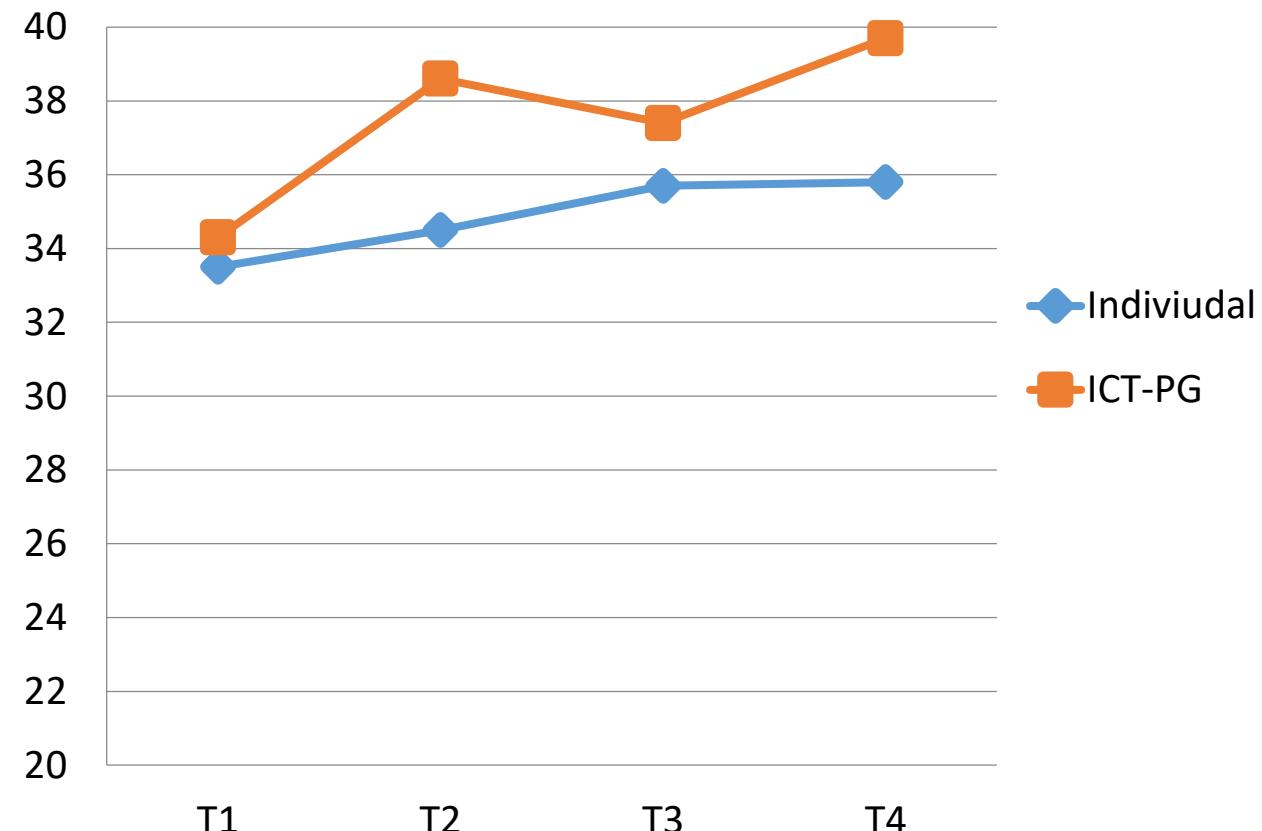
Interpersonal Communication Skills Inventory Partners (oneself evaluation)

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	36,99 (0,58)[abc]	37,39 (0,53)[abc]	n.s.
T2	38,45 (0,61)[a]	38,69 (0,54)[ade]	n.s.
T3	38,42 (0,62)[b]	39,73 (0,54)[bd]	n.s.
T4	39,24 (0,67)[c]	39,82 (0,57)[ce]	n.s.
Tot	37,99	38,74	n.s.

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Boyd & Roach, 1977)
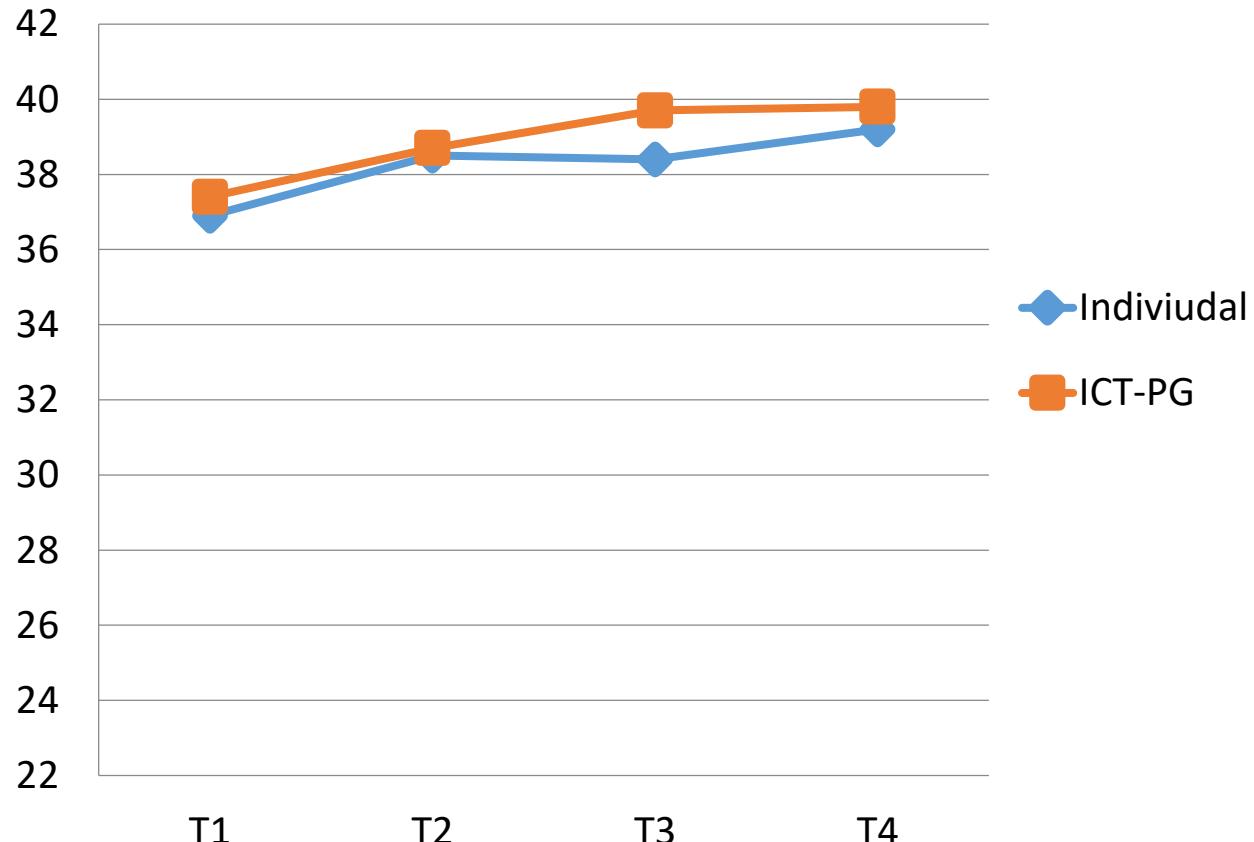
Interpersonal Communication Skills Inventory Gamblers (partner evaluation)

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	34,11 (1,19)	34,81 (1,05)[ab]	n.s.
T2	32,84 (1,29)	37,80 (1,11)[a]	**
T3	34,97 (1,38)	36,89 (1,14)	n.s.
T4	32,68 (1,63)	39,06 (1,21)[b]	**
Tot	33,74	36,94	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Boyd & Roach, 1977)
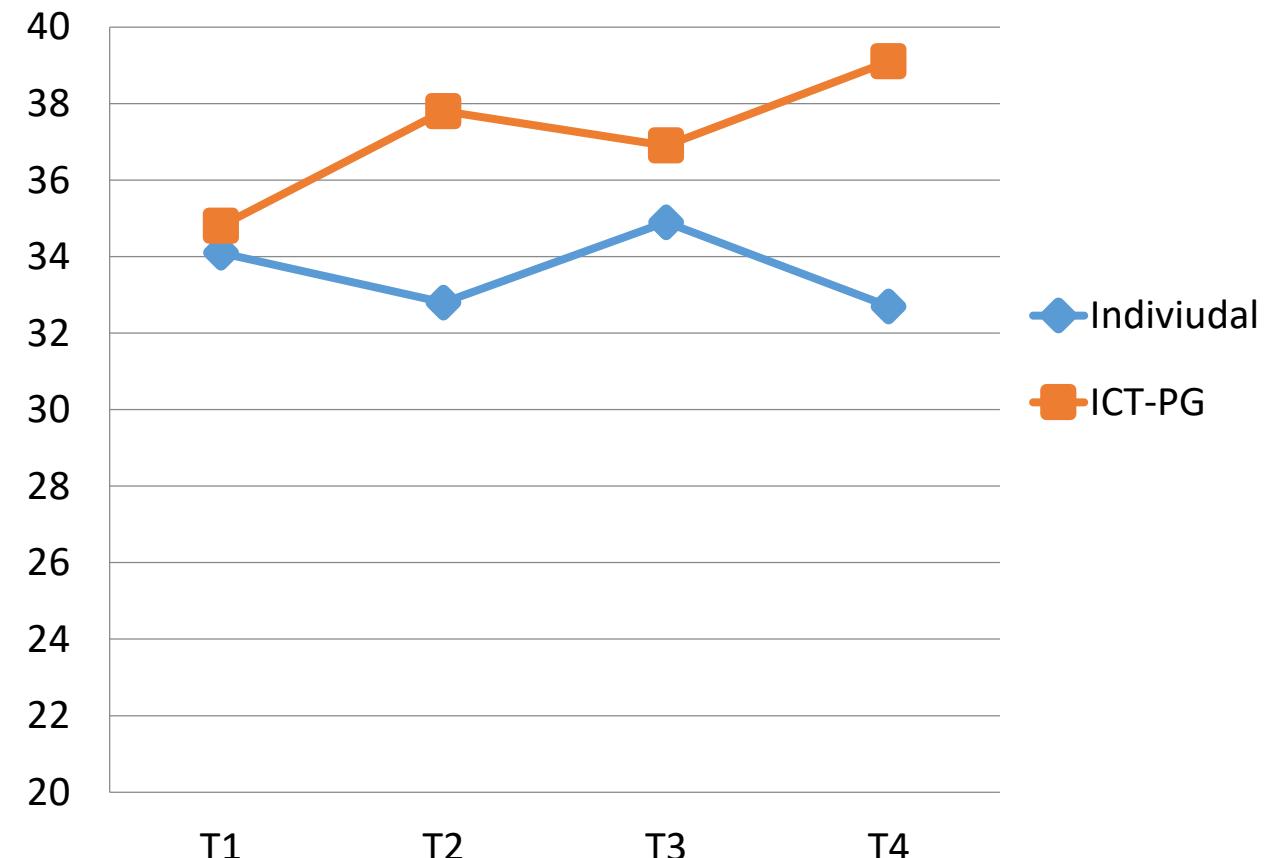
Interpersonal Communication Skills Inventory Partners (partner evaluation)

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	28,76 (0,80)[abc]	28,69 (0,72)[abc]	n.s.
T2	31,36 (0,82)[a]	35,22 (0,73)[a]	***
T3	32,50 (0,84)[b]	34,65 (0,75)[b]	n.s.
T4	32,43 (0,90)[c]	35,15 (0,78)[c]	*
Tot	30,84	32,93	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Boyd & Roach, 1977)
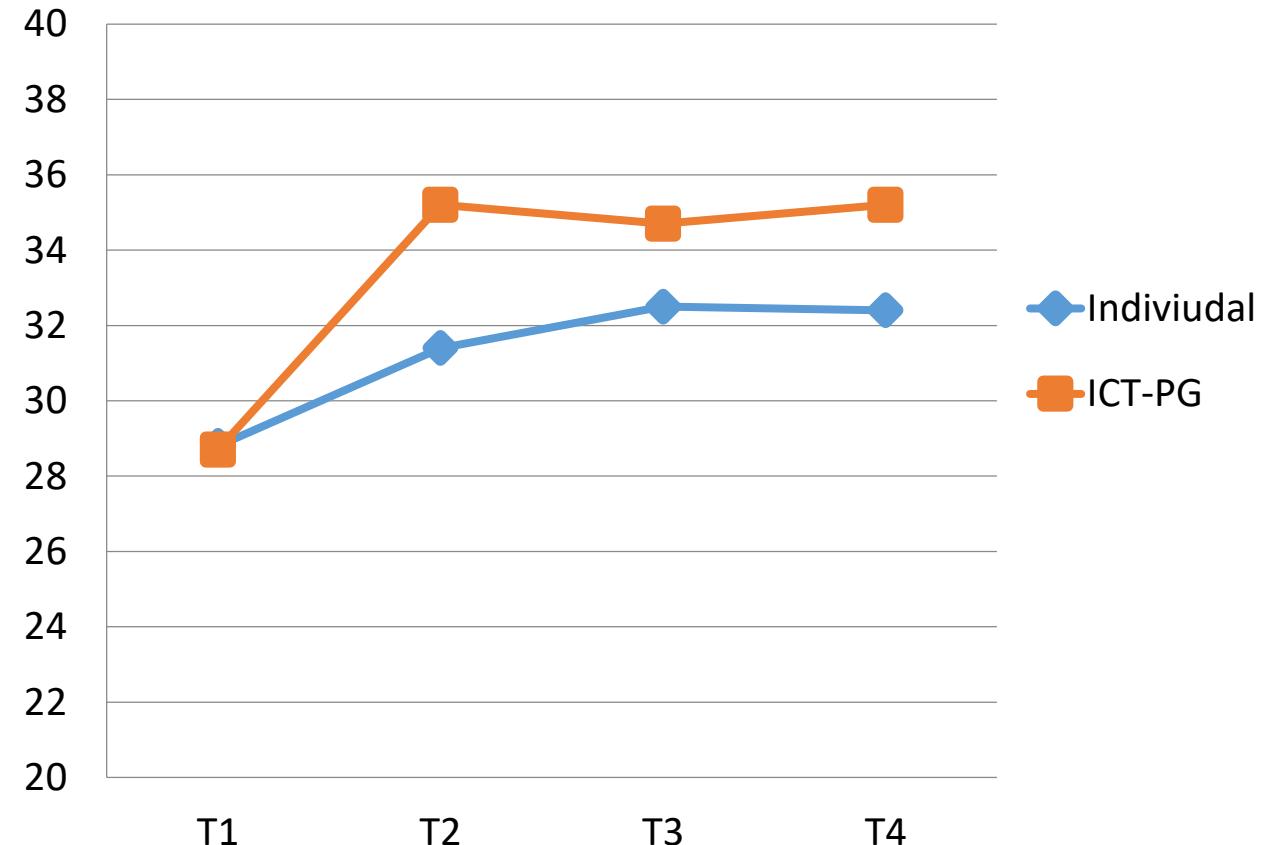
Marital Problem Solving Scale (MPSS) - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	44,67 (1,05)	45,95 (0,95)[a]	n.s.
T2	46,63 (1,15)	48,53 (0,98)[a]	n.s.
T3	44,75 (1,23)	48,30 (1,02)	*
T4	44,70 (1,40)	48,29 (1,12)	*
Tot	45,21	47,68	**

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Baugh, Avery, & Sheets-Haworth, 1982)
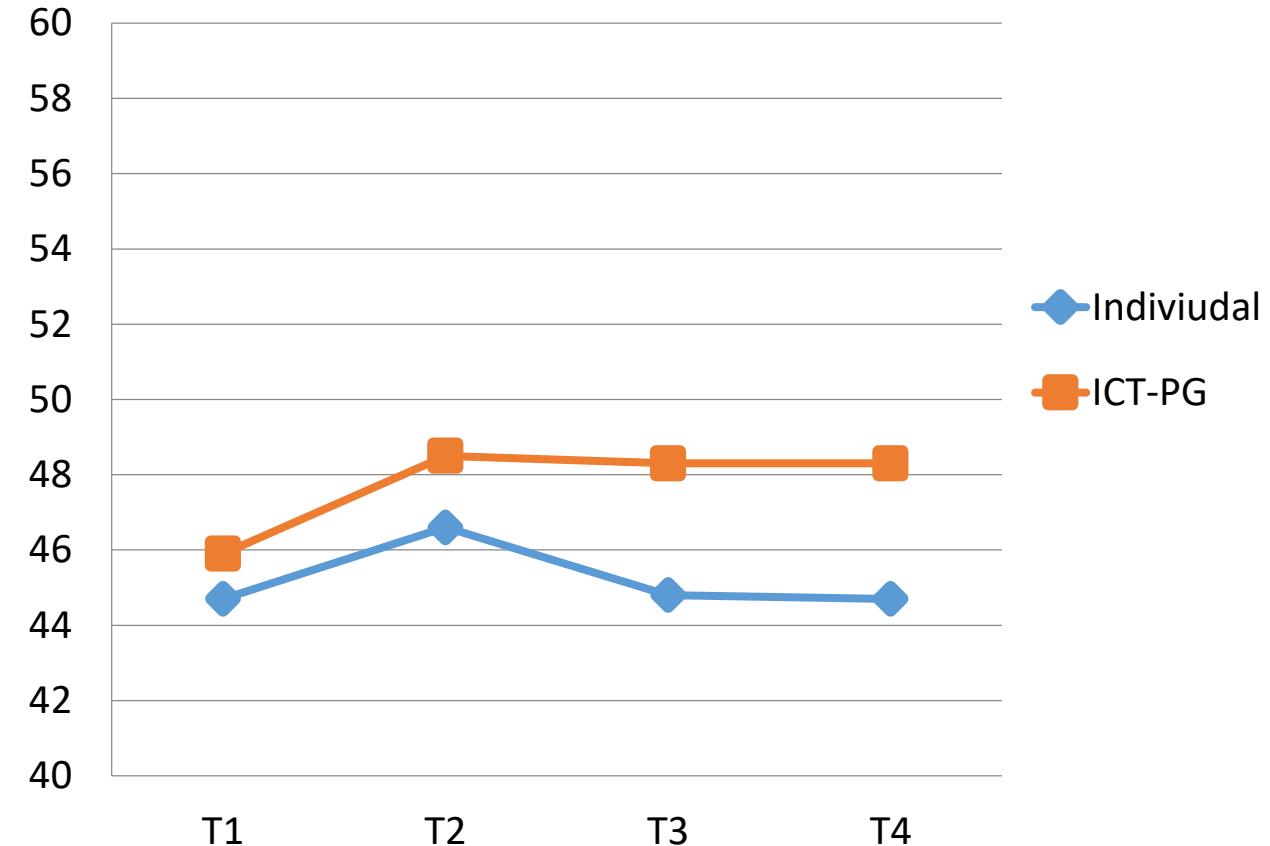
Marital Problem Solving Scale (MPSS) - Partners

	Individual *M* (SD)	ICT-PG *M* (SD)	Sig.
T1	43,53 (0,74)[abc]	44,14 (0,67)[abc]	n.s.
T2	47,02 (0,77)[ade]	48,58 (0,68)[a]	n.s.
T3	48,62 (0,80)[bd]	47,90 (0,69)[b]	n.s.
T4	48,54 (0,88)[ce]	48,75 (0,73)[c]	n.s.
Tot	45,21	47,06	n.s.

P<0,0001****; P<0,001***; P<0,01**; P<0,05*


(Baugh, Avery, & Sheets-Haworth, 1982)
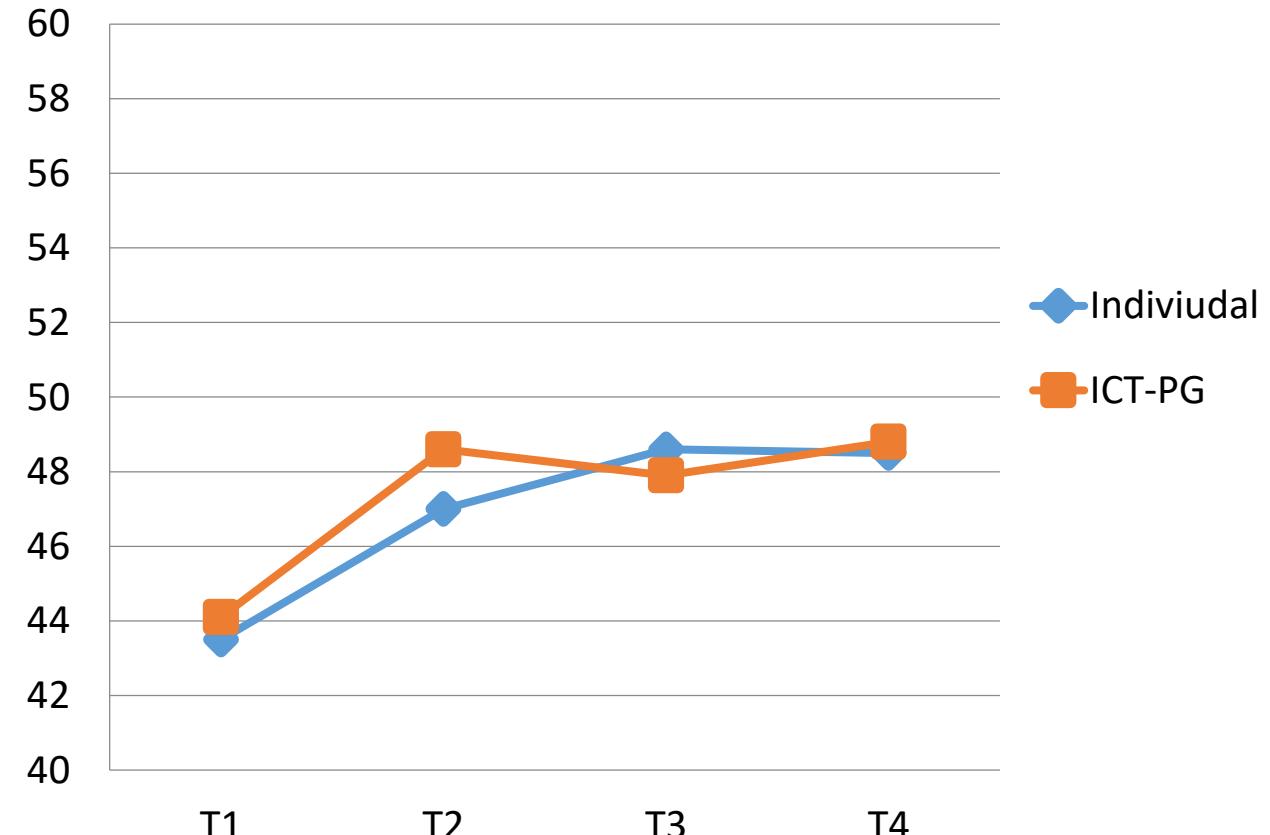
Personnal

Center for Epidemiologic Studies Depression scale (CES-D) - Gamblers

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	15,56 (1,14)[abc]	14,88 (1,03)[abc]	n.s.
T2	11,86 (1,24)[a]	9,08 (1,06)[a]	n.s.
T3	10,96 (1,33)[b]	8,29 (1,10)[b]	n.s.
T4	10,22 (1,48)[c]	9,01 (1,15)[c]	n.s.
Tot	12,56	10,51	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Radloff, 1977)
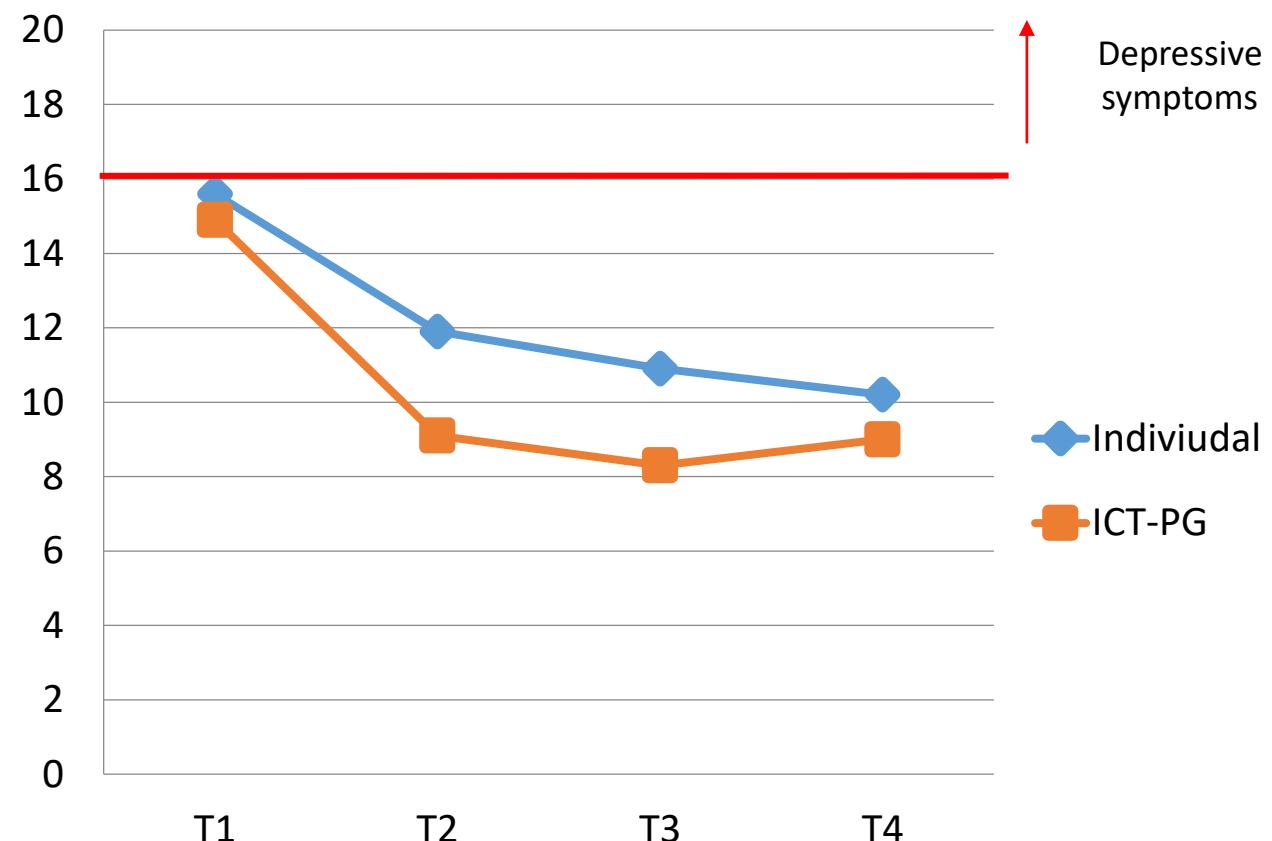
Center for Epidemiologic Studies Depression scale (CES-D) - Partners

|	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	15,67 (0,85)[abc]	16,71 (0,76)[abc]	n.s.
T2	11,63 (0,89)[a]	8,81 (0,78)[a]	*
T3	12,46 (0,92)[b]	8,37 (0,79)[b]	***
T4	11,81 (0,99)[c]	8,07 (0,82)[c]	**
Tot	13,32	11,02	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Radloff, 1977)
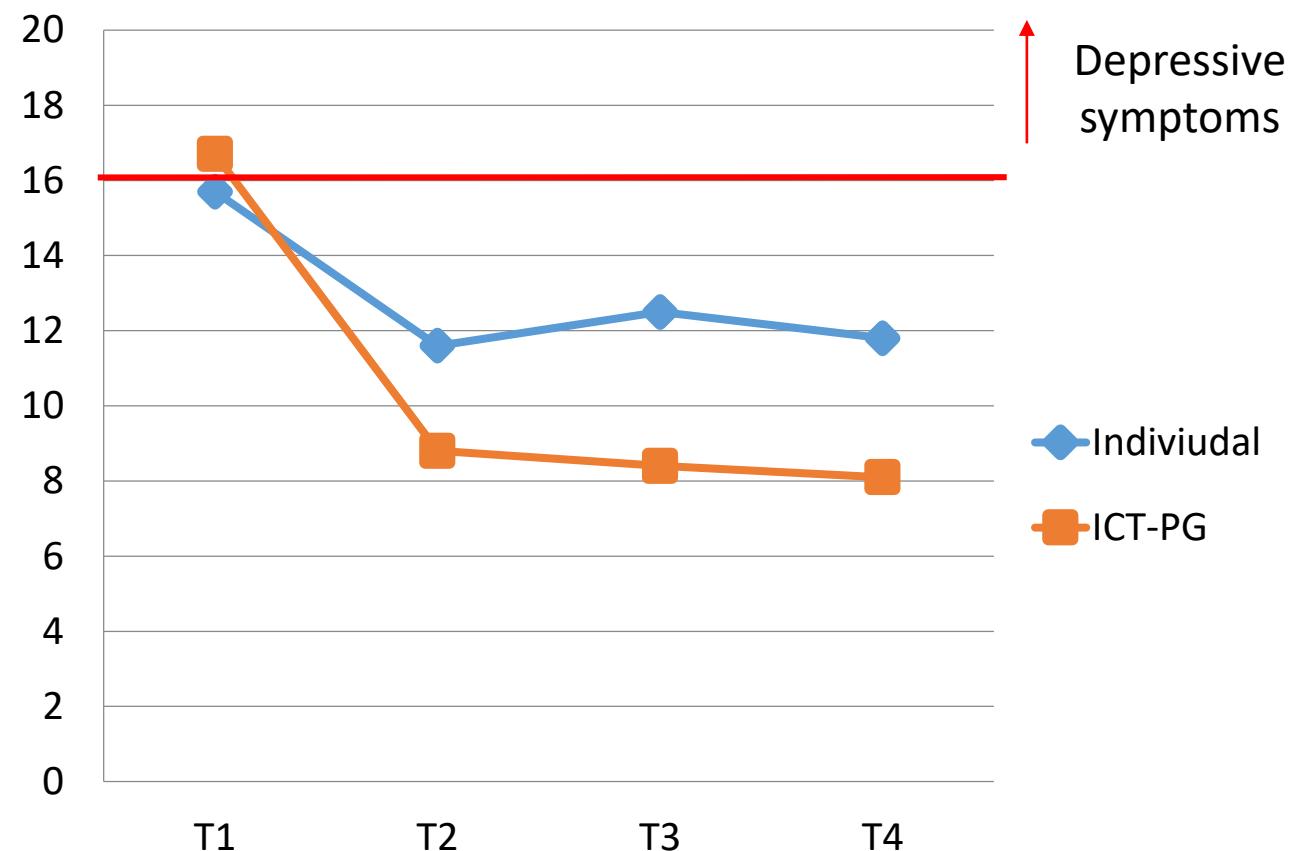
Psychiatric symptom index - Gamblers

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	20,58 (1,58)[abc]	18,83 (1,43)[abc]	n.s.
T2	14,04 (1,73)[a]	14,45 (1,48)[ad]	n.s.
T3	15,26 (1,84)[b]	10,19 (1,53)[bd]	*
T4	13,43 (2,04)[c]	12,24 (1,59)[c]	n.s.
Tot	16,38	14,20	n.s.

P<0,0001****; P<0,001***; P<0,01**; P<0,05*

(Ilfeld, 1976)
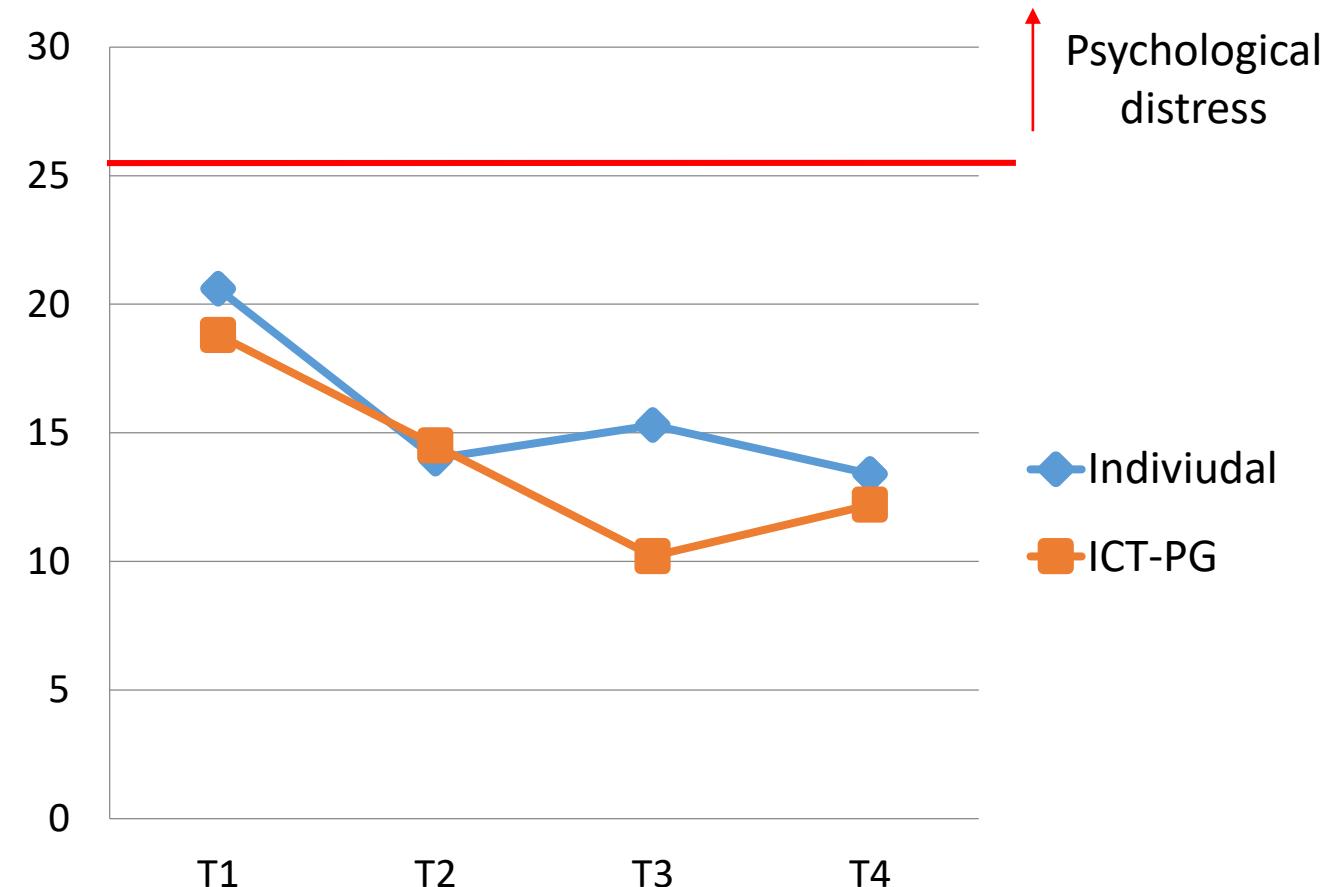
Psychiatric symptom index - Partners

	Individual M (SD)	ICT-PG M (SD)	Sig.
T1	22,38 (1,08)[abc]	23,75 (0,97)[abc]	n.s.
T2	16,40 (1,13)[a]	12,76 (0,99)[a]	*
T3	17,03 (1,16)[b]	11,94 (1,01)[b]	***
T4	16,96 (1,25)[c]	13,45 (1,04)[c]	*
Tot	18,84	16,13	*

P<0,0001****; P<0,001***; P<0,01**; P<0,05*
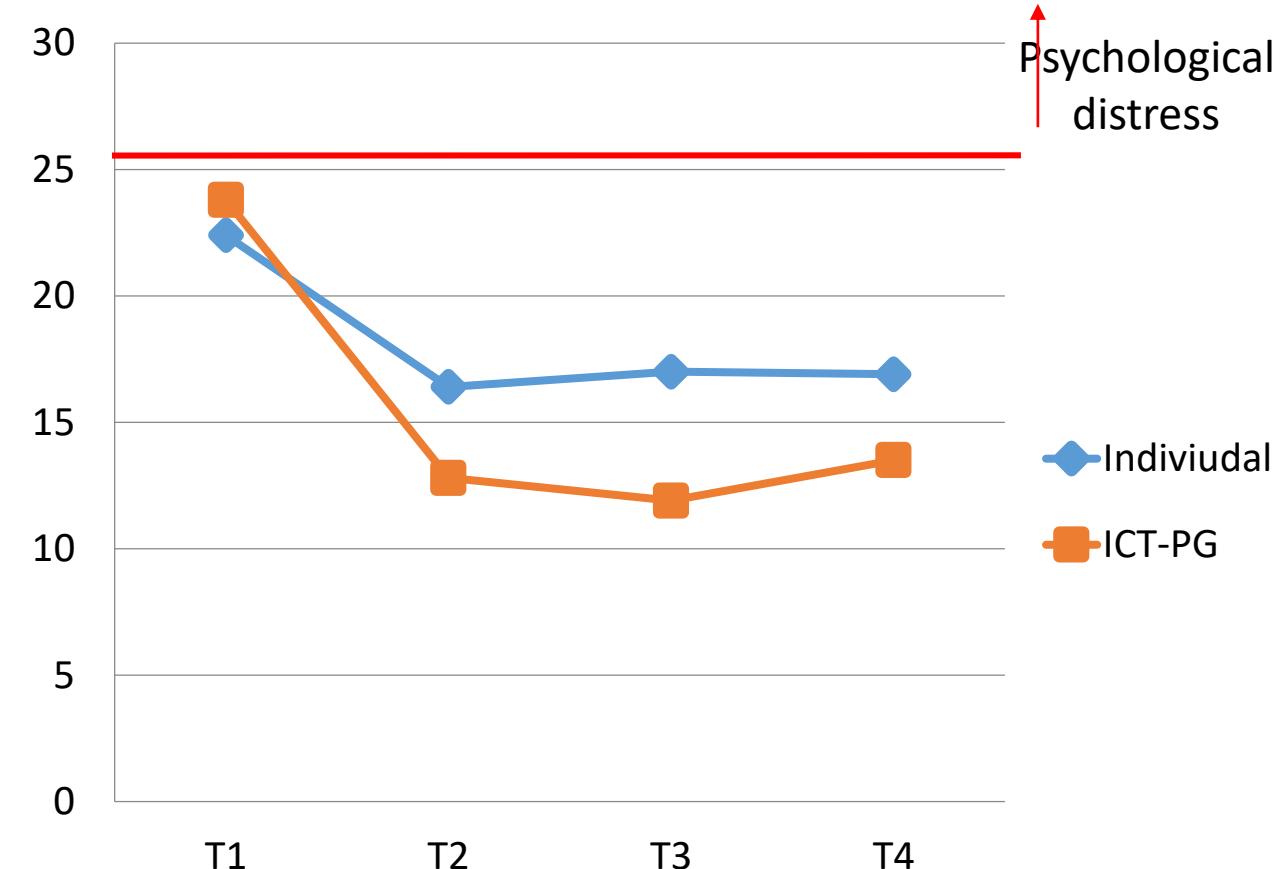
(Ilfeld, 1976)

CONCLUSION

Conclusion

- Globally, participants in both modalities improved over time.

- On many indices of gambling severity, the gamblers in ICT-PG showed a better improvement at follow-ups: better reduction in gambling addiction, capacity of control and erroneous cognitions.

- Partners get far more psychological benefits when they are included in ICT-PG than when the gambler has access to individual treatment
  - Observation and limitation: Partners in Individual modality receive few services

- The couple modality is also associated with a better couple functioning observed on different variables at both follow-ups: Marital satisfaction, mutual support, degree of commitment, communication and negotiation abilities.

- The results illustrate the necessity to offer a better diversity of treatment modalities to gamblers and their partner.

- Further research should help understand how to improve this type of intervention by responding to questions like:
  - What is the optimal number of couple sessions?
  - Can we have a combination of couple and individual sessions?
  - The effectiveness of ICT-PG with concomitant problems related to substance abuse/mental health and gambling.

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