

Professeur Cyril Tarquinio
Université de Lorraine

Unité de Recherche APEMAC EA 4360

Approches Psychologiques et Epidémiologiques des Maladies Chroniques

Directeur Equipe Psychologie de la Santé (EPSAM)

Directeur Master Psychologie de la Santé, Psychologie Clinique

Directeur DU «EMDR et traumatisme» (cf. www.univ-lorraine.fr)

Directeur DIU «Sexologie»

Avancées de la recherche dans le domaine de la thérapie EMDR

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Objectif

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- Présenter un état des lieux non-exhaustif et orienté de la recherche autour de la thérapie EMDR.

Plan de présentation

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- 1. Quelques classiques

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- 2. EMDR et psychophysiologie

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- 2. EMDR et psychophysiologie
- 3. EMDR et fonctionnement cérébral

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- 4. Vers de nouvelles problématiques

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- 1. Quelques classiques
- 2. EMDR et psychophysiologie
- 3. EMDR et fonctionnement cérébral
- 4. Vers de nouvelles problématiques
- 5. Questions et perspectives pour la recherche et la clinique



1. Quelques classiques



Comparison of Two Treatments for Traumatic Stress: A Community-Based Study of EMDR and Prolonged Exposure



G. Ironson, B. Freund, J.L. Strauss, and J. Williams
University of Miami

JOURNAL OF CLINICAL PSYCHOLOGY, Vol. 58(1), 113-128 (2002)

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6 sessions de 90 minutes

Table 1

*Means and Standard Deviations for PTSD and BDI Scores before and after Six Sessions**

Treatment		Pre	Post
PTSD Scores			
PE		34.56 (8.06)	15.78** (9.16)
EMDR		26.58 (11.56)	9.10** (11.22)
	versus		
BDI Scores			
PE		27.00 (10.84)	10.67** (3.13)
EMDR		17.20 (8.60)	5.50** (4.35)

Note. n = 1
*Sessions in
active treatment

Victimes de viols et de violences

and three

Table 1

Means and Standard Deviations for PTSD and BDI Scores before and after Six

Treatment	15.78**
PTSD Scores	
PE	9.10**
EMDR	
BDI Scores	
PE	10.67**
EMDR	5.50**



Table 2

Distribution of Clients: Number of Dropouts,^a Number of Those Improved and Achieving 70% Reduction in Symptoms, and Number of Those Not Achieving Symptom Reduction

	<i>n</i>	Active Sessions 1–3		Active Sessions 4–6		Active Sessions 1–6		
		Dropouts	Improved Treatment Terminated		Dropouts	Improved		Total Improved
			Yes	No		Yes	No	
PE	12	3	2	7	3	2	2	4 ^b
EMDR	10	0	7	3	0	2	1	9



Journal of Traumatic Stress, Vol. 11, No. 1, 1998

**Eye Movement Desensitization and
Reprocessing (EDMR) Treatment for
Combat-Related Posttraumatic Stress Disorder**

**John G. Carlson,^{1,2} Claude M. Chemtob,³ Kristin Rusnak,¹
Nancy L. Hedlund,⁴ and Miles Y. Muraoka⁴**



Table 2. Means (Standard Deviations) for the Groups on the Psychometric Measures

Scale	Group	Pretreatment	Posttreatment	Follow-up (3-Month)
Mississippi	CON	117.9 (17.6)	112.9 (21.7)	
	RXT	119.4 (18.3)	114.2 (17.5)	110.6 (18.6)
	EMD	117.5 (14.3)	92.8 (20.8)	92.4 (17.2)
PTSD Symptoms	CON	7.5 (1.7)	6.2 (2.4)	
	RXT	6.8 (2.3)	4.7 (2.3)	5.1 (1.9)
	EMD	7.3 (2.1)	3.0 (2.4)	2.1 (2.0)
IES-Total	CON	52.8 (11.5)	38.7 (16.2)	
	RXT	52.9 (9.3)	44.5 (17.4)	45.7 (15.0)
	EMD	52.5 (9.0)	35.2 (22.0)	29.1 (22.0)
IES-Intrusion	CON	27.3 (3.6)	20.9 (8.8)	
	RXT	26.3 (7.5)	21.7 (9.4)	22.7 (9.8)
	EMD	26.7 (7.8)	16.8 (10.8)	15.2 (10.9)
IES-Avoidance	CON	25.4 (10.6)	17.8 (9.3)	
	RXT	26.6 (5.0)	22.8 (10.6)	23.0 (8.0)
	EMD	25.8 (3.0)	18.4 (13.4)	13.9 (11.6)
STAI-State	CON	58.2 (10.5)	51.4 (17.8)	
	RXT	58.2 (12.2)	46.3 (13.3)	47.7 (5.2)
	EMD	47.2 (9.4)	34.9 (9.0)	40.6 (4.9)
STAI-Trait	CON	61.7 (10.6)	55.8 (11.2)	
	RXT	58.0 (9.1)	50.8 (10.7)	51.8 (7.4)
	EMD	54.0 (9.9)	38.6 (9.7)	41.9 (6.9)
BDI	CON	24.0 (9.9)	23.5 (12.8)	
	RXT	23.6 (10.8)	15.8 (12.5)	18.3 (11.7)
	EMD	20.1 (7.5)	6.9 (5.9)	8.6 (9.4)

Table 2. Means (Standard Deviations) for the Groups on the Psychometric Measures

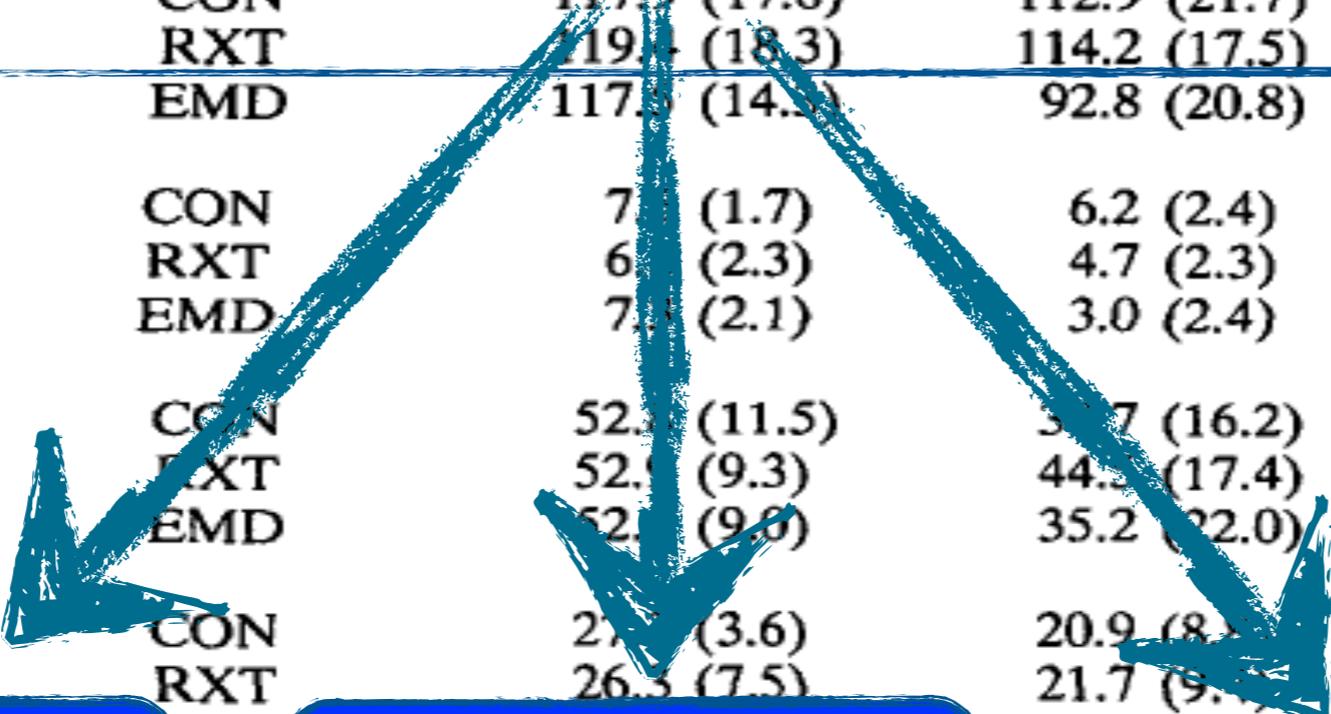
Scale	Group	Pretreatment	Posttreatment	Follow-up (3-Month)
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	RXT	119.4 (18.3)	114.2 (17.5)	110.6 (18.6)
	EMD	117.5 (14.2)	92.8 (20.8)	92.4 (17.2)
PTSD Symptoms	CON	7.1 (1.7)	6.2 (2.4)	
	RXT	6.1 (2.3)	4.7 (2.3)	5.1 (1.9)
	EMD	7.1 (2.1)	3.0 (2.4)	2.1 (2.0)
IES-Total	CON	52.1 (11.5)	50.7 (16.2)	
	RXT	52.1 (9.3)	44.2 (17.4)	45.7 (15.0)
	EMD	52.1 (9.8)	35.2 (22.0)	29.1 (22.0)
IES-Intrusion	CON	27.1 (3.6)	20.9 (8.1)	
	RXT	26.3 (7.5)	21.7 (9.1)	22.7 (9.8)
	EMD	26.3 (7.5)	16.1 (10.1)	16.1 (10.1)
STAI-Trait	CON	58.2 (10.5)	51.1 (10.5)	
	RXT	58.2 (12.2)	46.3 (13.3)	47.7 (5.2)
	EMD	47.2 (9.4)	34.9 (9.0)	40.6 (4.9)
BDI	CON	11.1 (7.4)	11.1 (7.4)	
	RXT	11.1 (7.4)	6.9 (6.9)	6.9 (6.9)
	EMD	20.1 (7.5)	6.9 (5.9)	8.6 (9.4)

EMDR
(n=10)

Relaxation
(n=13)

Contrôle
(n=12)

Anciens combattants avec ESPT



IES-Total

 EMDR

 Relaxation

 Contrôle

IES-Total

■ EMDR

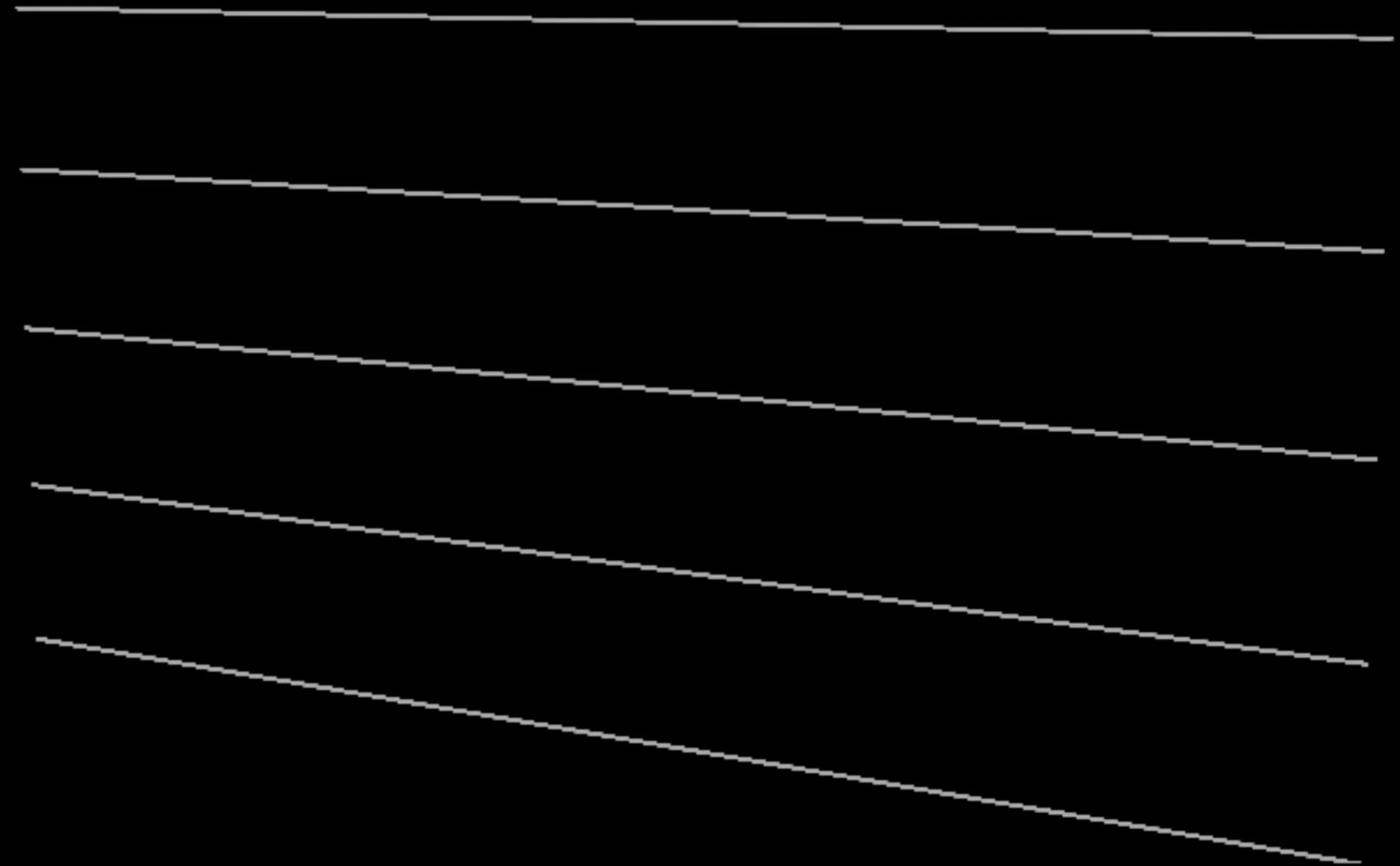
■ Relaxation

■ Contrôle

Pre-Traitement

Post-Traitement

Après 3 mois

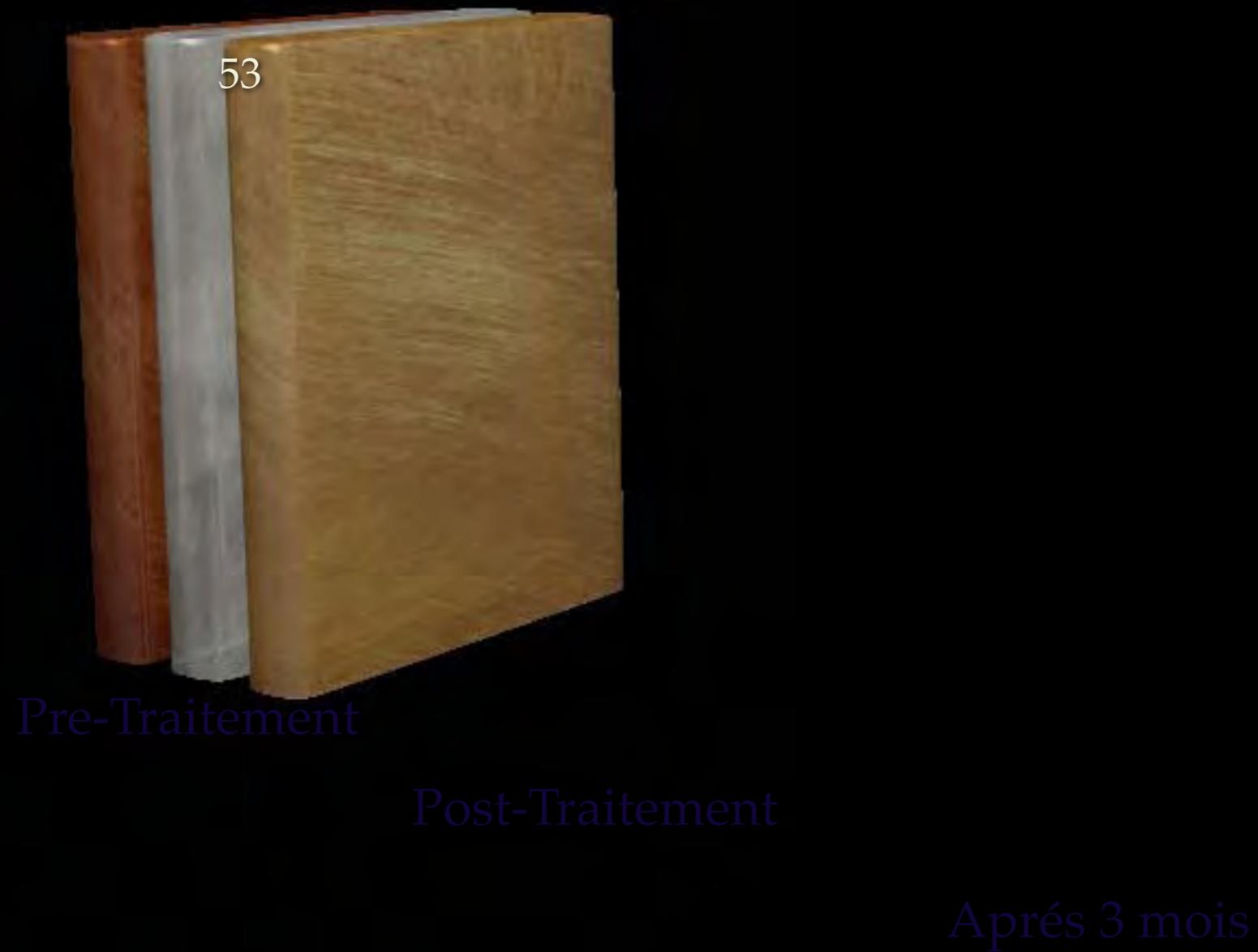


IES-Total

■ EMDR

■ Relaxation

■ Contrôle

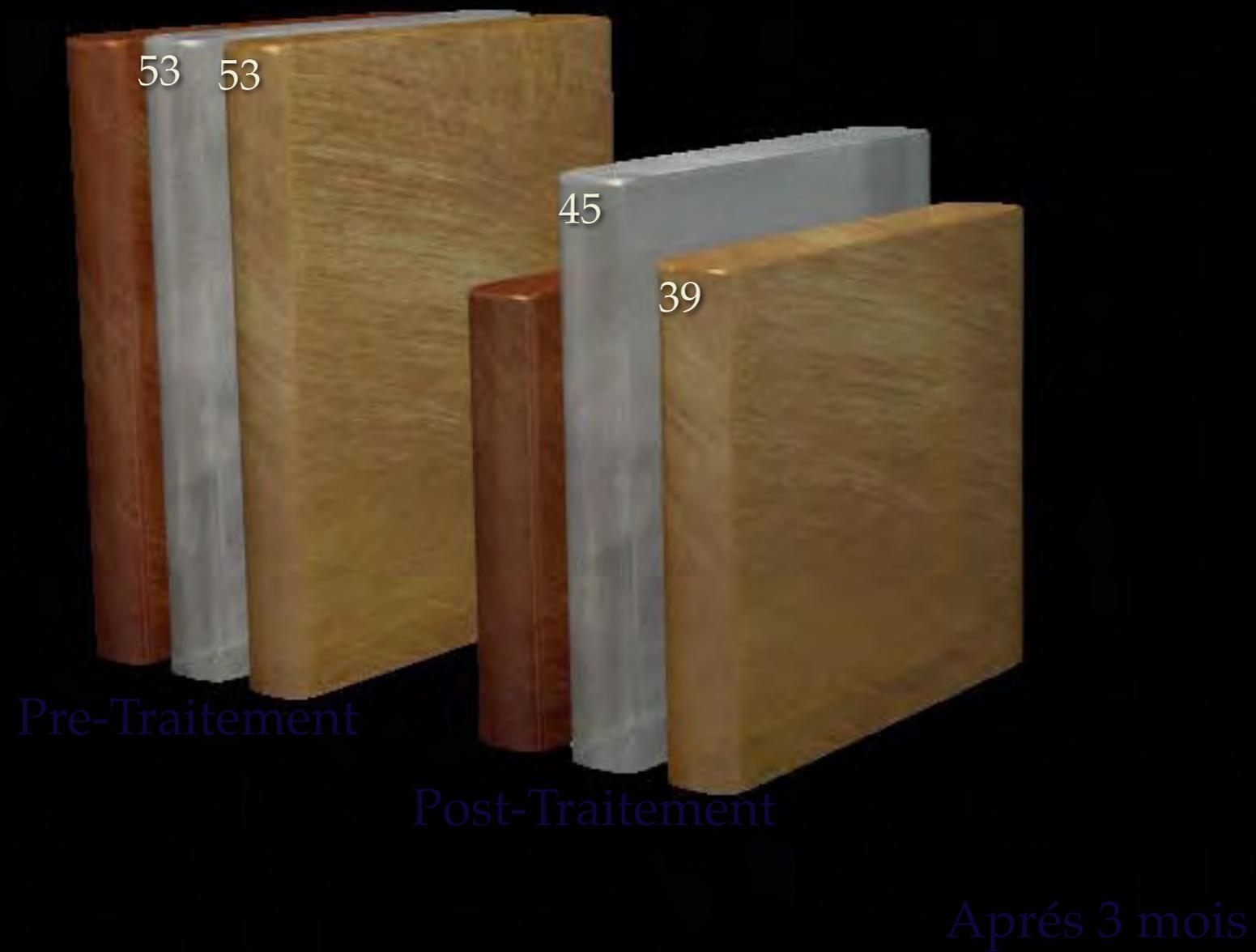


IES-Total

EMDR

Relaxation

Contrôle

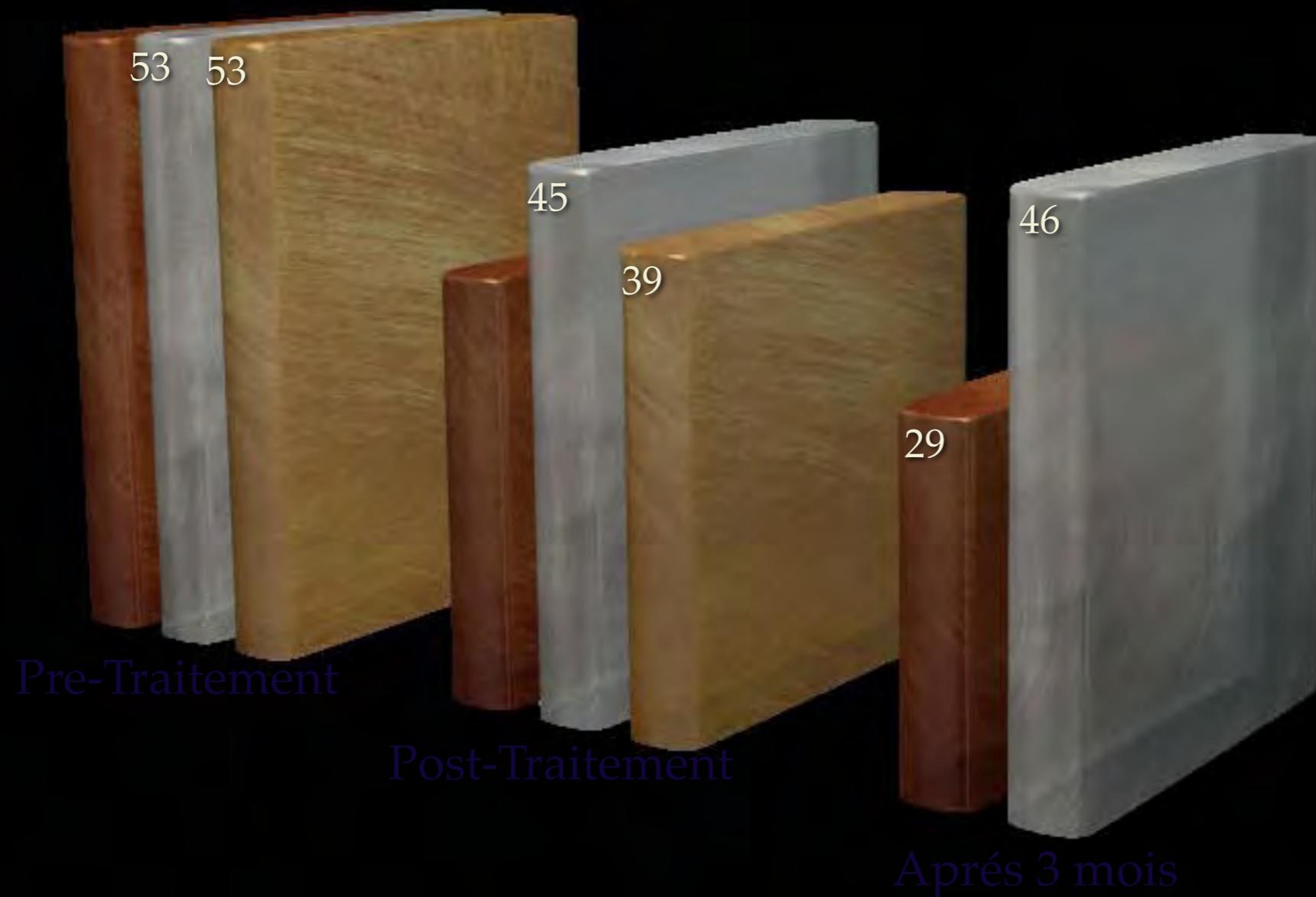


IES-Total

EMDR

Relaxation

Contrôle



BDI

 EMDR

 Relaxation

 Contrôle

BDI

 EMDR

 Relaxation

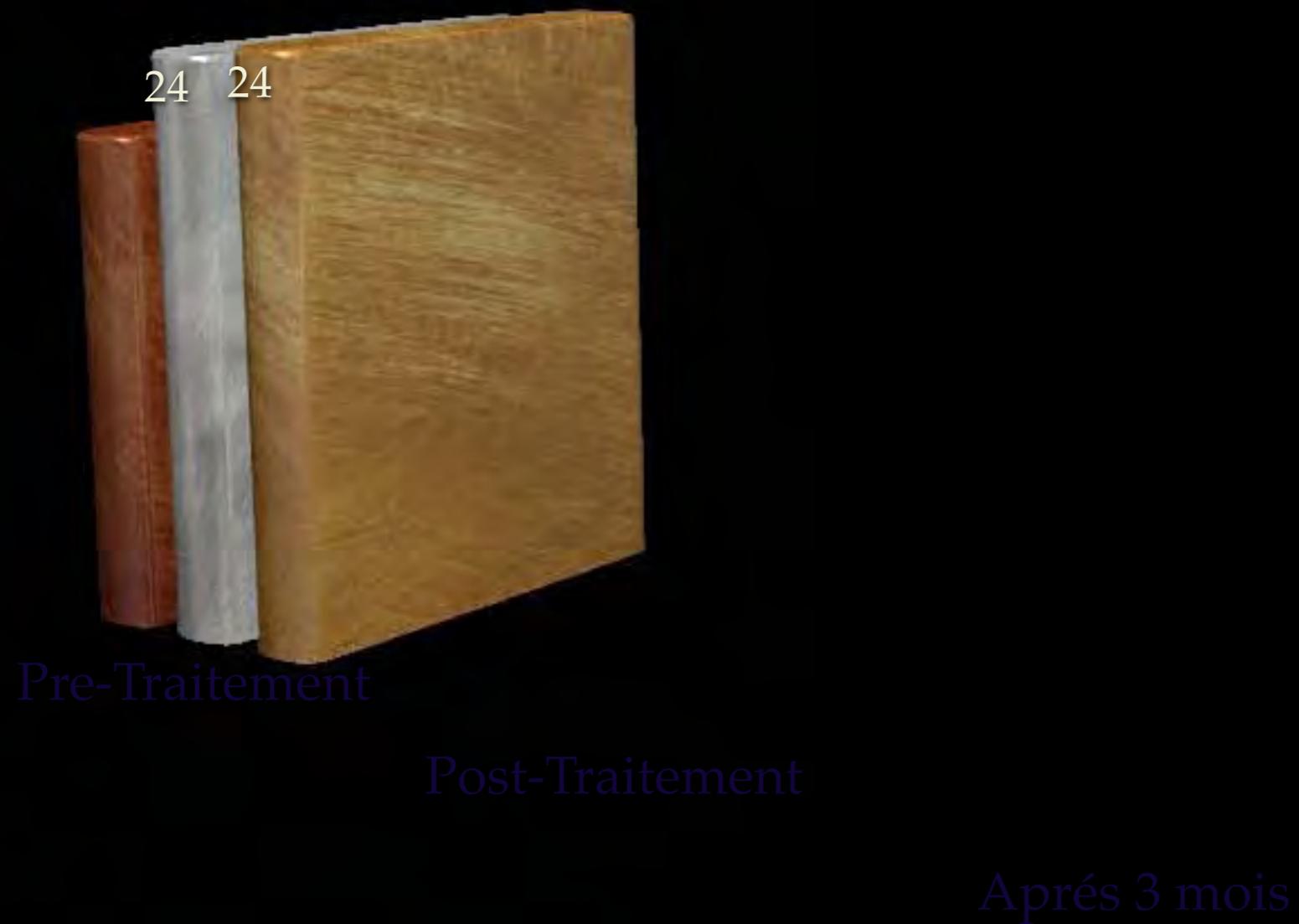
 Contrôle

BDI

■ EMDR

■ Relaxation

■ Contrôle

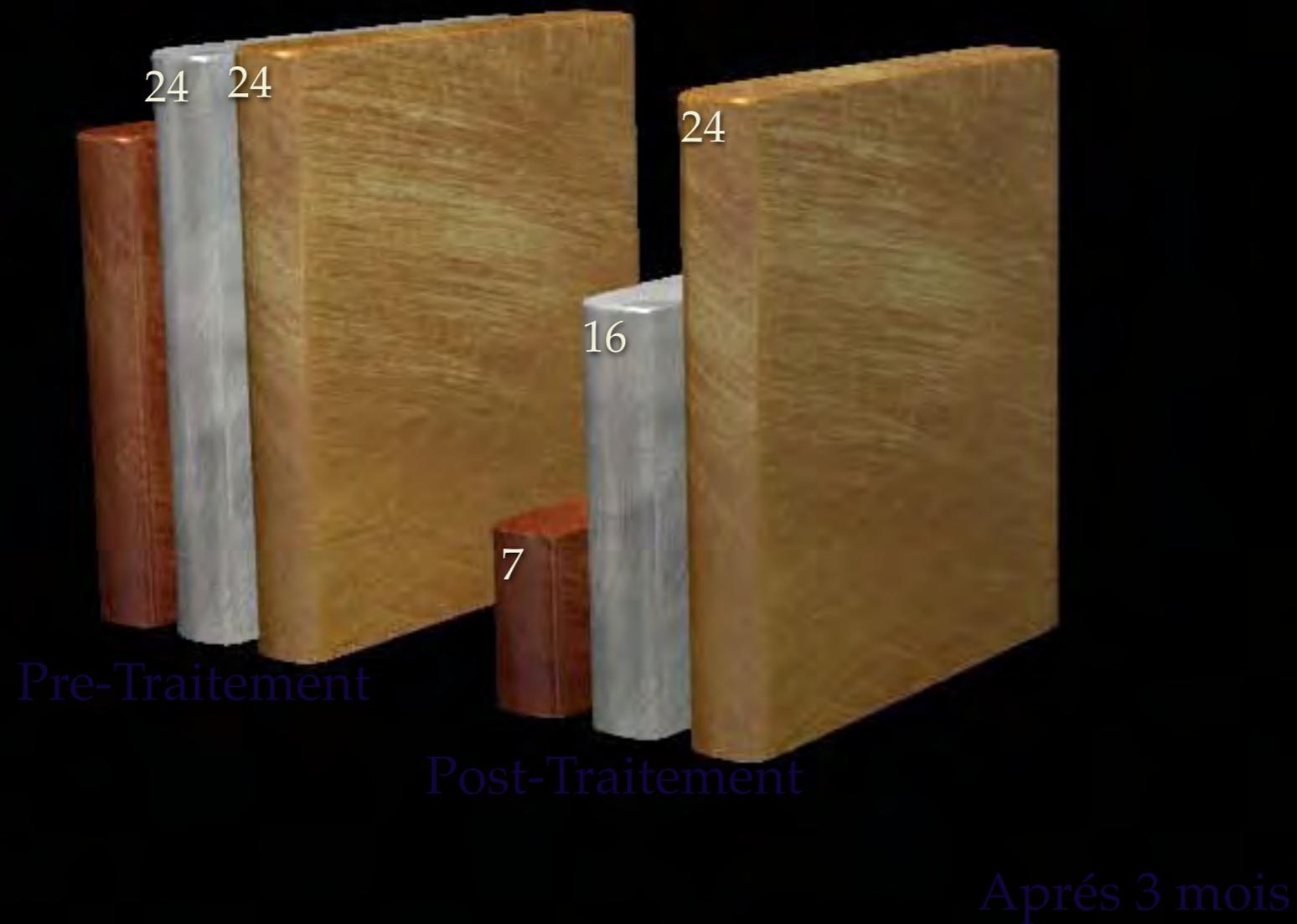


BDI

EMDR

Relaxation

Contrôle

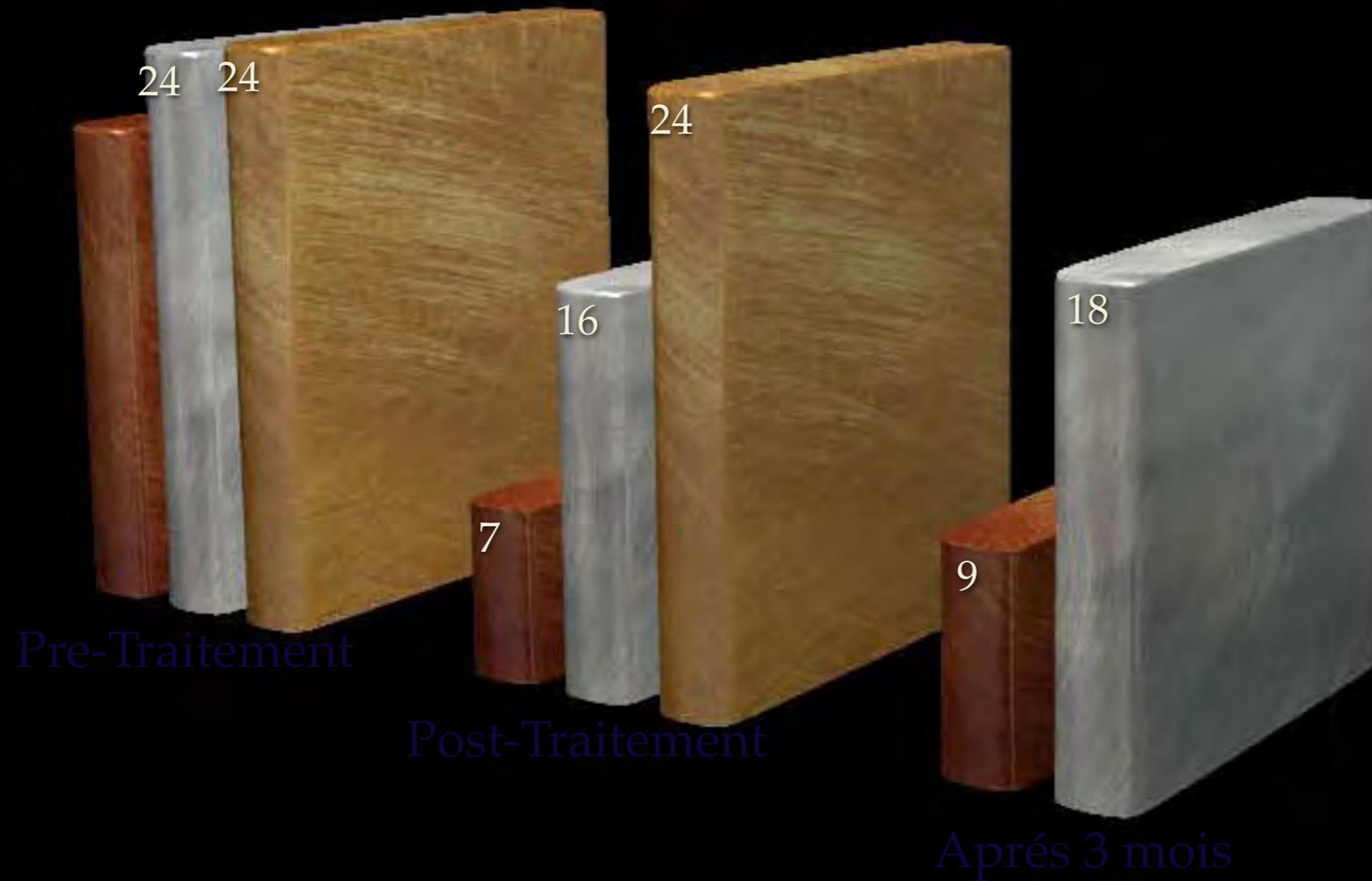


BDI

EMDR

Relaxation

Contrôle

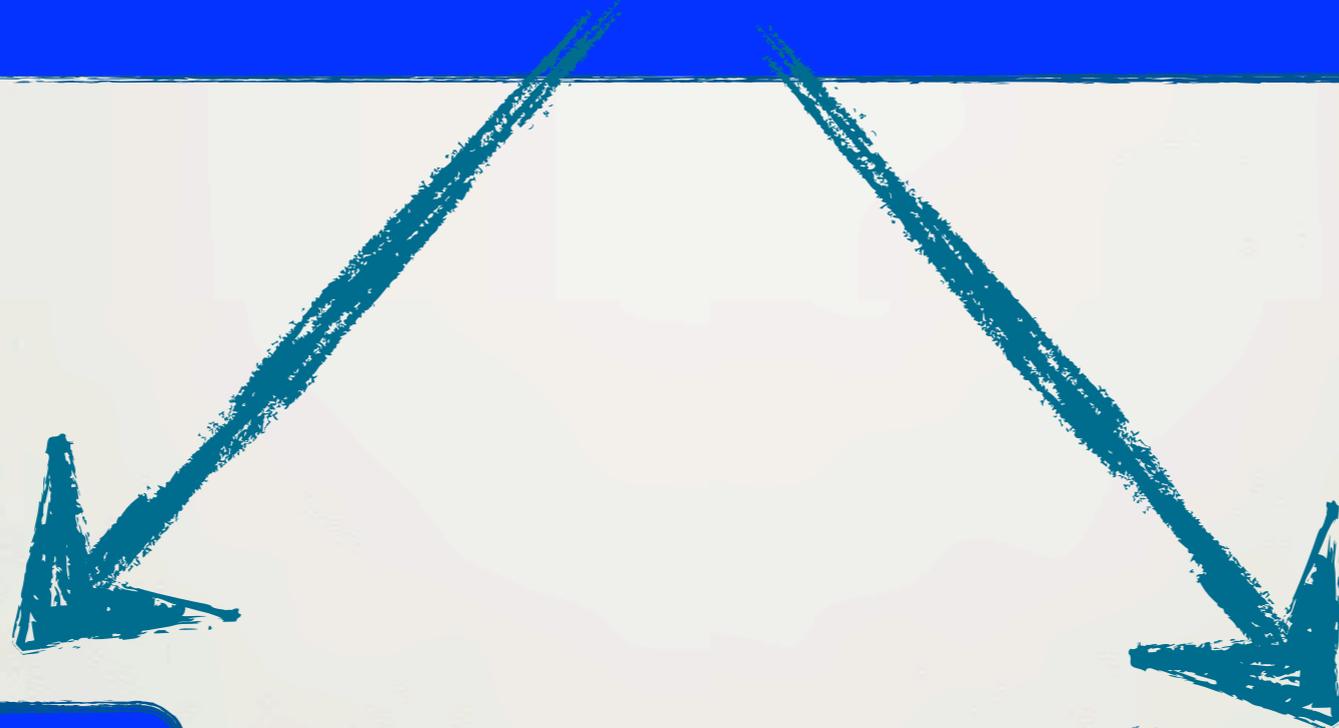


On treatment with eye movement desensitization and reprocessing of chronic post-traumatic stress disorder in public transportation workers – A randomized controlled trial

GÖRAN HÖGBERG, MARCO PAGANI, ÖRJAN SUNDIN, JOAQUIM SOARES, ANNA ÅBERG-WISTEDT, BERIT TÄRNELL, TORE HÄLLSTRÖM



5 sessions de 90 minutes



EMDR
(n=12)

Liste Attente
(n=9)

**Accidents et agressions sur le
lieu de travail**

IES-Total

 EMDR

 Liste Attente

IES-Total

 EMDR

 Liste Attente

IES-Total

■ EMDR

■ Liste Attente



IES-Total

EMDR

Liste Attente



HAM-A

 EMDR

 Liste Attente

HAM-A

 EMDR

 Liste Attente

HAM-A

■ EMDR

■ Liste Attente



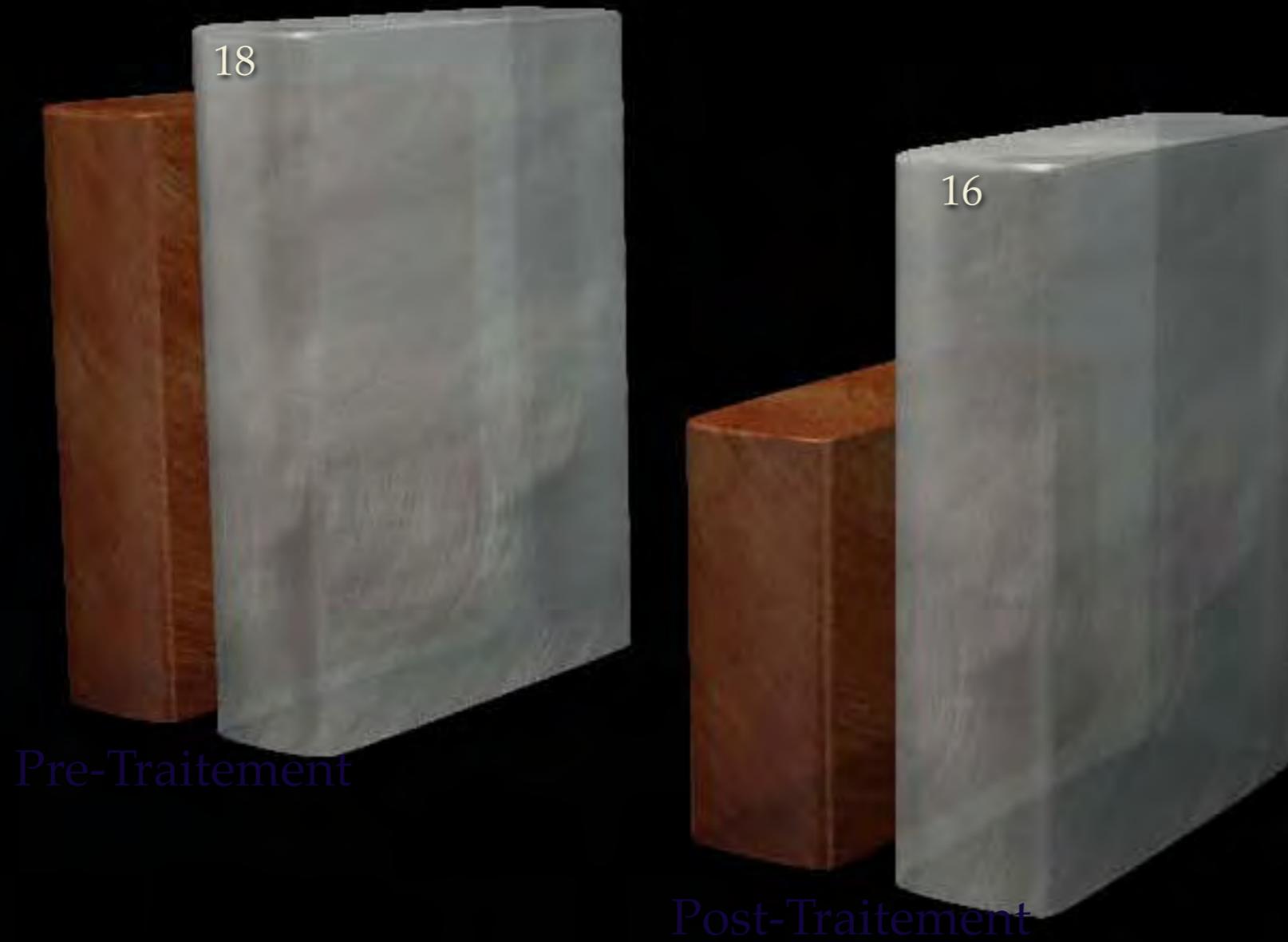
Pre-Traitement

Post-Traitement

HAM-A

■ EMDR

■ Liste Attente



HAM-D

 EMDR

 Liste Attente

HAM-D

 EMDR

 Liste Attente

HAM-D

■ EMDR

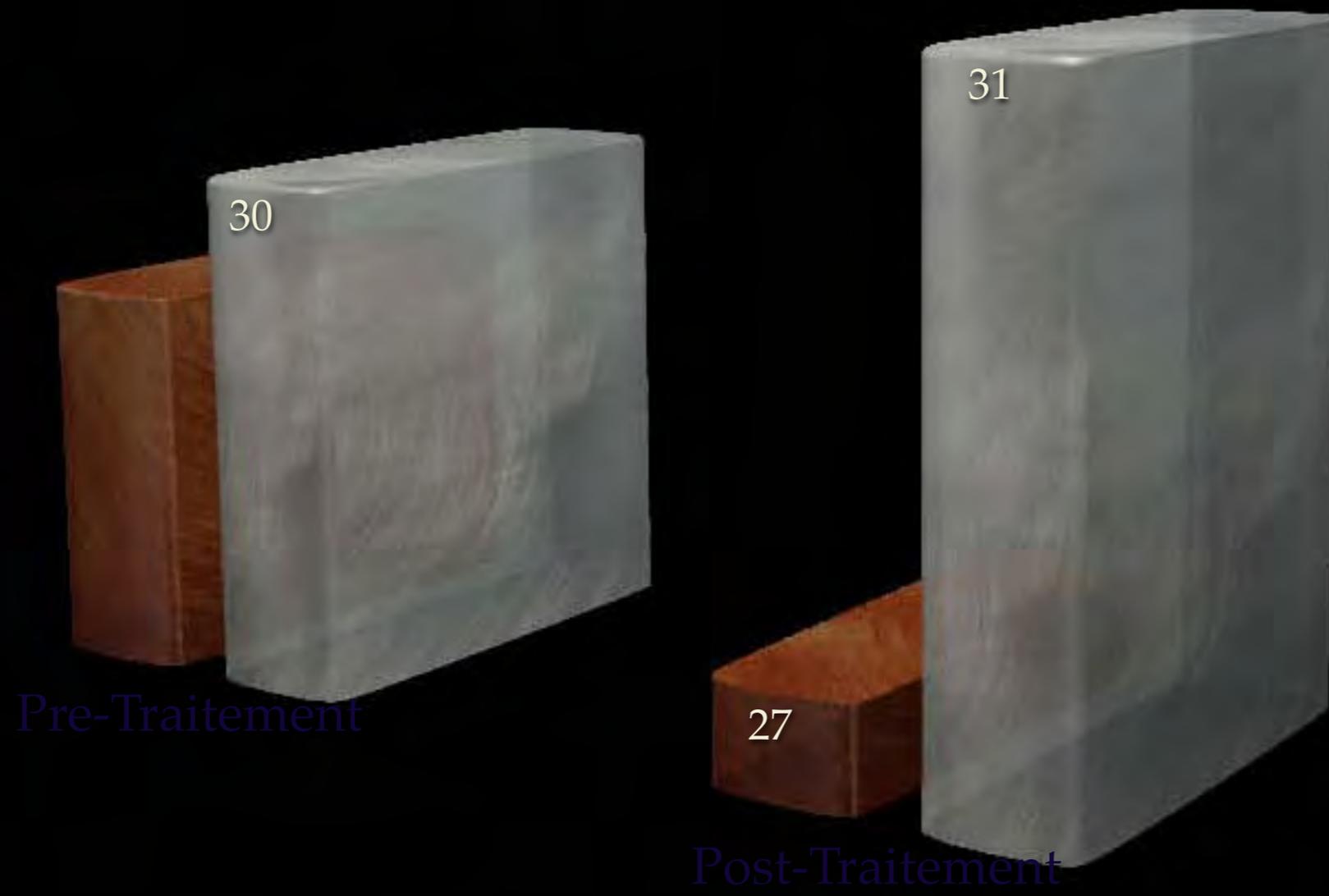
■ Liste Attente

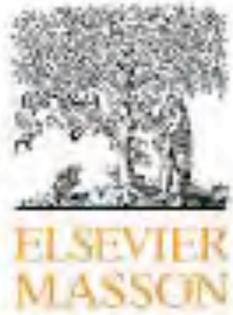


HAM-D

EMDR

Liste Attente





Disponible en ligne sur
SciVerse ScienceDirect
www.sciencedirect.com

Elsevier Masson France
EM|consulte
www.em-consulte.com/en



Original article

Eye movement desensitization and reprocessing (EMDR) therapy in the treatment of victims of domestic violence: A pilot study

Eye movement desensitization and reprocessing (*EMDR*) therapy *dans le traitement des victimes de violences conjugales : étude pilote*

C. Tarquinio^{a,*}, M.-J. Brennstuhl^a, J.A. Rydberg^a, A. Schmitt^a, F. Mouda^b, M. Laurel^b, P. Tarquinio^a

^a APEMAC UE 4360 Research Department, Psychological and Epidemiological Approaches to Chronic Diseases, Health Psychology Team, université de Lorraine, Lorraine, France

^b PsyNCA (EA 4306) Laboratory, Psychology & Neuroscience of Cognition and Affectivity, Rouen University, Rouen, France



5 sessions de 90 minutes

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graph TD; A[5 sessions de 90 minutes] --> B[EMDR (n=12)]; A --> C[Eclectique (n=12)]; A --> D[Contrôle (n=12)];
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EMDR
(n=12)

Eclectique
(n=12)

Contrôle
(n=12)

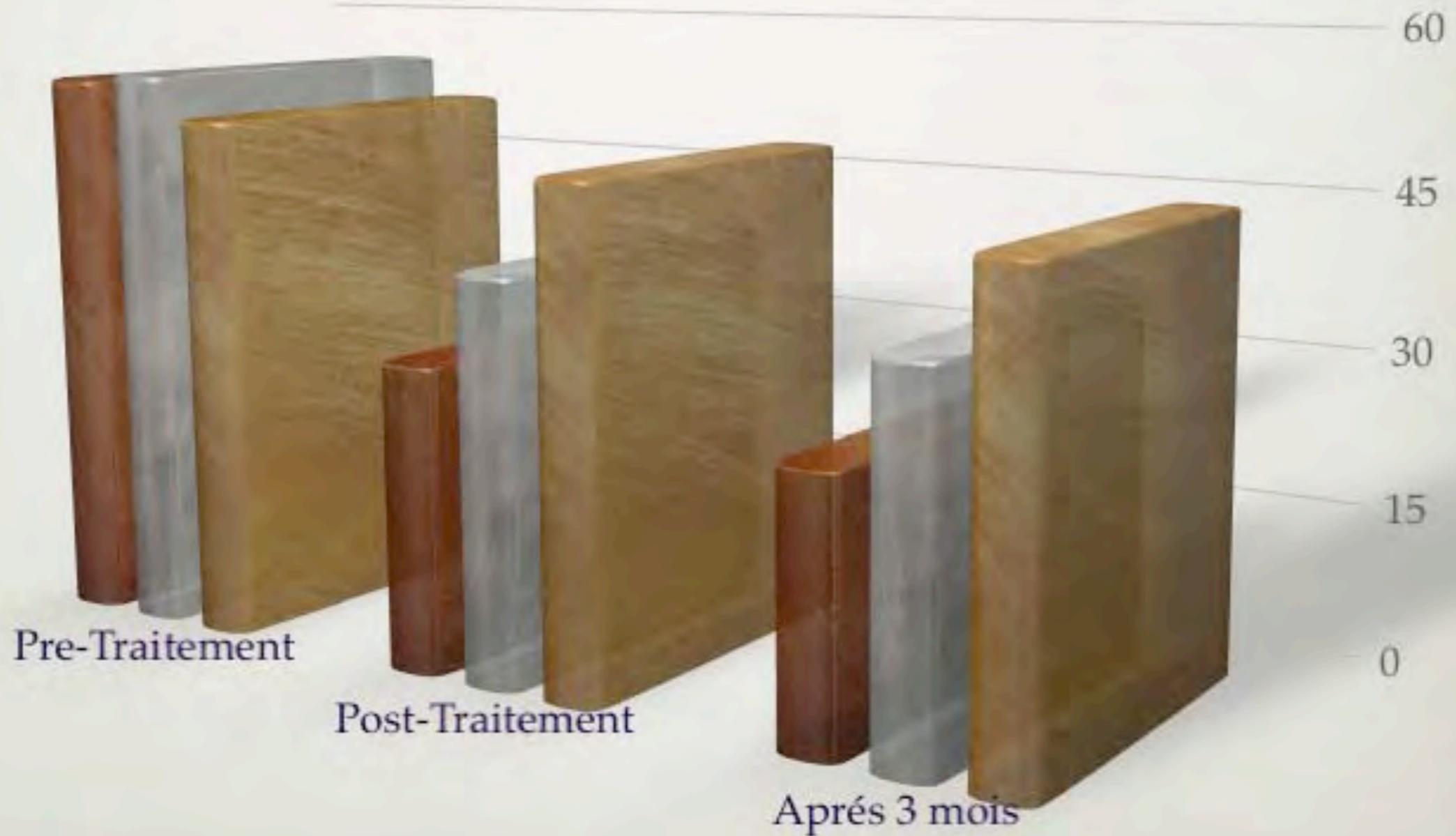
**Victimes de violences
conjugales**

IES-Total

■ EMDR

■ Eclectique

■ Contrôle

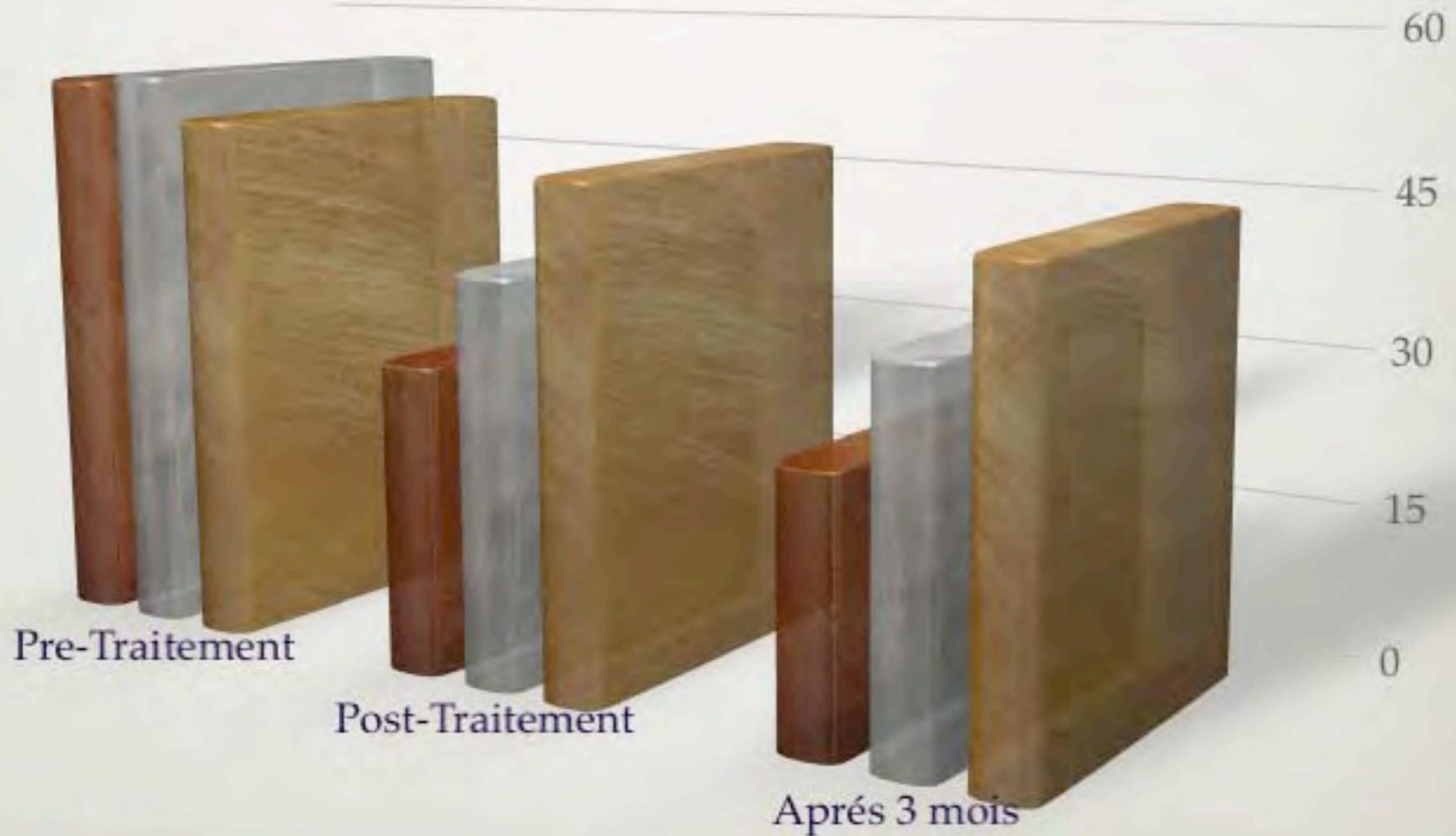


IES-Total

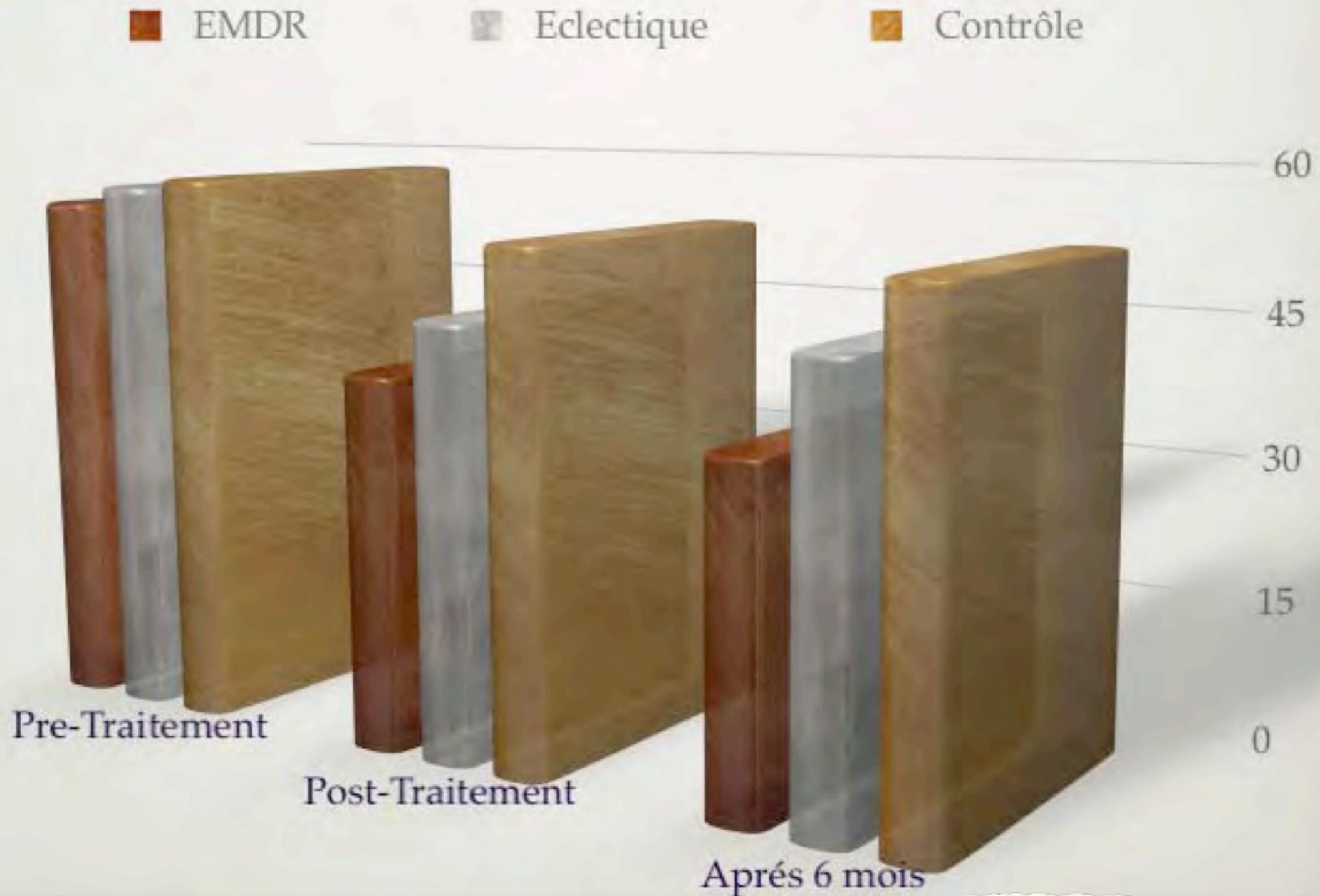
■ EMDR

■ Eclectique

■ Contrôle



STAI- Anxiété

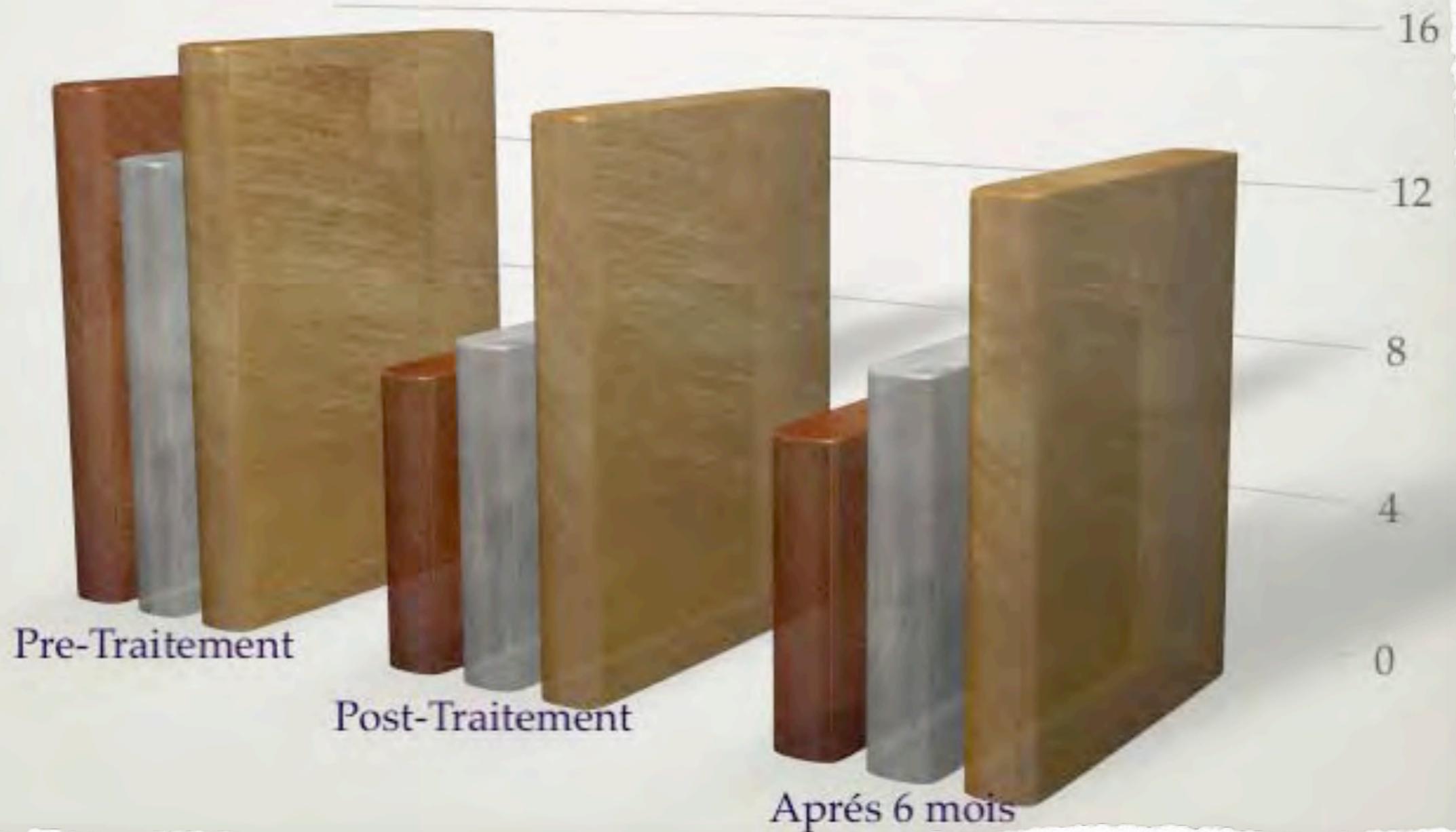


CESD - Dépression

■ EMDR

■ Eclectique

■ Contrôle





2. EMDR et psychophysiologie



Alterations in autonomic tone during trauma exposure using eye movement desensitization and reprocessing (EMDR)—Results of a preliminary investigation

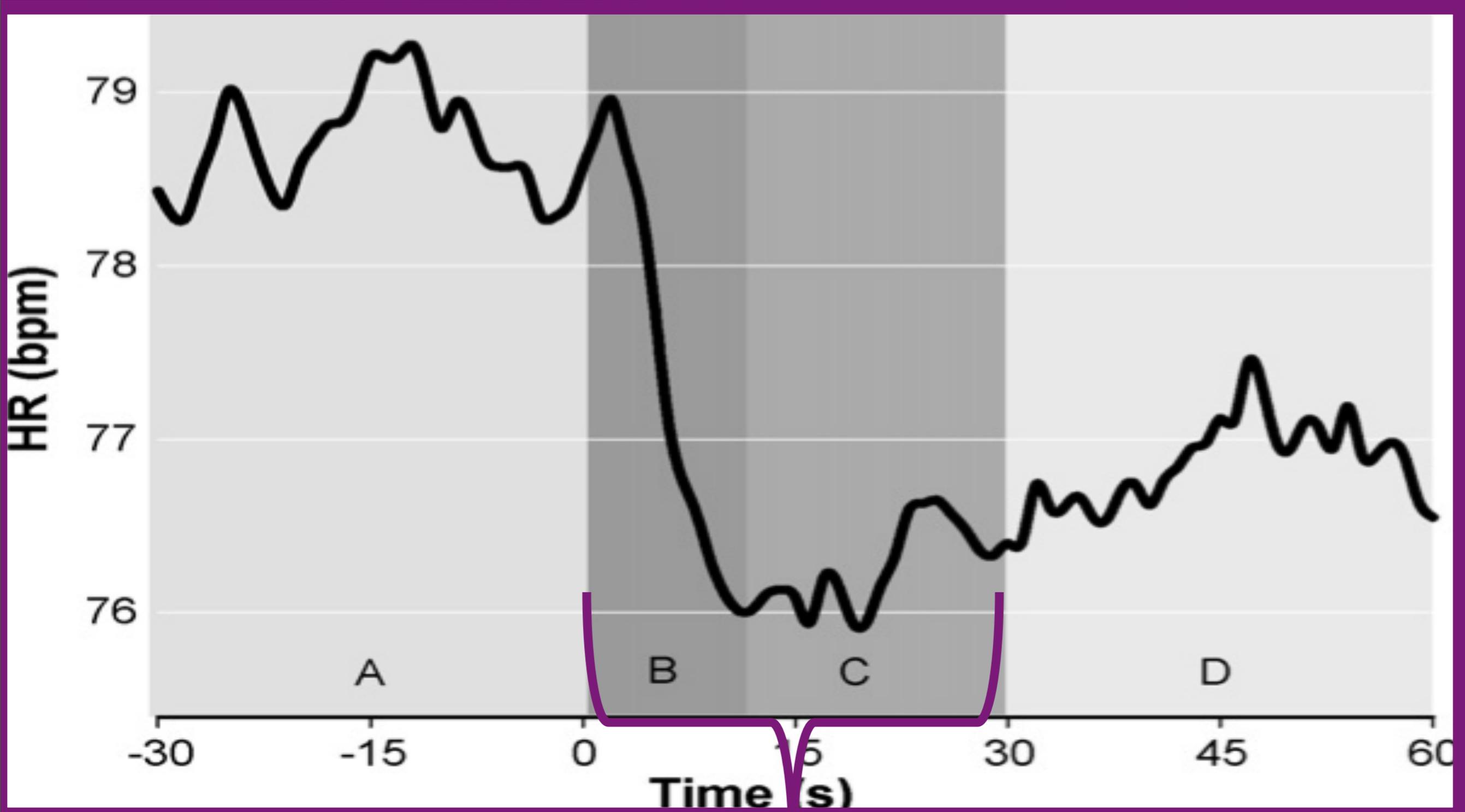
Martin Sack^{a,*}, Wolfgang Lempa^b, Adrian Steinmetz^b,
Friedhelm Lamprecht^b, Arne Hofmann^c

^a*Technical University Munich, Klinikum rechts der Isar, Department of Psychosomatic Medicine,
Langerstrasse 3, 81675 München, Germany*

^b*Hannover Medical School, Department of Psychosomatic Medicine, Carl-Neuberg-Strasse 1, 30625 Hannover, Germany*

^c*University of Cologne, Department of Psychosomatic Medicine, Kerpenerstr. 62, 50937 Köln, Germany*

Received 27 March 2007; received in revised form 8 January 2008; accepted 10 January 2008



Set de MO

Physiological variables pre- and during dual attention stimulation

	Pre-stimulation A: -30 to 0 s		During stimulation B: 0-10 s		C: 10 -30 s		D: 30-60 s		Main effects		Post hoc comparison		
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	<i>F</i> (3,786)	<i>P</i>	A/B	A/C	A/D
HR (bpm)	78.87	10.45	77.86	9.76	76.33	10.31	76.83	10.55	137	<.001	***	***	***
RMSSD (ms)	32.29	19.23	35.73	21.00	30.54	15.91	29.76	16.82	41.4	<.001	***	n.s.	***
PEP (ms)	96.04	20.91	95.74	20.58	95.49	20.58	95.42	20.61	5.2	.023	n.s.	**	n.s.
RESP (bpm)	14.85	2.42	15.26	2.80	15.98	2.98	16.27	3.01	173	<.001	***	***	***

HR = heart rate, RMSSD = root mean square of successive differences, PEP = pre-ejection period, RESP = respiration frequency. Anova repeated measures, post hoc comparison (Bonferroni corrected for multiple testing): n.s. = non significant, ***P* < .01, ****P* < .001.

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ELSEVIER

Journal of Anxiety Disorders 22 (2008) 622–634

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OF
**Anxiety
Disorders**

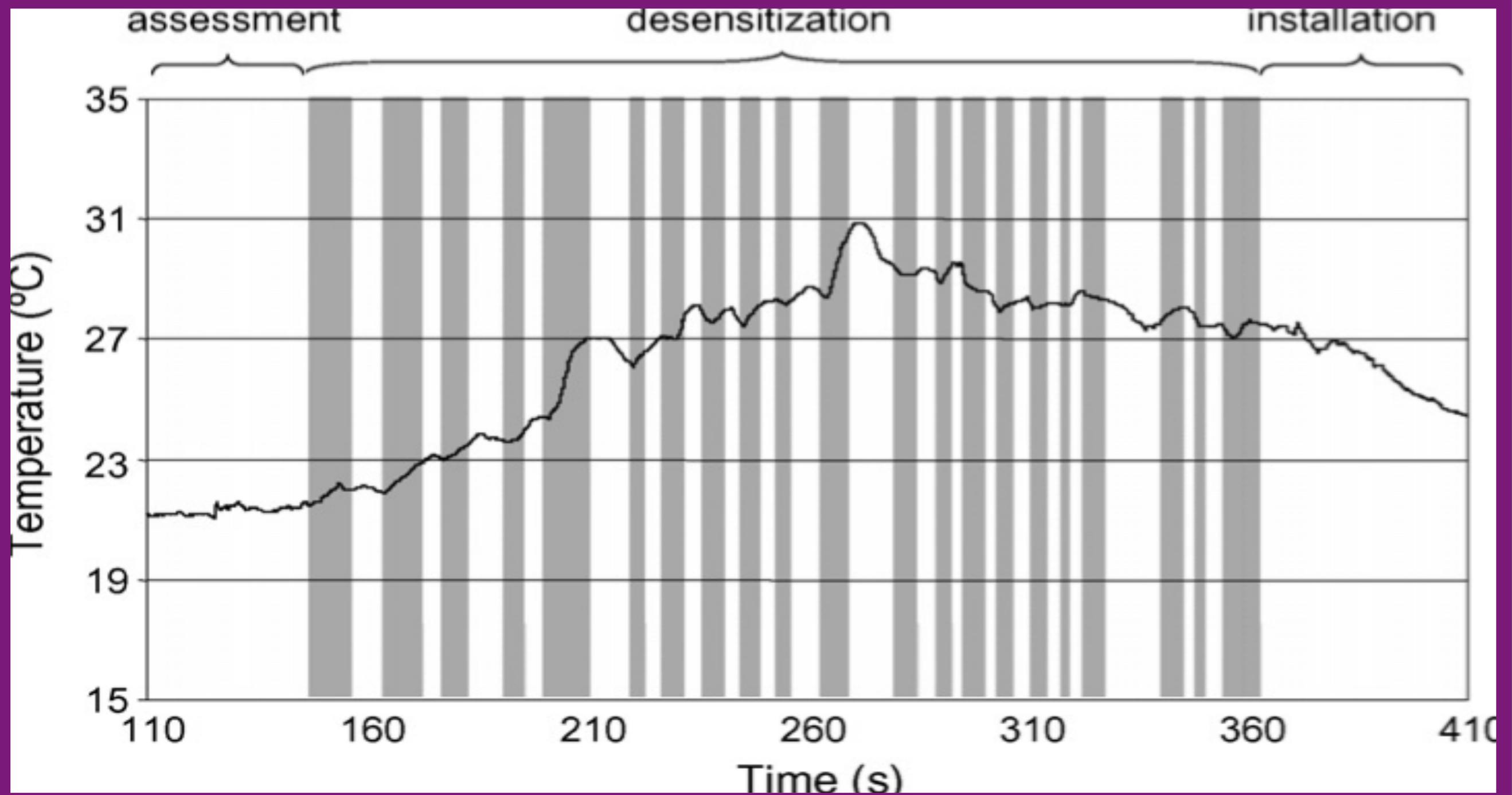
Physiological correlates of eye movement desensitization and reprocessing

Ulf O.E. Elofsson^{a,*}, Bo von Schèele^b, Töres Theorell^a, Hans Peter Söndergaard^a

^a*National Institute for Psychosocial Factors and Health (IPM) & Karolinska Institutet, Stockholm, Sweden*

^b*Institute for Psychophysiological Behavioral Medicine, Söderhamn, Sweden*

Received 15 January 2007; received in revised form 23 May 2007; accepted 31 May 2007



Augmentation rapide de la t° dès le début des MO et à une baisse dès le fin des MO

Measure	Band	Baseline		Stimulation		Post-stimulation		Main effects	
		Pre	Post	-50 to 0 s	0-50 s	-50 to 0 s	0-50 s	<i>F</i>	<i>P</i> -value
Ratio	LF/HF	5.01	5.70	6.61	4.27	4.94	6.15	2.51	0.04
		4.43	5.20	4.49	2.46	2.54	3.33		
		a	ab	b ^b	a ^a	ab	b ^a		

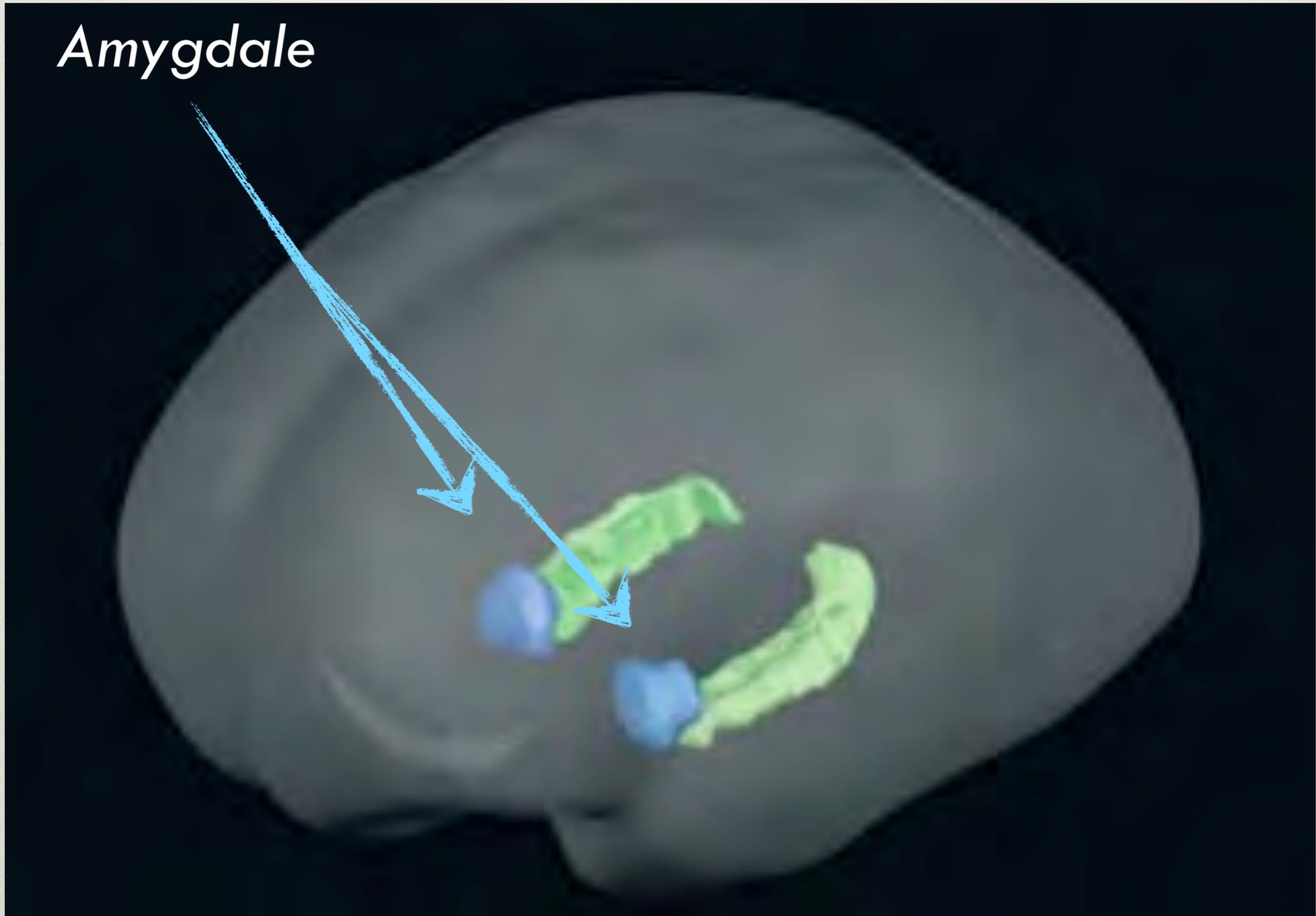
Measure	Band	Baseline		Stimulation		Post-stimulation		Main effects	
		Pre	Post	-50 to 0 s	0-50 s	-50 to 0 s	0-50 s	<i>F</i>	<i>P</i> -value
Ratio	LF/HF	5.01	5.70	6.61	4.27	4.94	6.15	2.51	0.04
		4.43	5.20	4.49	2.46	2.54	3.33		
		a	ab	b ^b	a ^a	ab	b ^a		



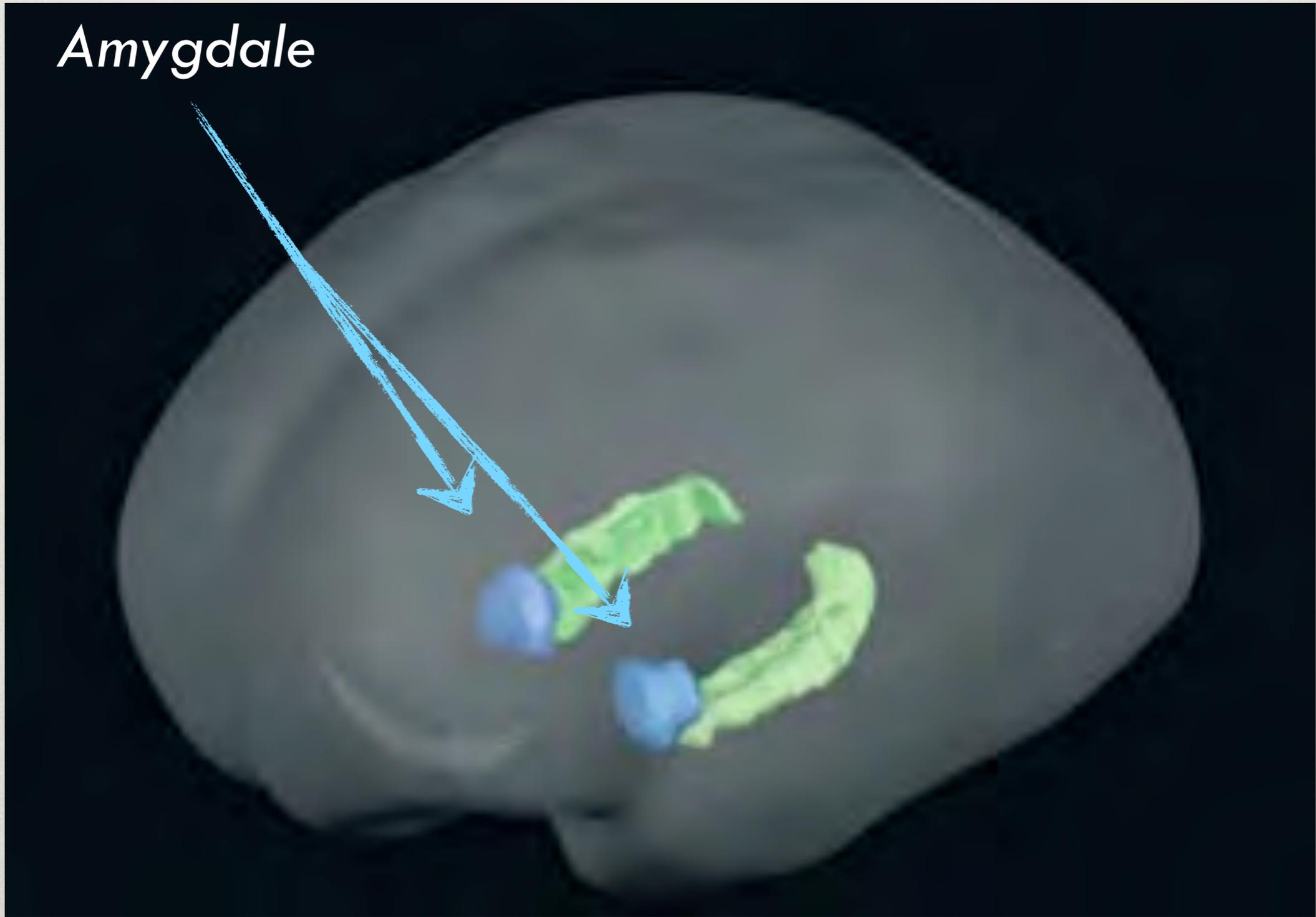
2. EMDR et fonctionnement cérébral



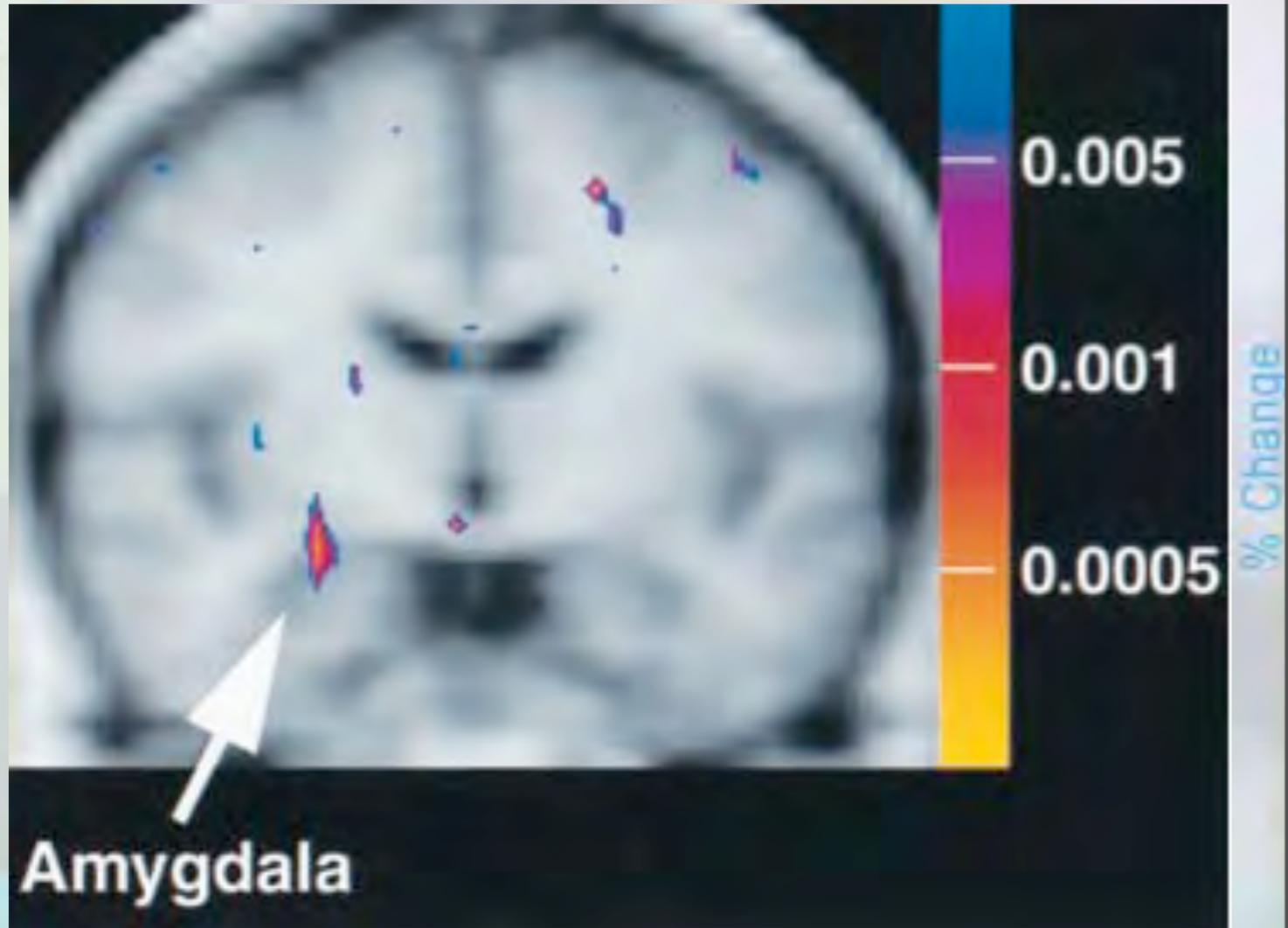
Amygdale



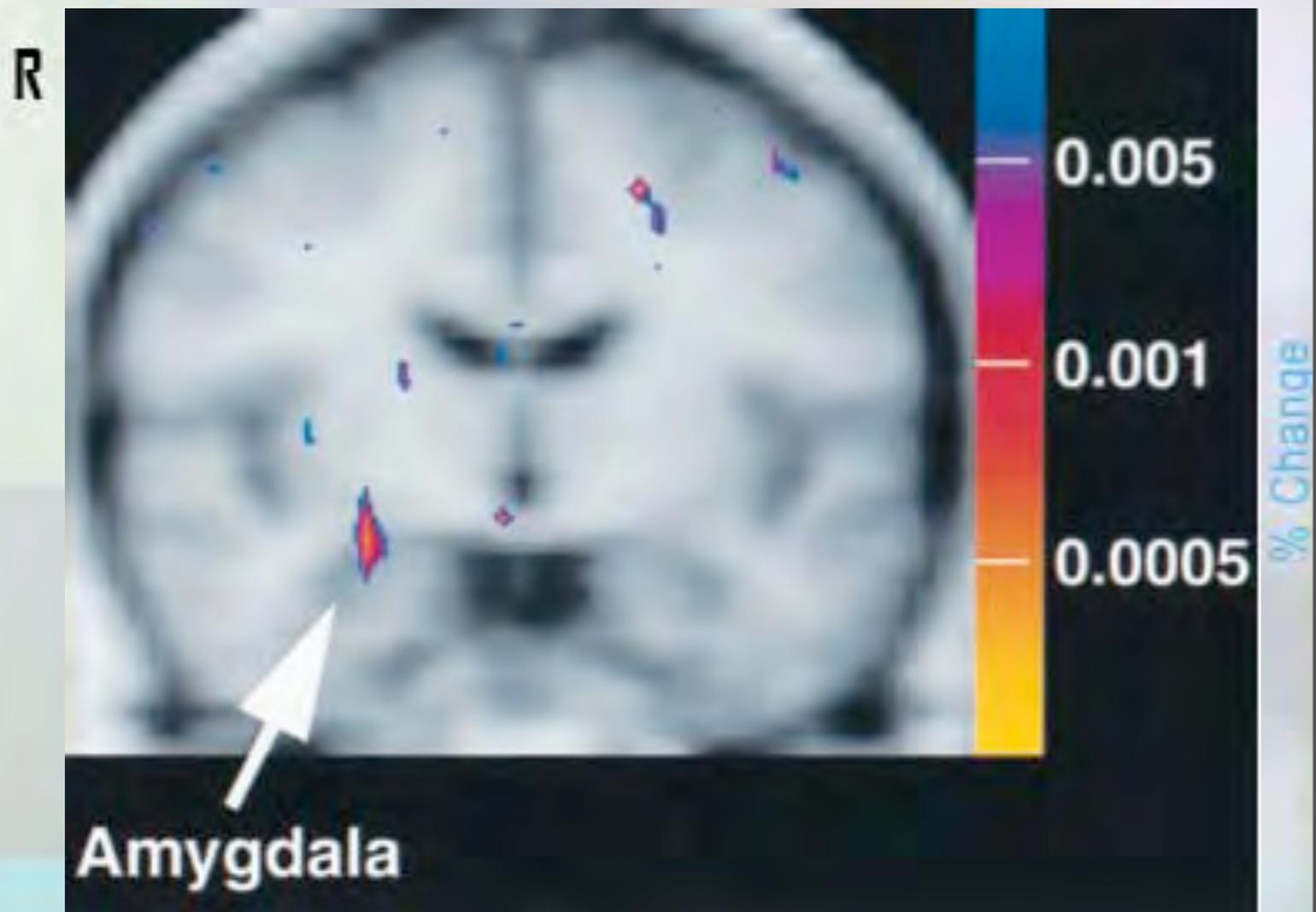
Amygdale



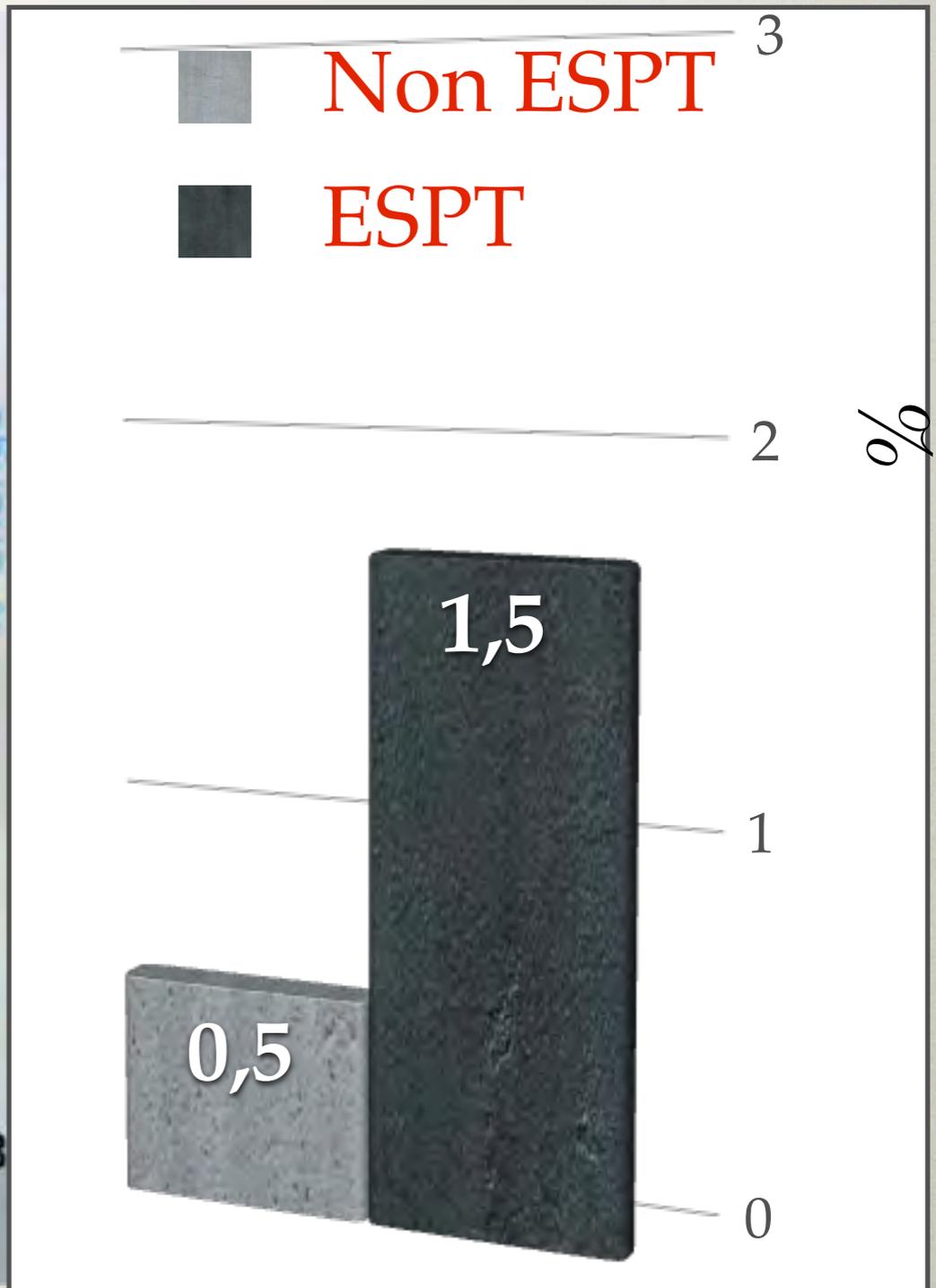
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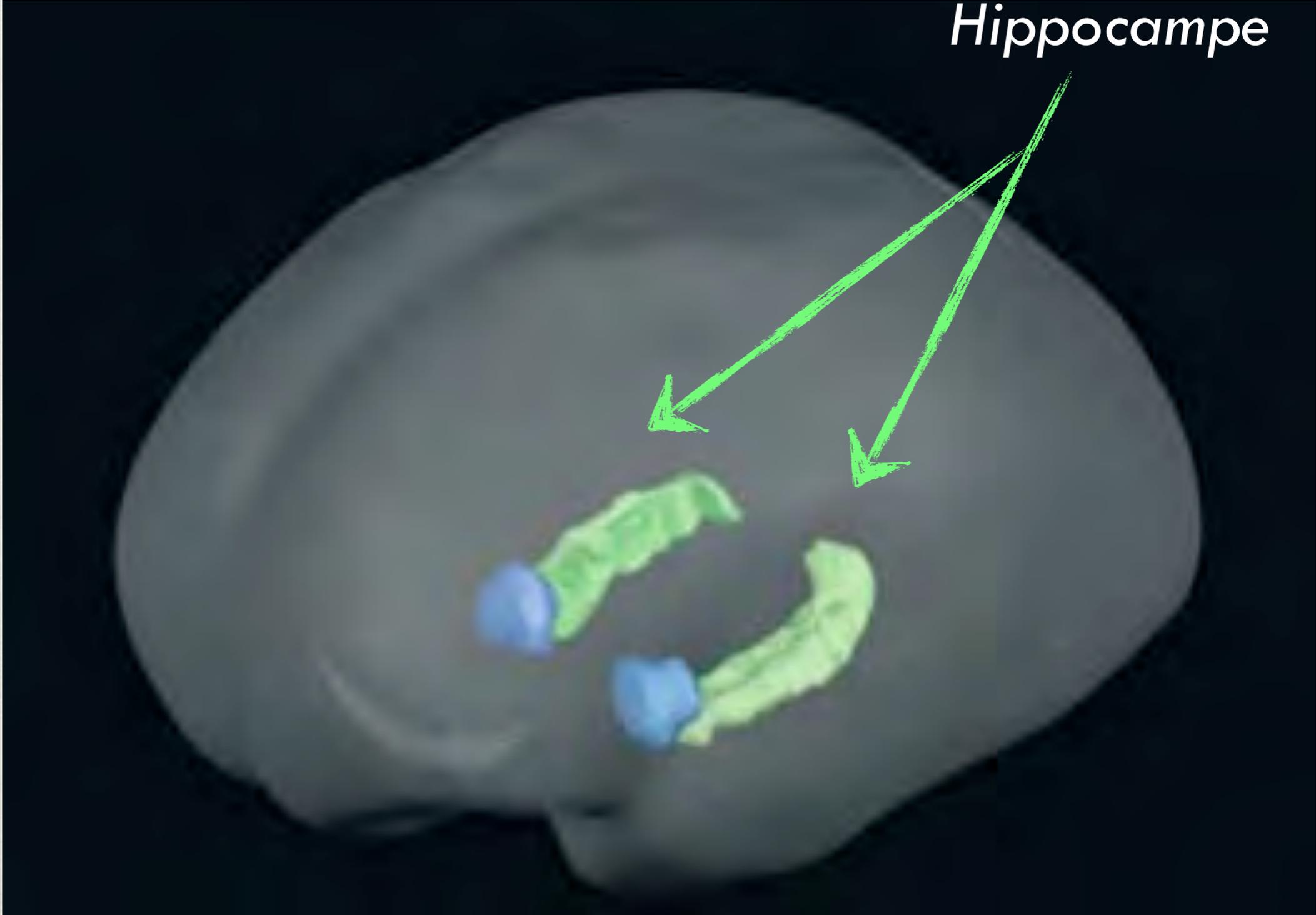
Rauch S.L. et al. (1989). *Arch Gen Psychiatry*, 46: 48



Rauch S.L. et al. (1989). *Arch Gen Psychiatry*, 46: 48







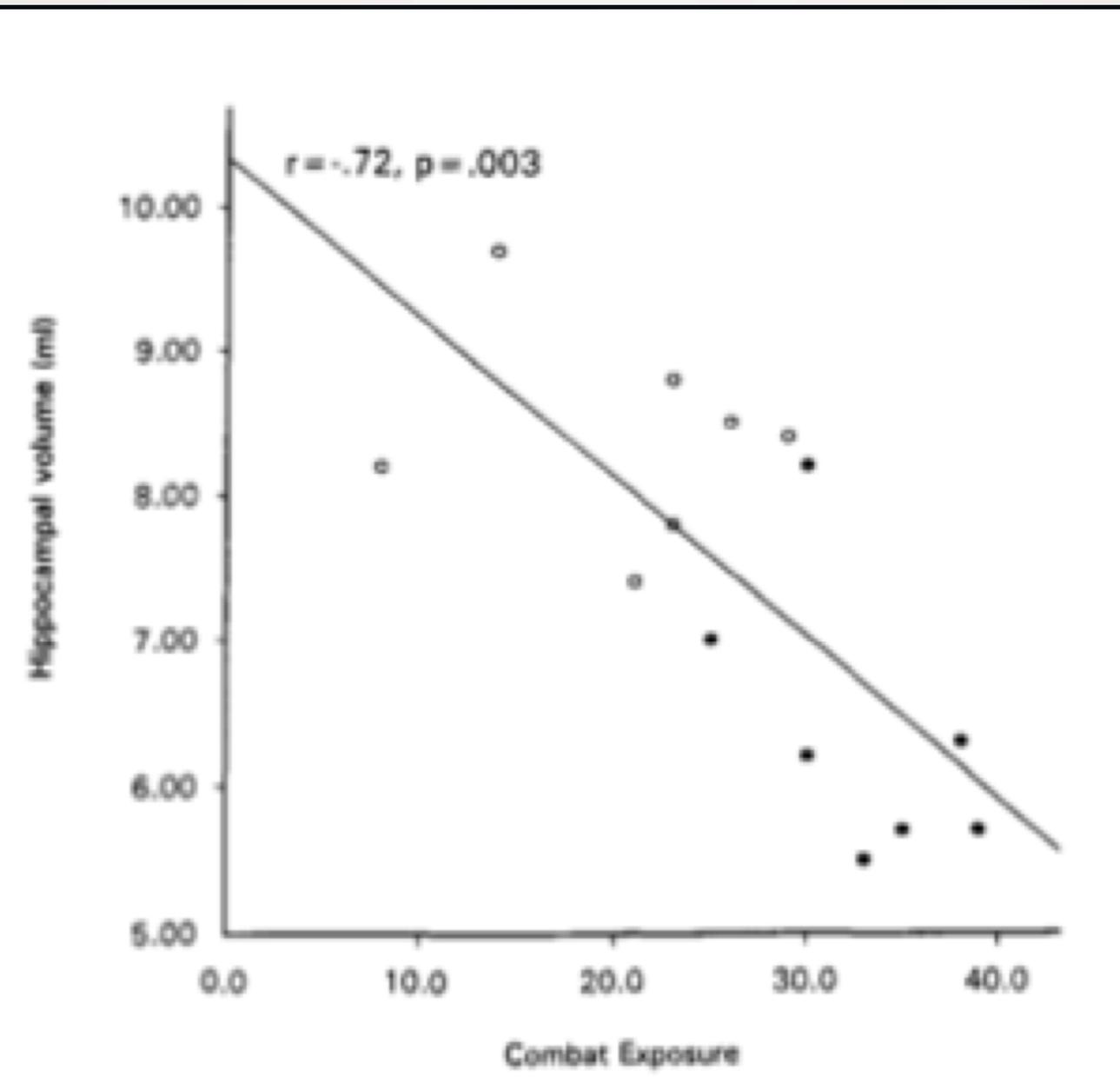
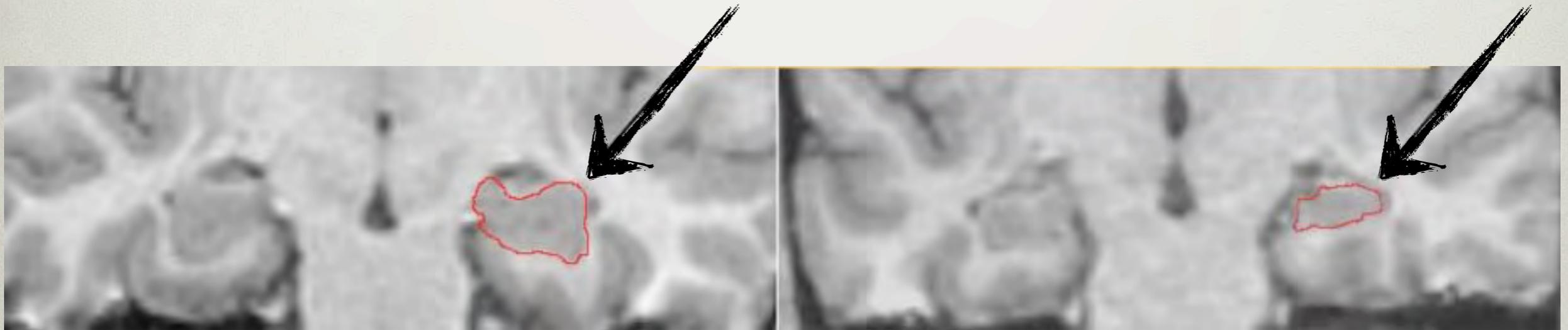


Figure 2. Total hippocampal volume as a function of combat exposure scale score. Closed circles: PTSD subjects; open circles: non-PTSD subjects.

Sujet contrôle

Sujet ESPT



Yehuda & al, 1995; Bremner & al., 1997; Vermetten & al., 2006

Réduction du gyrus cingulaire antérieur et ESPT

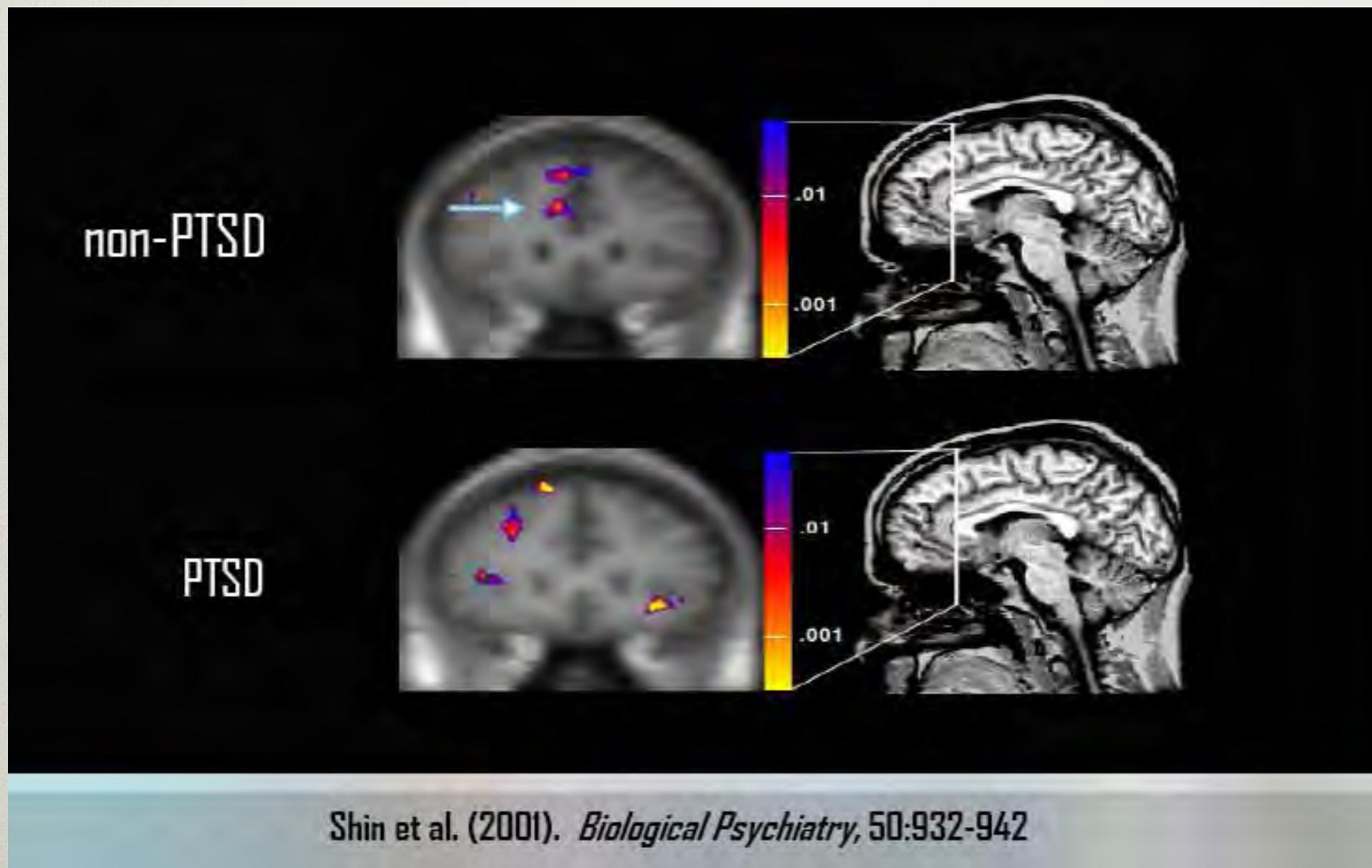
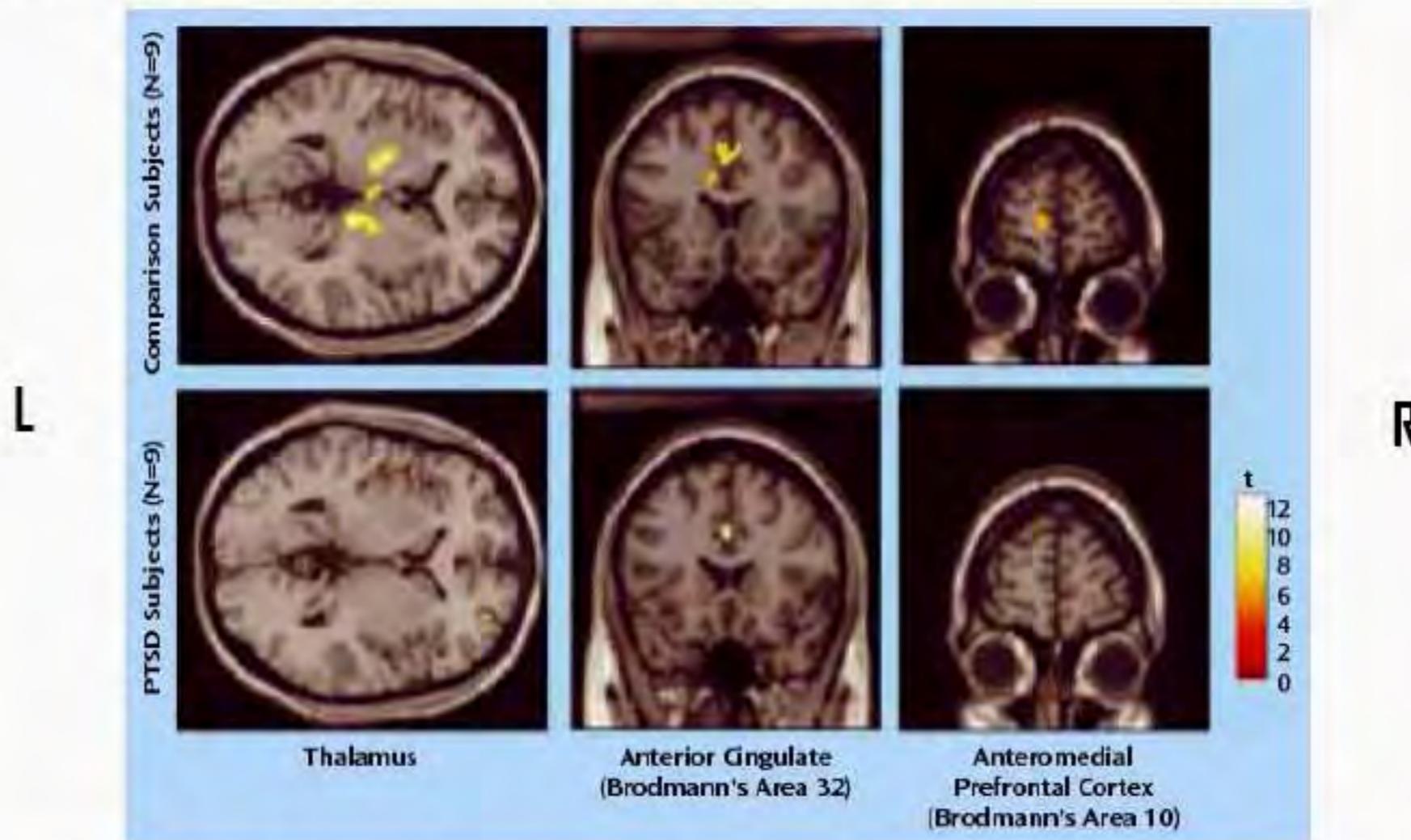


FIGURE 1. Brain Activation Sites^a in Traumatized Subjects With and Without PTSD



^a Areas of significantly ($p < 0.001$) increased activation during the final 30 seconds of a 60-second period of recalling a traumatic event, relative to average baseline activation 60 seconds before each recollection of the traumatic event, superimposed on T₁-weighted magnetic resonance imaging templates.

Lanius, R., et al. (2001). *American Journal of Psychiatry*, 158: 1920-1922.



Thinner prefrontal cortex in veterans with posttraumatic stress disorder

Elbert Geuze,^{a,b,*} Herman G.M. Westenberg,^b Armin Heinecke,^c
Carien S. de Kloet,^a Rainer Goebel,^{c,d} and Eric Vermetten^{a,b}

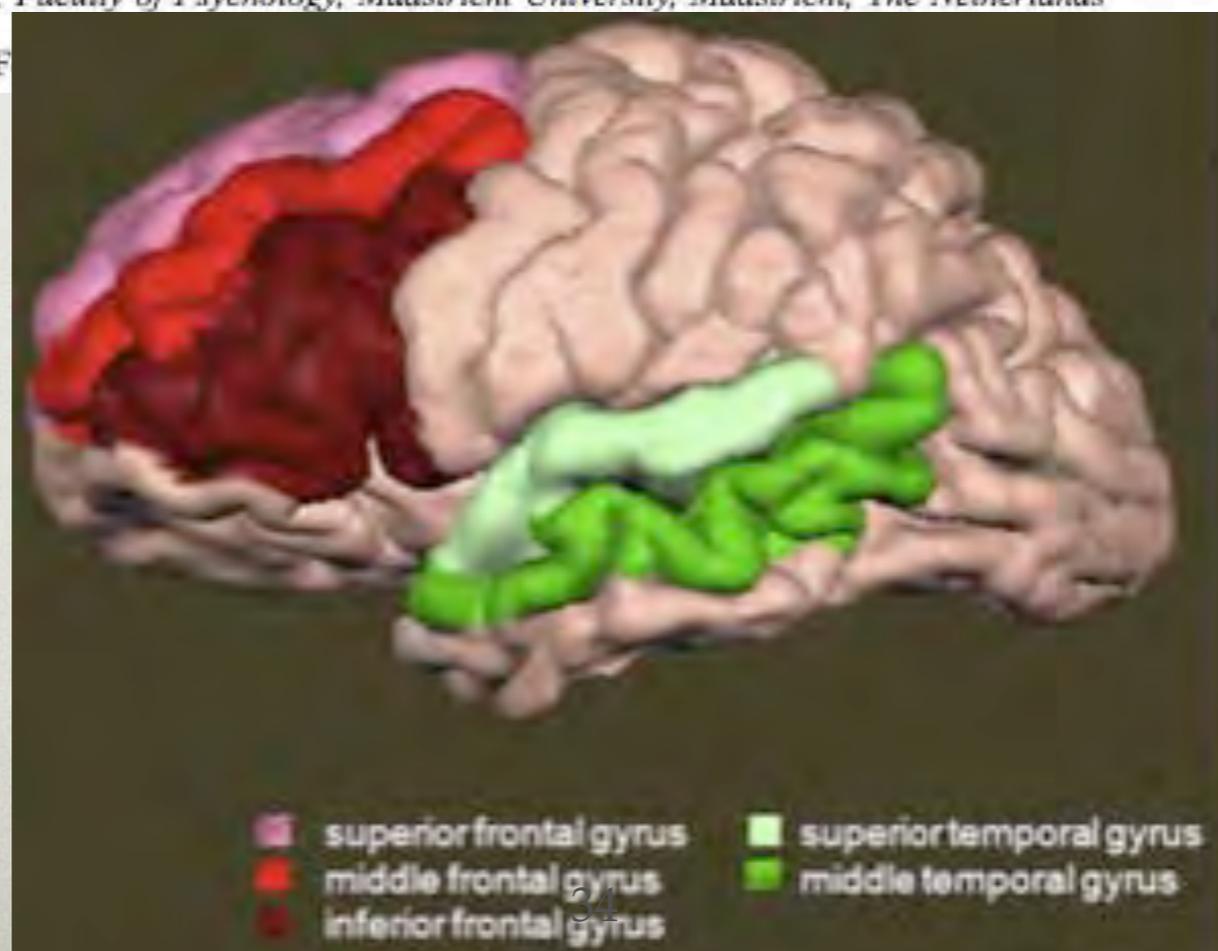
^aResearch Centre, Military Mental Healthcare, Ministry of Defence, Utrecht, The Netherlands

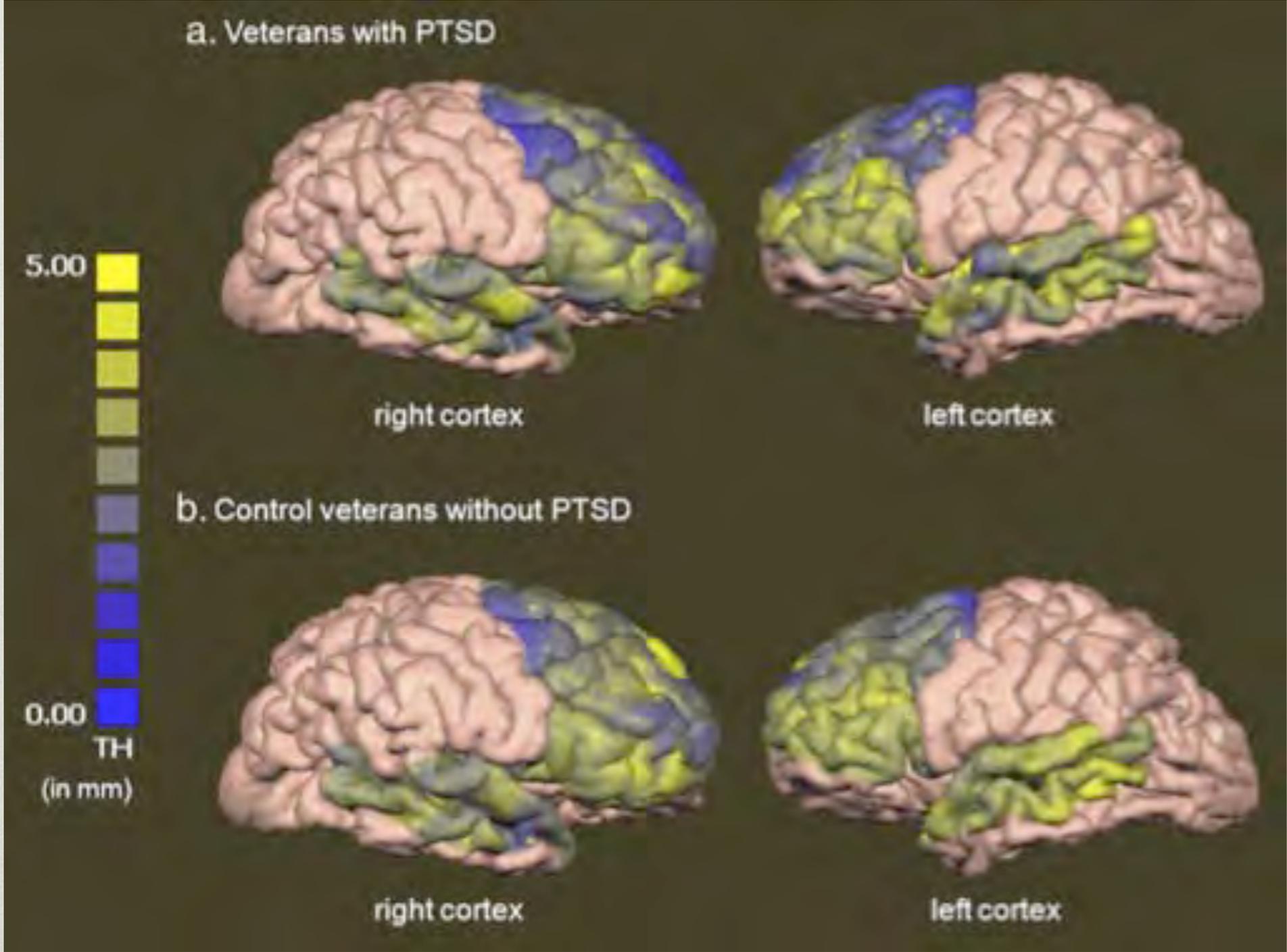
^bDepartment of Psychiatry, Rudolf Magnus Institute of Neuroscience, Utrecht University Medical Centre, Utrecht, The Netherlands

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^dDepartment of Cognitive Neuroscience, Faculty of Psychology, Maastricht University, Maastricht, The Netherlands

Received 19 October 2007; revised 27 February 2008; accepted 27 February 2008





L'imagerie par résonance magnétique fonctionnelle (**IRMf**) consiste à mesurer un signal qui reflète le taux d'oxygénation du sang dans le cerveau. Ainsi, il est possible, par cette méthode, de connaître avec une grande précision quelles régions du cerveau sont spécialement actives lors d'une tâche donnée.

La tomographie par émission de positrons (**TEP**) ou SPECT consiste à mesurer les modifications du débit sanguin au moyen d'un traceur radioactif qu'il faut préalablement injecter par voie intraveineuse.

The Journal of Neuropsychiatry and Clinical Neurosciences, VOL. 17, No. 4

REGULAR ARTICLE | November 01, 2005

***High-Resolution Brain SPECT Imaging and Eye Movement
Desensitization and Reprocessing in Police Officers With PTSD***

Karen Lansing, M.F.T, B.C.E.T.S.; Daniel G. Amen, M.D.; Chris Hanks, Ph.D.; Lisa Rudy, B.A.

The Journal of Neuropsychiatry and Clinical Neurosciences 2005;17:526-532.

doi:10.1176/appi.neuropsych.17.4.526

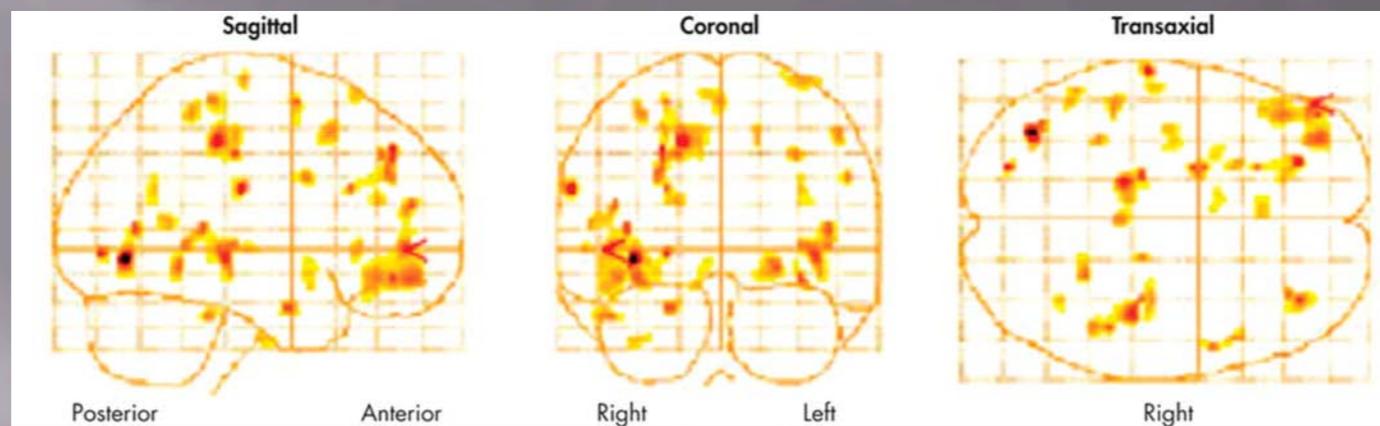


TABLE 1. Summary of SPM Results: Voxel-Level Gray Matter Activations and Deactivations from Pre- to Post-EMDR (N = 6)

Brain Region	Talairach Coordinates (x, y, z)	Valence	t-value
Occipital lobe			
Right lingual gyrus (BA 18)	18, -80, -12	Deactivation	13.84*
Left cuneus/precuneus	0, -74, 30	Deactivation	6.68*
Sub-lobar thalamus			
Right pulvinar	22, -28, 10	Deactivation	13.14*
Frontal lobe			
Right precentral gyrus (BA 4)	52, -12, 42	Deactivation	10.23*
Left middle frontal gyrus (BA 11)	-44, 36, -12	Activation	6.81*
Left inferior frontal gyrus (BA 44)	-48, 48, 0	Activation	7.92*
Left superior frontal gyrus (BA 8)	-24, 42, 42	Activation	9.55*
Left medial ventral frontal gyrus (BA 9)	-18, 36, 20	Activation	5.77**
Parietal lobe			
Left postcentral gyrus (BA 40)	-52, -28, 50	Deactivation	7.68*

*Significant at $p = <0.001$, uncorrected for multiple comparisons

** Significant at $p = <0.005$, uncorrected for multiple comparisons

SPM = statistical parametric mapping

BA = Brodmann's area

Lansing & al. (2005) ont travaillé sur l'activation cérébrale du cerveau de 6 policiers traumatisés avant et après traitement EMDR. Ils montrent une diminution du flux sanguin, des signes clinique de l'ESPT.

Changes in the Regional Cerebral Perfusion After Eye Movement Desensitization and Reprocessing

A SPECT Study of Two Cases

Dong-Hoon Oh

Joonho Choi

Hanyang University, Seoul, South Korea

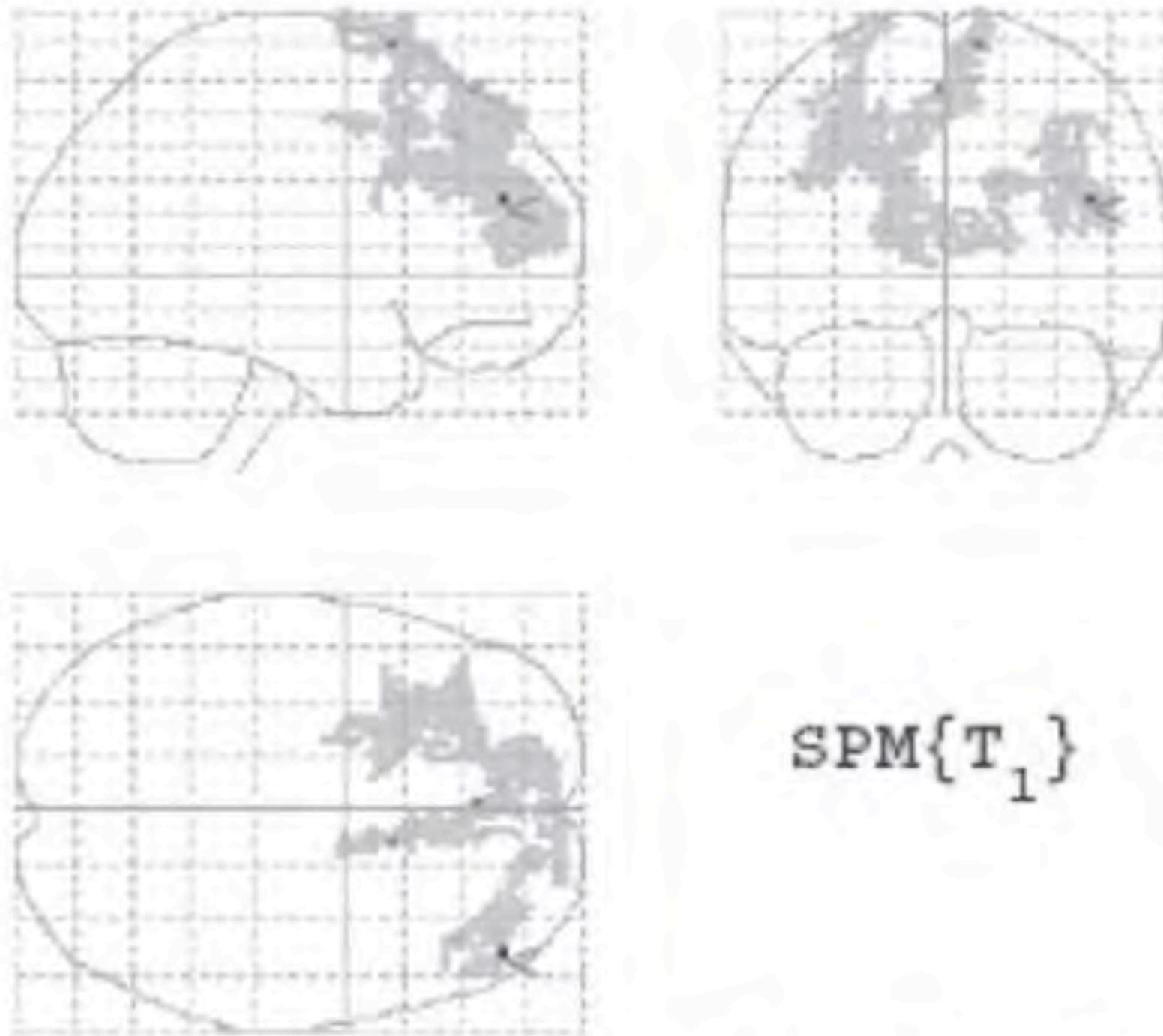


FIGURE 1. Regions of increased cerebral blood flow after EMDR treatment. Significant activations in the right middle frontal gyrus and the right superior frontal gyrus (BA 6, 8, 9, 10, and 46) and also in the left medial frontal and right superior frontal gyrus (BA 8 and 10). The arrow indicates the right middle frontal gyrus, the most significantly activated area. BA = Broadmann area; SPM = statistical parametric mapping.

Augmentation de l'afflux sanguin

Studio di valutazione dell'efficacia clinica e neurobiologica
dell'EMDR in pazienti affetti da disturbo da stress post-traumatico
*Evaluation study of clinical and neurobiological efficacy of EMDR in patients
suffering from post-traumatic stress disorder*

LETIZIA BOSSINI¹, ILARIA CASOLARO¹, EMILIANO SANTARNECCHI², CLAUDIA CATERINI¹,
DESPINA KOUKOUNA¹, ISABEL FERNANDEZ³, ANDREA FAGIOLINI¹

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¹Dipartimento di Neuroscienze, Sezione di Psichiatria, Università di Siena

²Dipartimento di Neuroscienze, Sezione di Neurologia, Università di Siena

³Psicologo, Psicoterapeuta, Presidente della Associazione per l'EMDR in Italia, Centro Ricerca e Studi in Psicotraumatologia, Milano

Tabella 1. Davidson Trauma Scale (range 0-136). Confronto fra punteggio totale prima e dopo 3 mesi di terapia EMDR

	Pre-EMDR	Post-EMDR	p
DTS Totale	75,78±21,74	19,3±15,5	< 0,001

Tabella 2. RMI strutturale. Confronto fra volumi ippocampali prima e dopo 3 mesi di terapia EMDR

	Pre-EMDR (mm³)	Post-EMDR (mm³)	p
Ippocampo sinistro	2894,60±497,41	3083,70±378,09	0,011
Ippocampo destro	3158,52±365,03	3357,90±451,71	0,010

Mesure volumétrique de l'hippocampe (29 sujets ESPT et 30 sujets contrôles) pré, post et 3 mois)

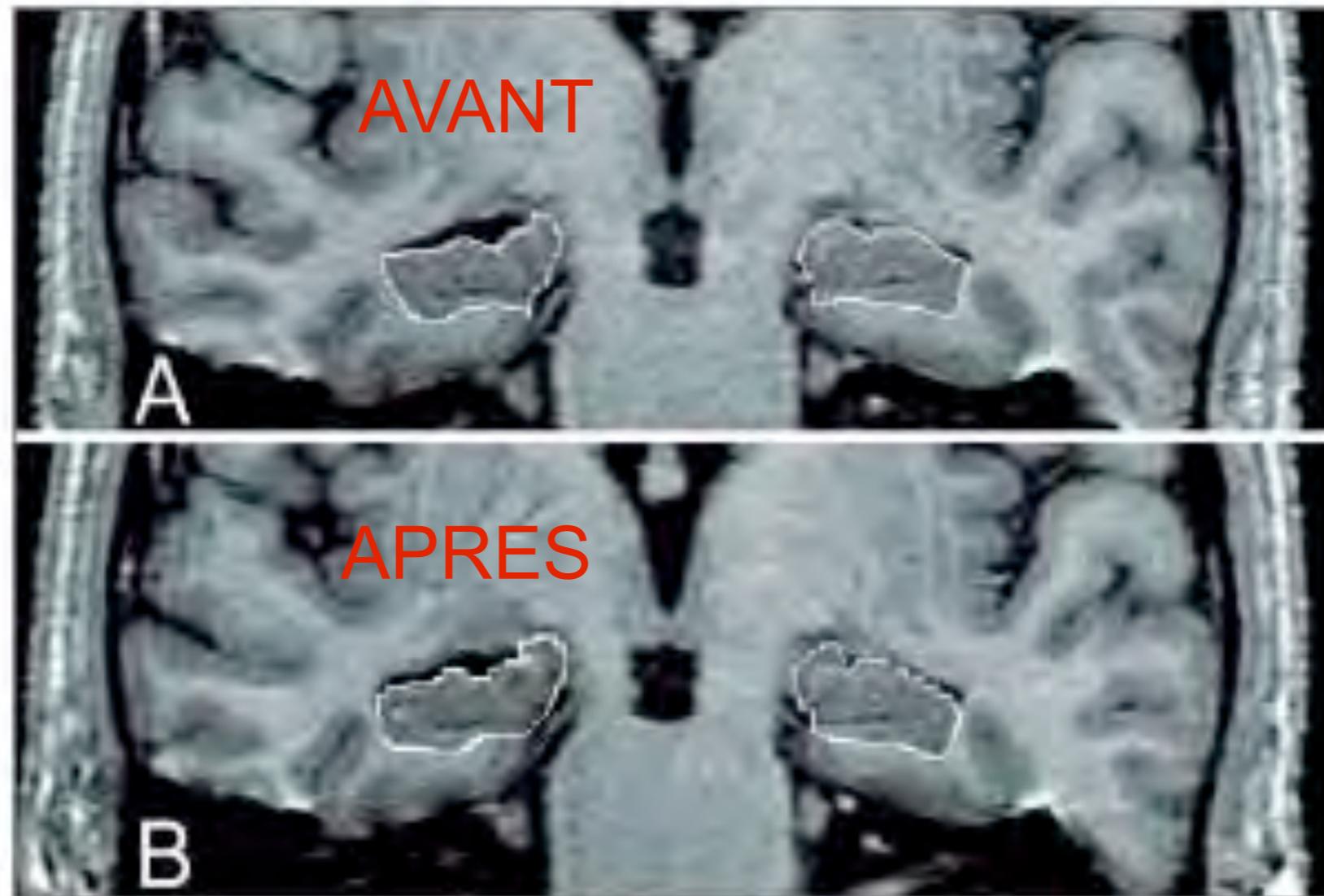


Figura 1. RMN in sezione coronale. A: prima del trattamento con EMDR. B: dopo il trattamento con EMDR ($p = 0,01$).



4. Vers de nouvelles problématiques

Les protocoles des événements récents

- The Recent Event protocol [**RE**] (F. Shapiro, 1995, 2001),
- The EMD protocol (F. Shapiro, 1987, 2004)
- The Emergency Response Procedure [**ERP**] (Quinn, 2004)
- The Recent Traumatic Episode Protocol [**R-TEP**] (E. Shapiro & Laub 2008)
- The Protocol for Recent Critical Incidents [**EMDR-PRECI**] (Jarero, Artigas & Luber, 2011)
- **URG-EMDR** (Tarquinio & al. 2013)



The Effect of Single-Session Modified EMDR on Acute Stress Syndromes

Ilan Kutz

*Meir General Hospital, Kfar Saba, Israel
Sackler School of Medicine, Tel Aviv University, Israel*

Victor Resnik

Meir General Hospital, Kfar Saba, Israel

Rachel Dekel

Louis and Gabi Weisfeld School of Social Work, Bar Ilan University, Ramat Gan, Israel

TABLE 1. Participant Characteristics

Participant characteristics	Terror victims (<i>n</i> = 40)	Accident victims (<i>n</i> = 46)
Gender	f 22 m 18	f 26 m 20
Age	18–64	18–81
Inpatient/ Outpatients	Outpatients only	36 inpatients: 10 outpatients
Physical injury	None or insignificant	All injured
Former exposure to trauma and other risk factors of PTSD	12 (30%)	10 (22%)

TABLE 3. The Effect of Single-Session Modified EMDR on Terror Victims Group

Mode of Response	Within Session			Significance of Pre/Post Difference	4-Week Follow-Up		Significance of Post/Follow-Up Difference	6-Month Follow-Up	
	N	PRE SUD <i>SD</i> =	POST SUD <i>SD</i> =		N	SUD <i>SD</i> =		N	SUD <i>SD</i> =
Immediate relief	16	7.5 <i>SD</i> = 1.2	0.9 <i>SD</i> = 0.8	$P < .0001$	16	1.0 <i>SD</i> = 1.36	$P = .75$	14	1.4 <i>SD</i> = 1.2
Substantial relief	12	8.2 <i>SD</i> = 1.03	3.7 <i>SD</i> = 0.49	$P < .0001$	12	2.5 <i>SD</i> = 3.3	$P < .05$	12	1.8 ^a <i>SD</i> = 2.7
No relief	12	8.6 <i>SD</i> = 1.07	8.3 <i>SD</i> = 1.15	$P = .47$	12	6.67 ^a <i>SD</i> = 1.50		8	5.3 ^a <i>SD</i> = 2.05

^a Results reflect addition of multiple sessions of EMDR and/or additional non-EMDR interventions.

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Mode of Response	Within Session				4-Week Follow-Up			6-Month Follow-Up	
	N	PRE SUD SD	POST SUD SD	Significance of Pre/Post Difference	N	SUD SD	Significance of Post/Follow- Up Difference	N	SUD SD
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DOI: 10.3109/01612840.2012.759633

informa
healthcare

Benefits of Immediate EMDR vs. Eclectic Therapy Intervention for Victims of Physical Violence and Accidents at the Workplace: A Pilot Study

**Marie-Jo Brennstuhl, PhD, Cyril Tarquinio, Professor, Lionel Strub, PhD,
Sebastien Montel, Professor, and Jenny Ann Rydberg, PhD**

Université de Lorraine, Psychology of Health Team, Metz, France

Zoi Kapoula, Professor

Hôpital Européen Georges Pompidou, Service d'Ophtalmologie-ORL-Stomatologie, Paris, France



1 session

URG-EMDR
(n=19)

Eclectic
(n=15)

Agressions au travail

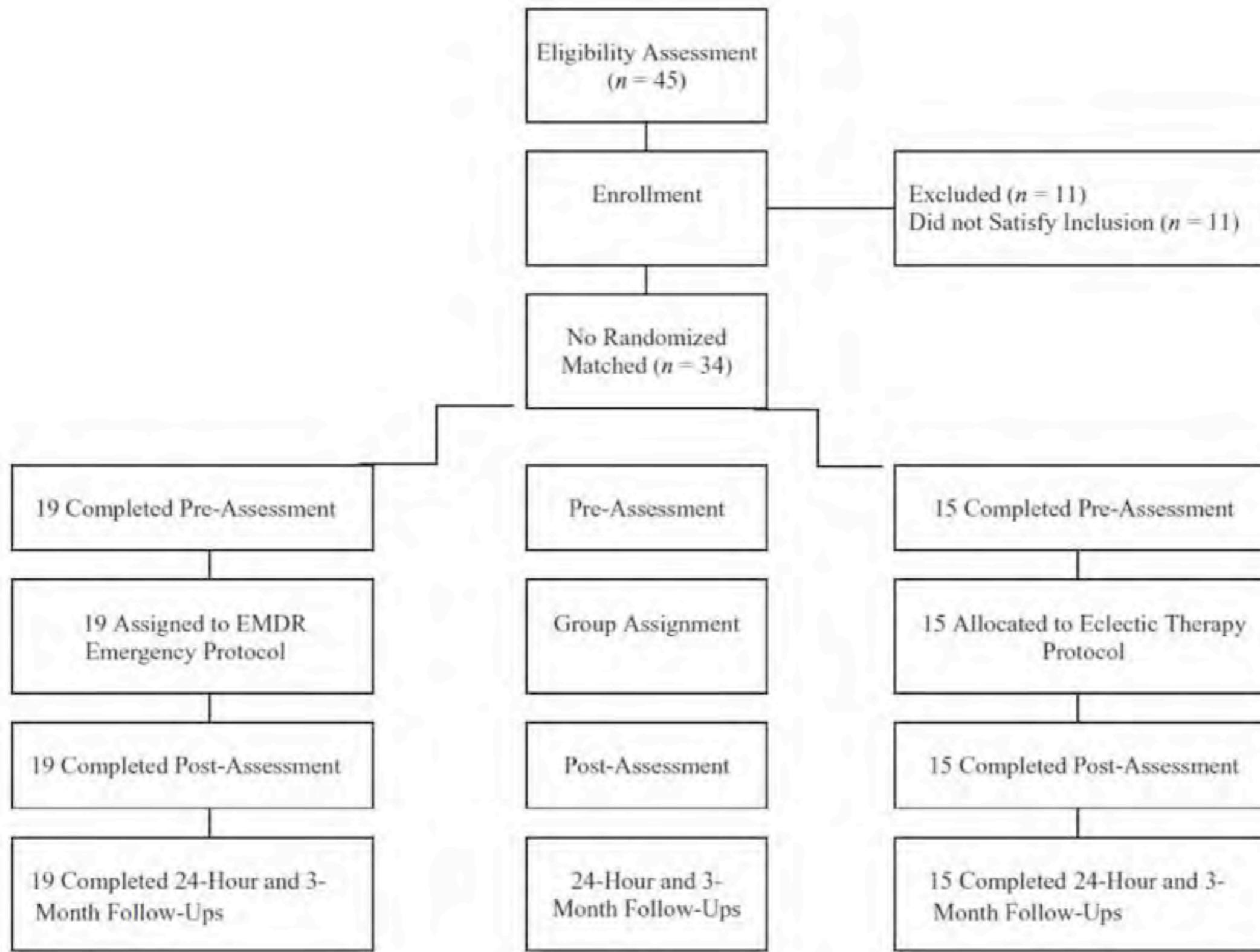


FIGURE 1. Consort Flowchart

Variable Group	Pretest	24-Hour Follow-Up	3-Month Follow-Up
Total PCL-S			
EMDR Group	51.2 (11.2)	27.3 ^a (6.3)	25.5 ^a (5.4)
Eclectic Group	51.46 (11.5)	49.1 ^b (9.9)	36.3 ^b (8.7)
Cohen's d		2.66	1.64
PCL-S Intrusion			
EMDR Group	14.8 (4.2)	8.5 ^a (2.01)	8.1 ^a (1.8)
Eclectic Group	15.1 (4.1)	15.5 ^b (3.3)	13.6 ^b (2.9)
Cohen's d		2.55	2.27
PCL-S Avoidance			
EMDR Group	20.2 (4.5)	10.3 ^a (3.5)	9.4 ^a (3.1)
Eclectic Group	19.4 (4.6)	16.6 ^b (4.1)	16.06 ^b (4.2)
Cohen's d		1.6	1.8
PCL-S Neurovegetative			
EMDR Group	16.1 (4.2)	8.4 ^a (2.3)	8.1 ^a (1.9)
Eclectic Group	16.9 (4.5)	17.0 ^b (4.1)	16.06 ^b (4.2)
Cohen's d		2.58	2.4
Global SUDs			
EMDR Group	7.8 (1.1)	1.7 ^a (1.1)	2.5 ^a (0.84)
Eclectic Group	8.3 (1.2)	7.7 ^b (0.9)	7.73 ^b (0.91)
Cohen's d		5.97	5.9

PCLS-Tot

 EMDR group

 Eclectic group

PCLS-Tot

■ EMDR group

■ Eclectic group

Pre-Traitement

24h follow up

3 months follow up



PCLS-Tot

■ EMDR group

■ Eclectic group



Pre-Traitement

24h follow up

3 months follow up

PCLS-Tot

■ EMDR group

■ Eclectic group



PCLS-Tot

■ EMDR group

■ Eclectic group



SUD

 EMDR group

 Eclectic group

SUD

■ EMDR group

■ Eclectic group

Pre-Traitement

24h follow up

3 months follow up



SUD

■ EMDR group

■ Eclectic group



Pre-Traitement

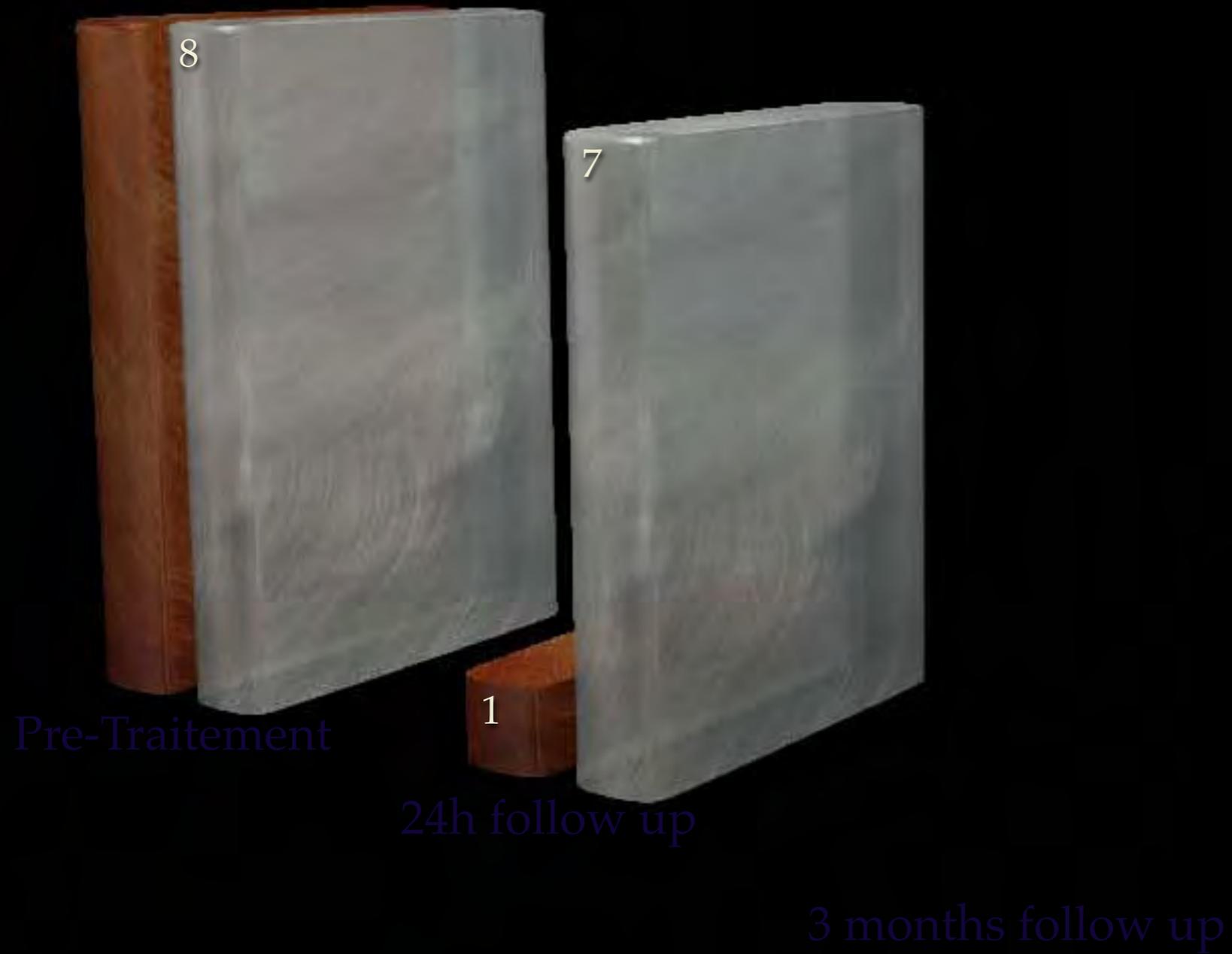
24h follow up

3 months follow up

SUD

■ EMDR group

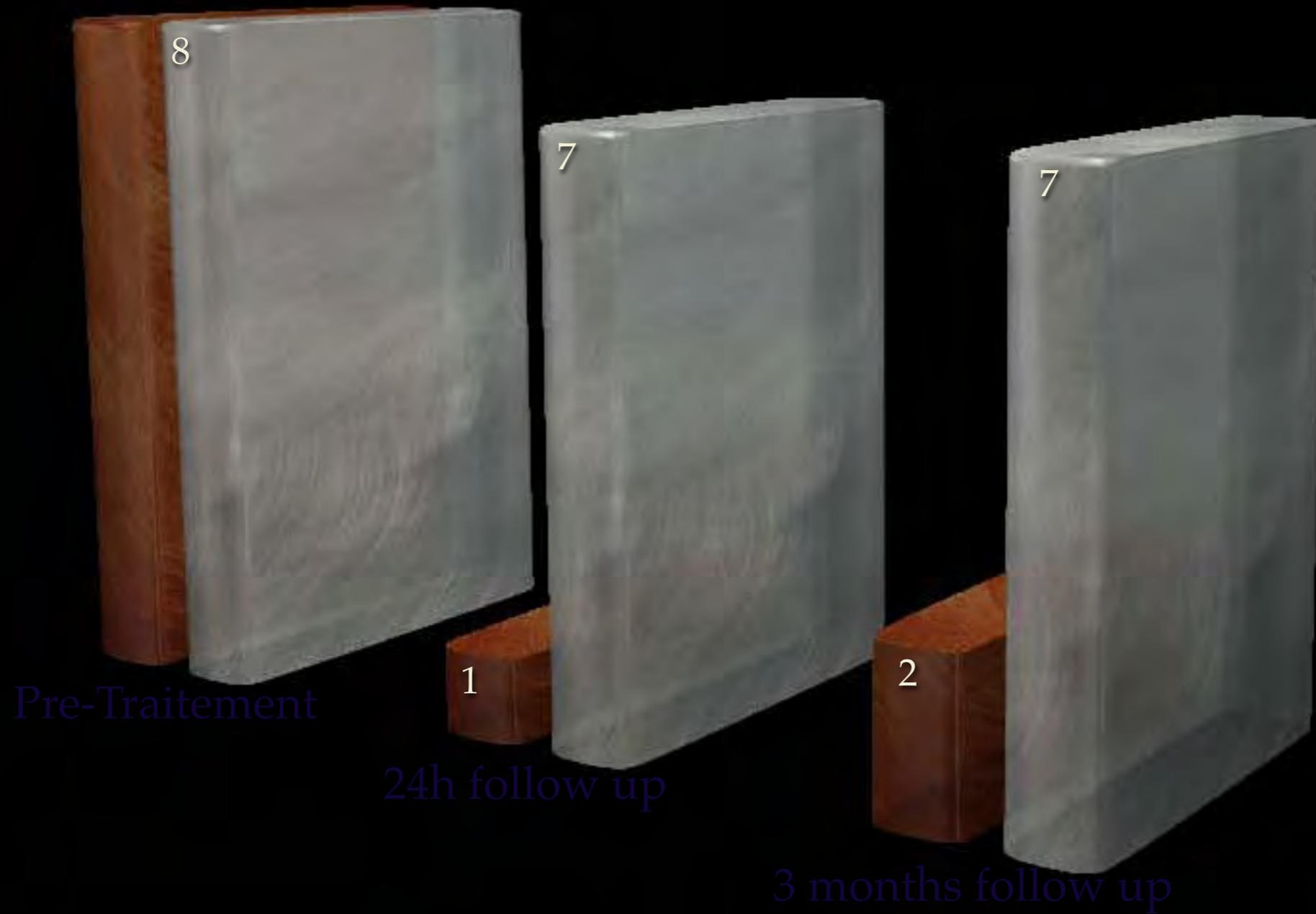
■ Eclectic group



SUD

■ EMDR group

■ Eclectic group



A faint, semi-transparent background image showing a person from the chest up, holding their head with both hands, suggesting they are in pain. The image is centered and occupies the upper half of the slide.

La prise en charge de la douleur

EMDR in the Treatment of Chronic Pain



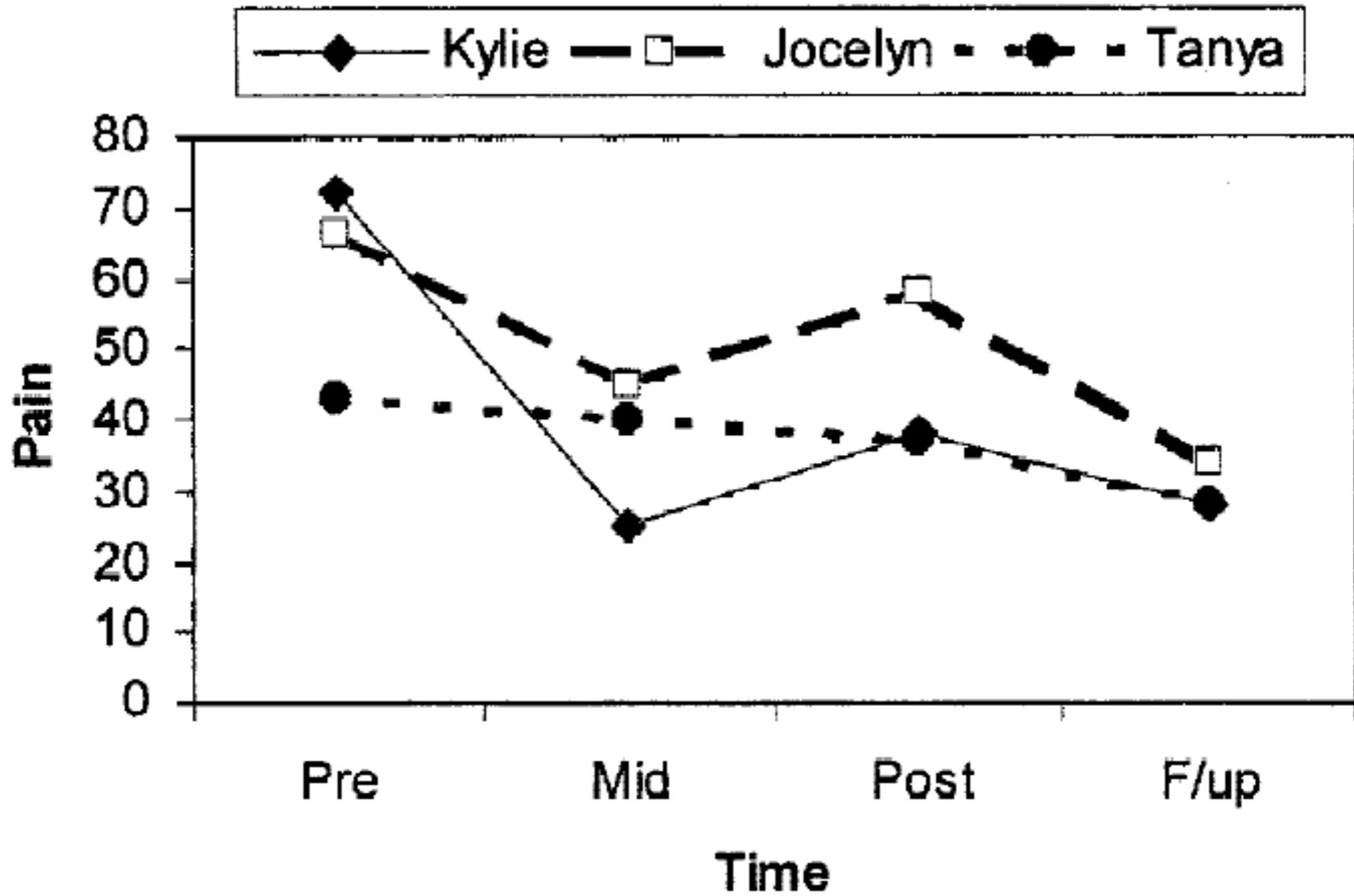
Mark Grant and Catherine Threlfo
Private Practice, Sydney, Australia

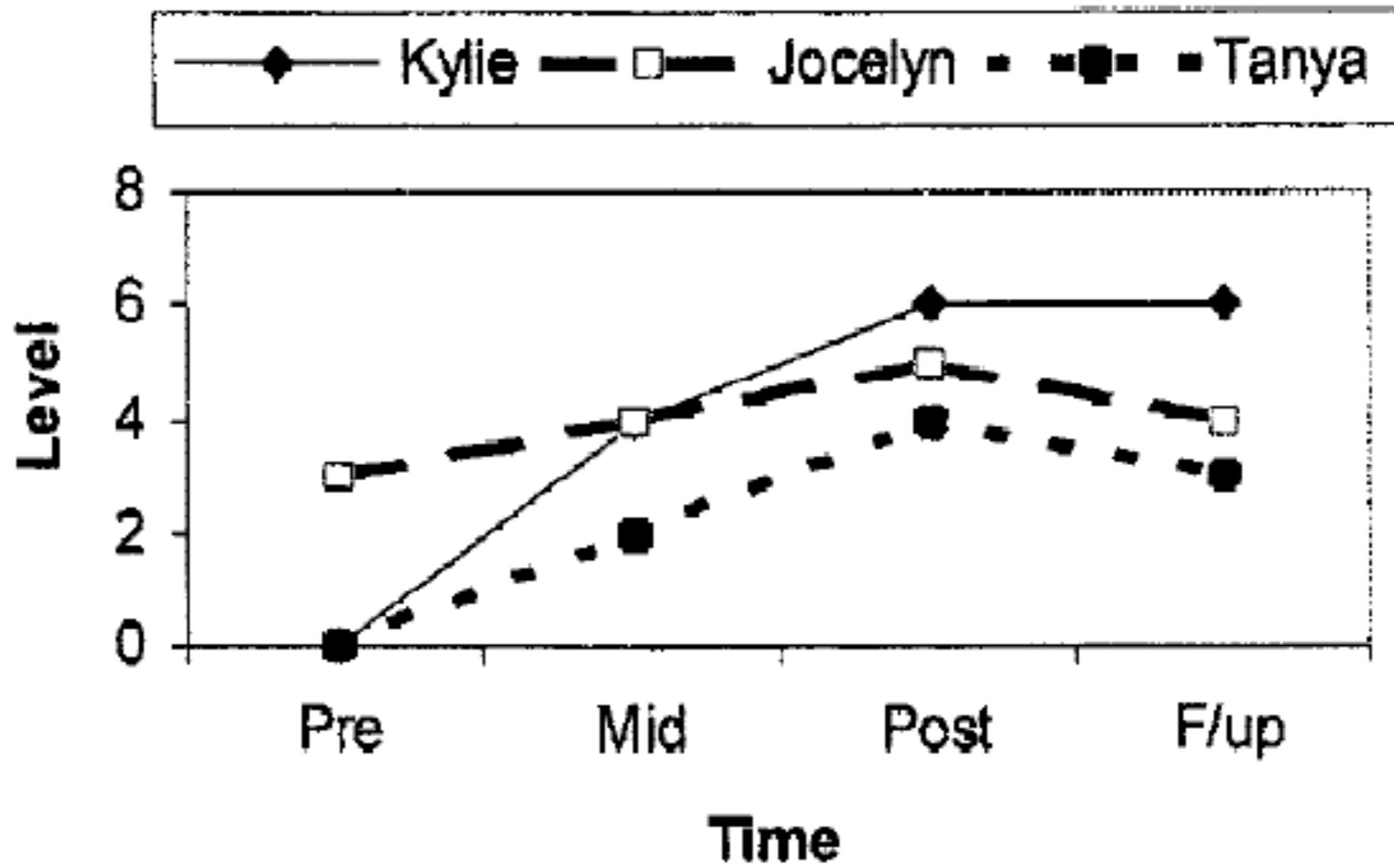
3 patients
9 sessions de 60 minutes

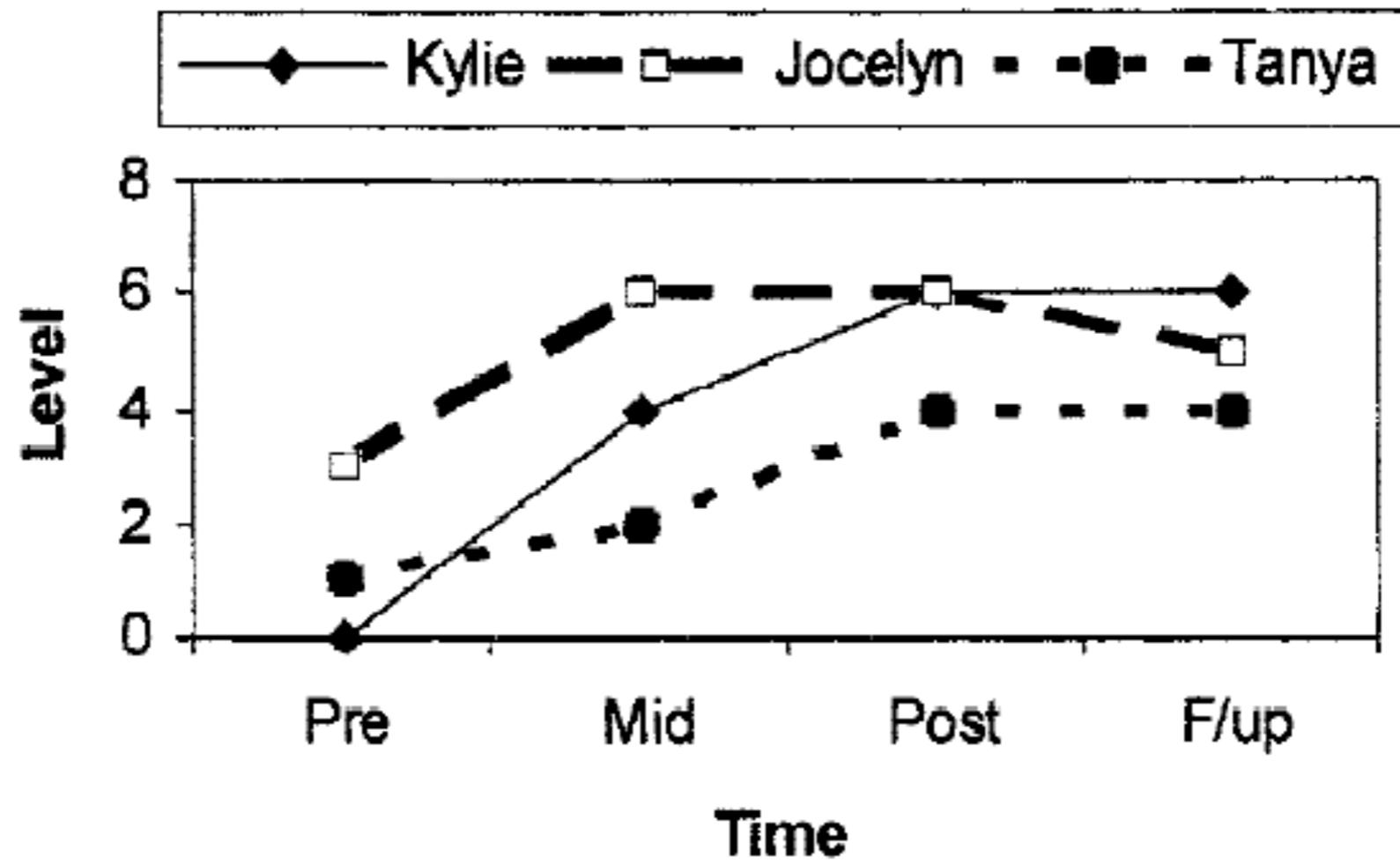
Short-Form McGill Melzack Pain Questionnaire (SFMPQ;
Melzack, 1987)

Coping Skills Questionnaire (CSQ; Rosenstiel & Keefe,
1983), capacité à contrôler la douleur, capacité à
diminuer la douleur

Pain Levels







EMDR in the Treatment of Chronic Pain

Alexandra Mazzola

Maria Lujàn Calcagno

Maria Teresa Goicochea

Honorio Pueyrredòn

Jorge Leston

Fernando Salvat

Institute for Neurological Research

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Jorge Leston

Fernando Salvat

Institute for Neurological Research

Dr. Raul Carrea (FLENI) Pain Center

Buenos Aires, Argentina

12 sessions de 90 minutes

TABLE 2. SF-36 Pre- and Posttreatment Scores, Median, and Range Values

Domain	Initial score Median (Range)	Final score Median (Range)	Significance
Physical Functioning	80 (0–100)	87.5 (30–100)	$p = .0027$
Role-Physical	0 (0–100)	75 (0–100)	$p < .0001$
Bodily Pain	26 (0–74)	52 (0–100)	$p < .0001$
General Health	57 (0–87)	64.5 (5–97)	$p = .0015$
Mental Health	46 (8–76)	60 (16–92)	$p = .0019$

Qualité de vie
SF36

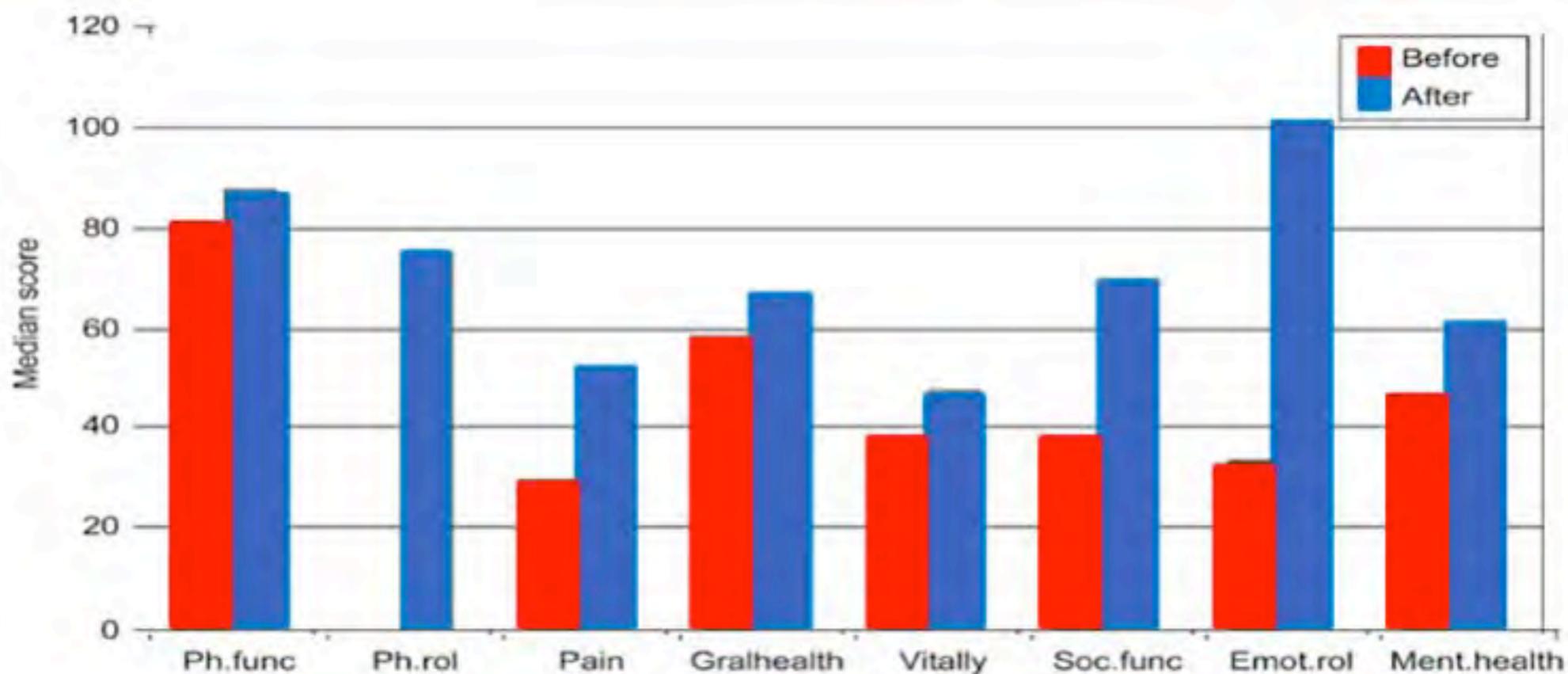
Anxiété
STAI-T

Dépression
BDI

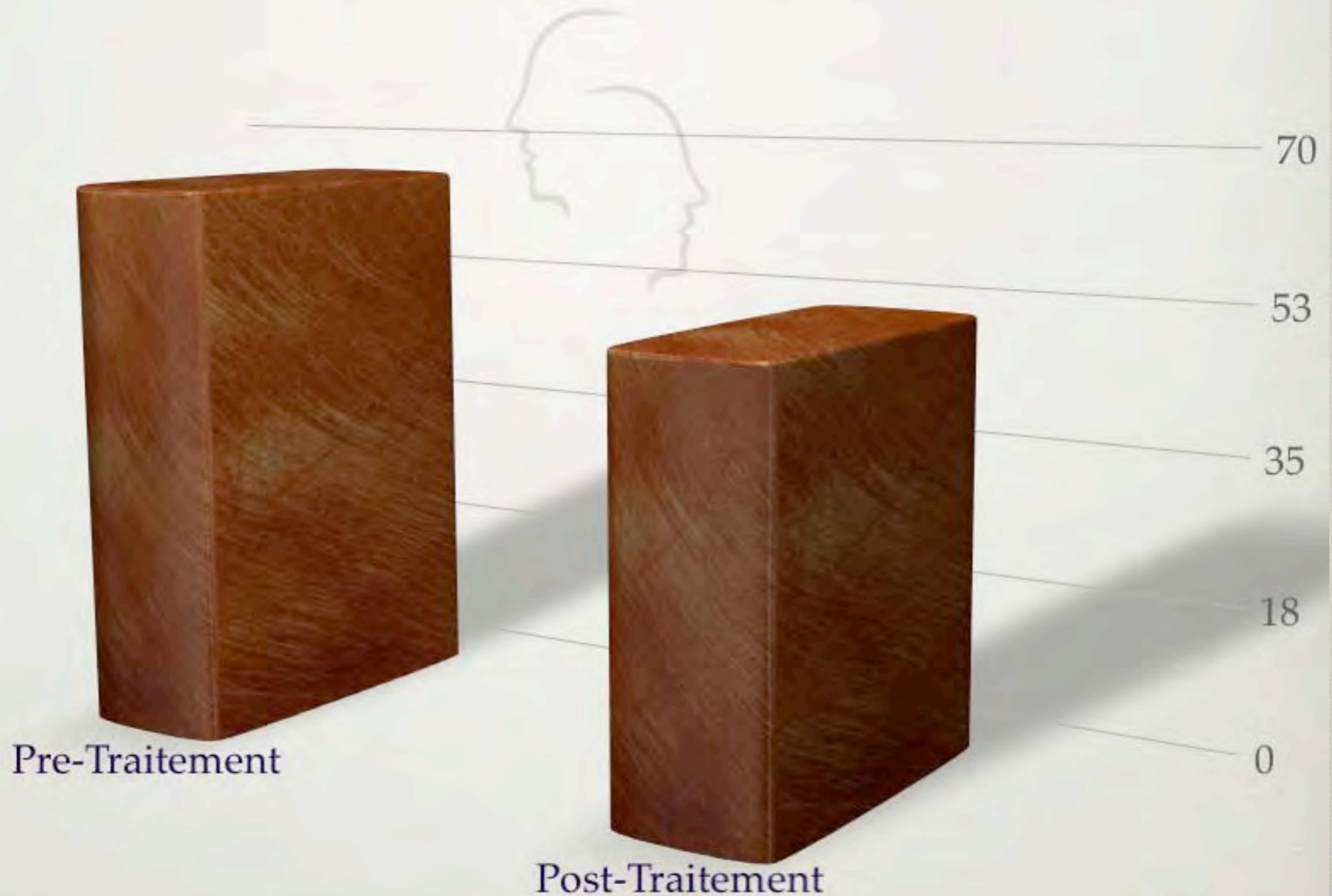
38 patients souffrants de
douleurs chroniques

TABLE 2. SF-36 Pre- and Posttreatment Scores, Median, and Range Values

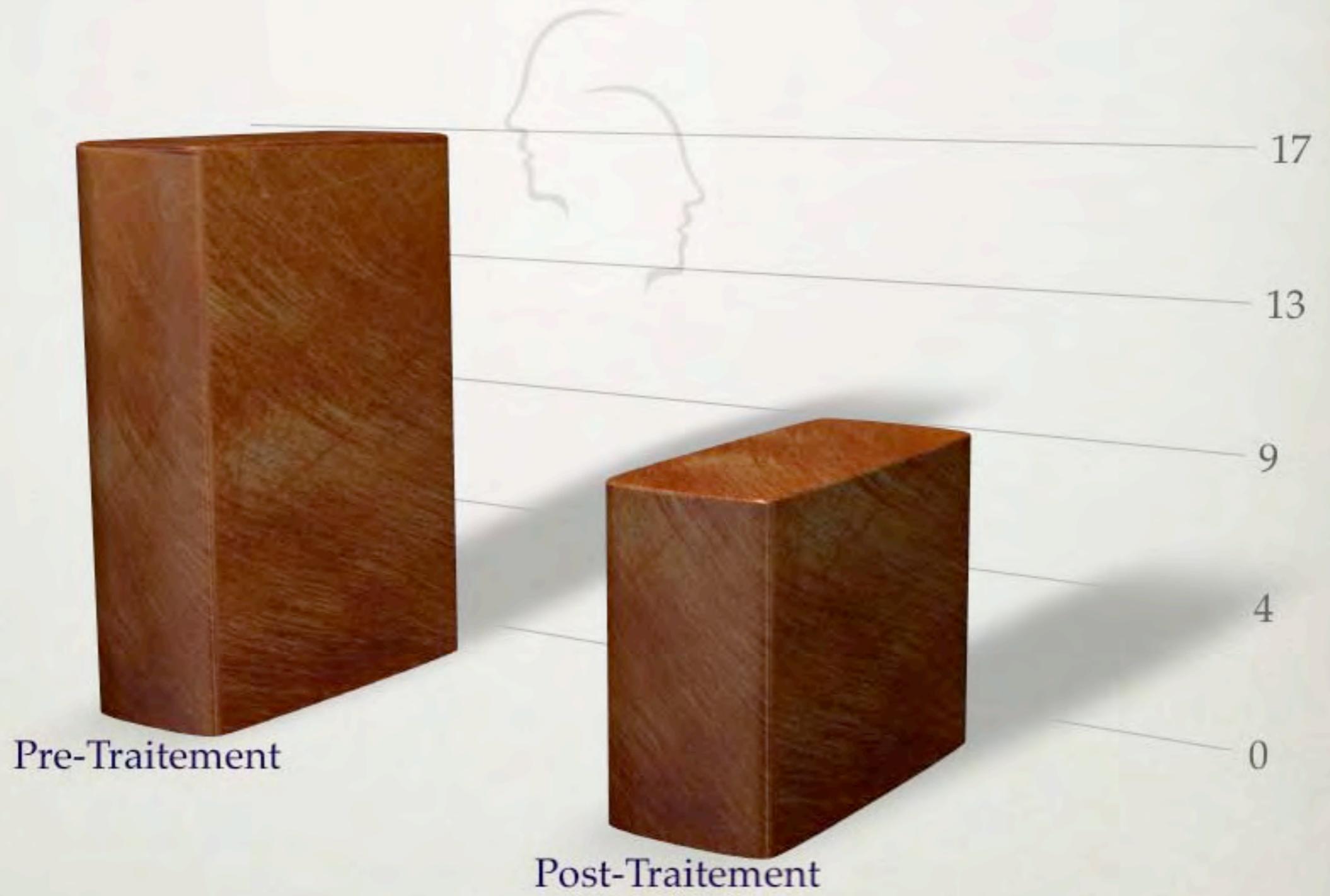
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General Health	57 (0–87)	64.5 (5–97)	$p = .0015$
Vitality	37.5 (0–60)	47.5 (10–80)	$p = .0003$
Social Functioning	37.5 (0–100)	68.7 (0–100)	$p < .0001$
Role-Emotional	33.3 (0–100)	100 (0–100)	$p < .0001$
Mental Health	46 (8–76)	60 (16–92)	$p = .0019$



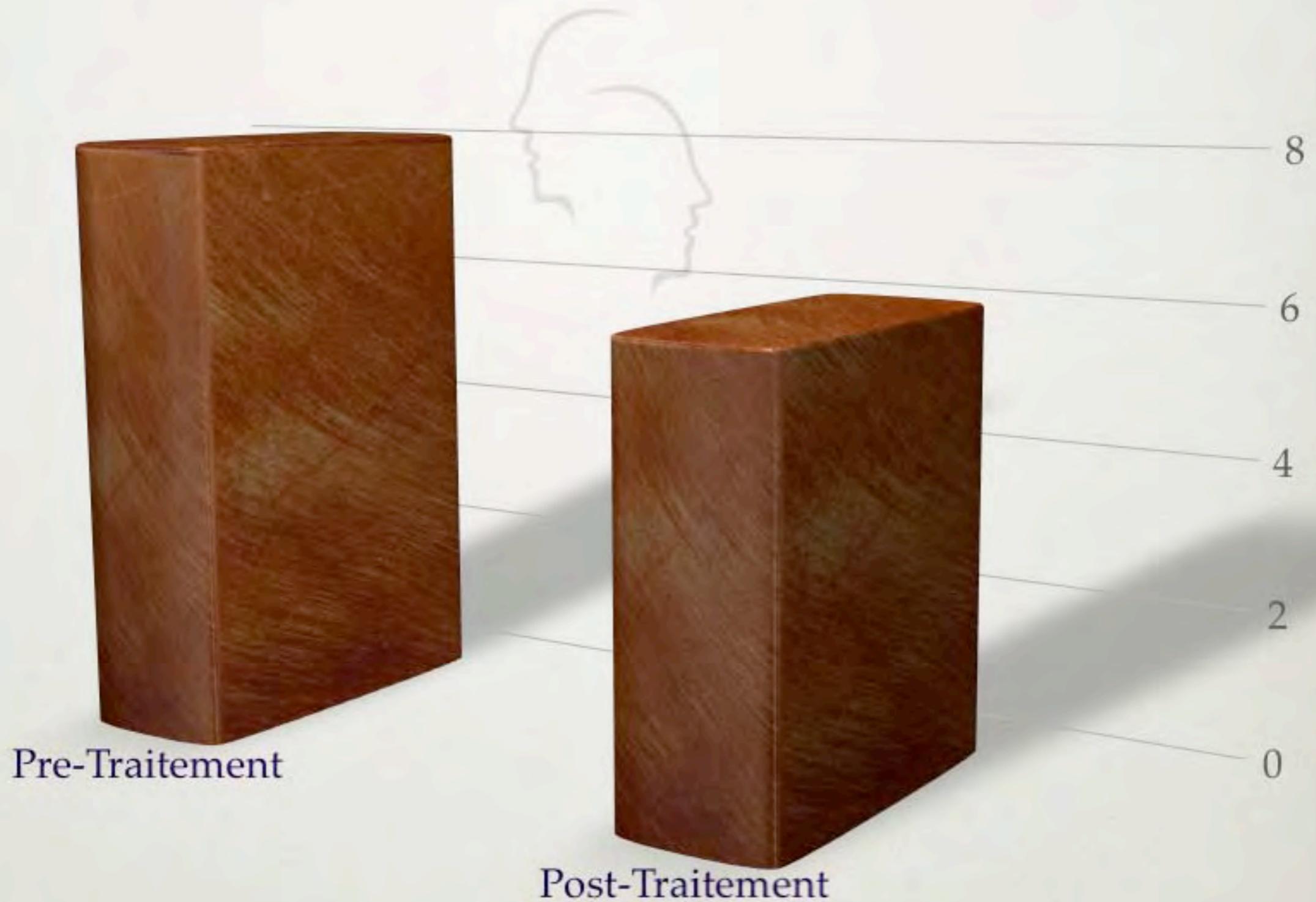
Stai Anxiété Trait



BDI



Douleur VAS

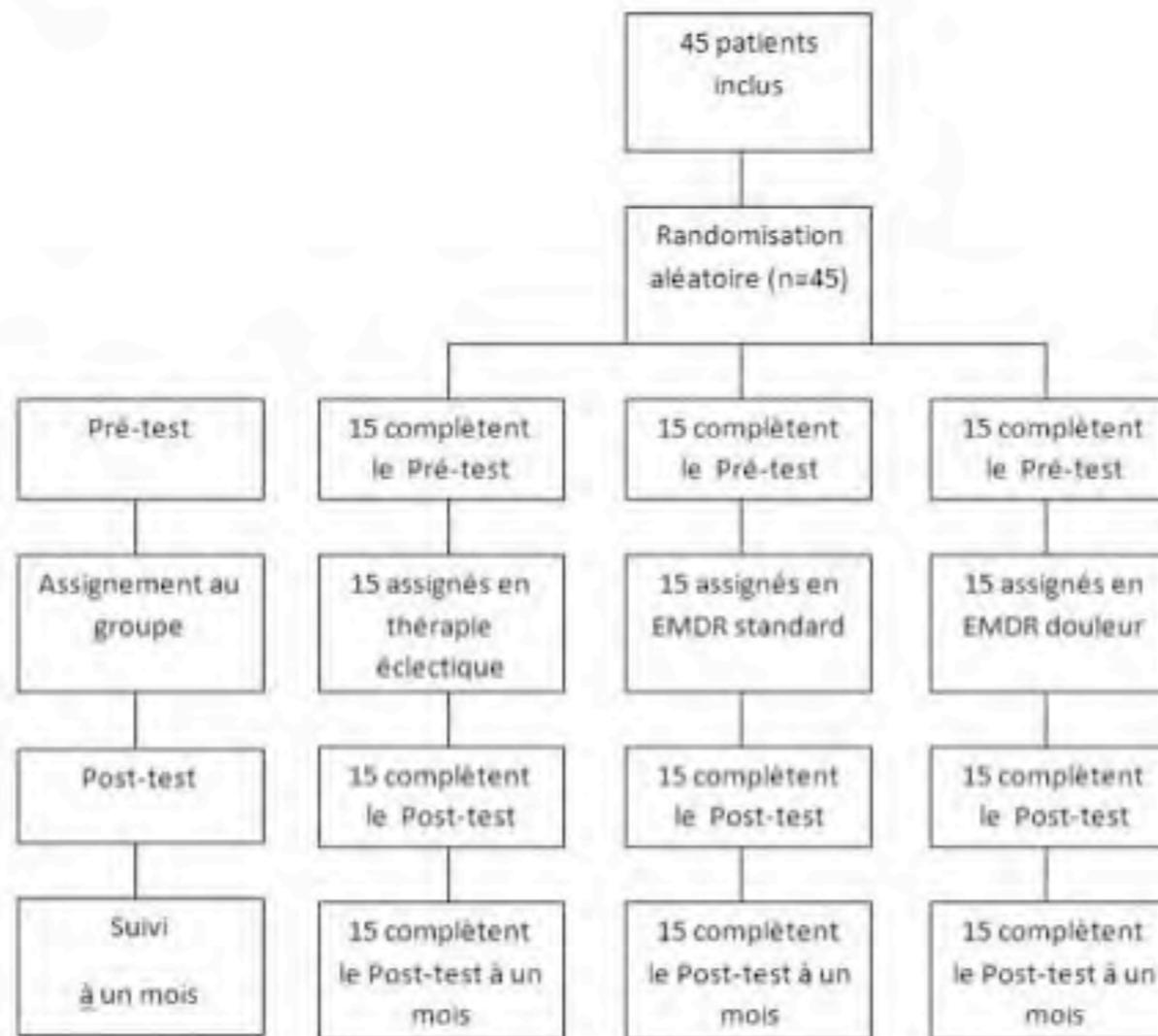


Thèse du laboratoire Marie Joe Brennsthul (2013)

Nous avons ainsi défini 3 groupes de thérapie différents :

- Groupe 1 (groupe contrôle) : thérapie par entretiens cliniques classiques
- Groupe 2 (groupe EMDR standard) : thérapie EMDR protocole standard
- Groupe 3 (groupe EMDR douleur) : thérapie EMDR protocole douleur

Tableau 2 : Protocole de l'étude





5 sessions de 90 minutes

```
graph TD; A[5 sessions de 90 minutes] --> B[EMDR standard (n=15)]; A --> C[EMDR douleur (n=15)]; A --> D[Eclec (n=15)]; E[Patients douloureux chroniques] --> B; E --> C; E --> D;
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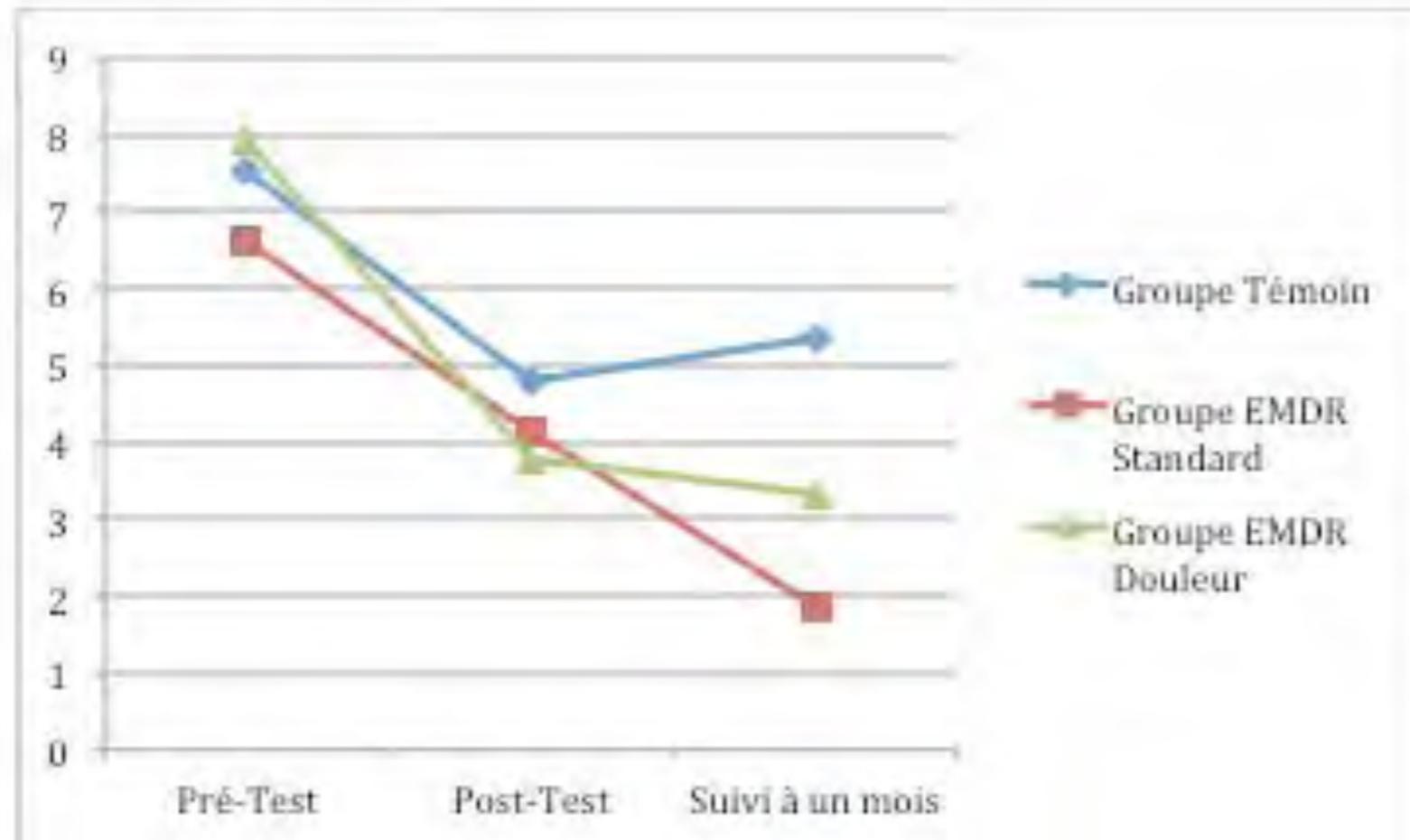
**EMDR
standard
(n=15)**

**EMDR
douleur
(n=15)**

**Eclec
(n=15)**

**Patients douloureux
chroniques**

Figure 1 : EVA Global



EMDR Treatment of Migraine

Emre Konuk

Hejan Epözdemir

Şirin Hacıömeroğlu Atçeken

Yunus Emre Aydın

Asena Yurtsever

Institute for Behavioral Studies, Istanbul, Turkey



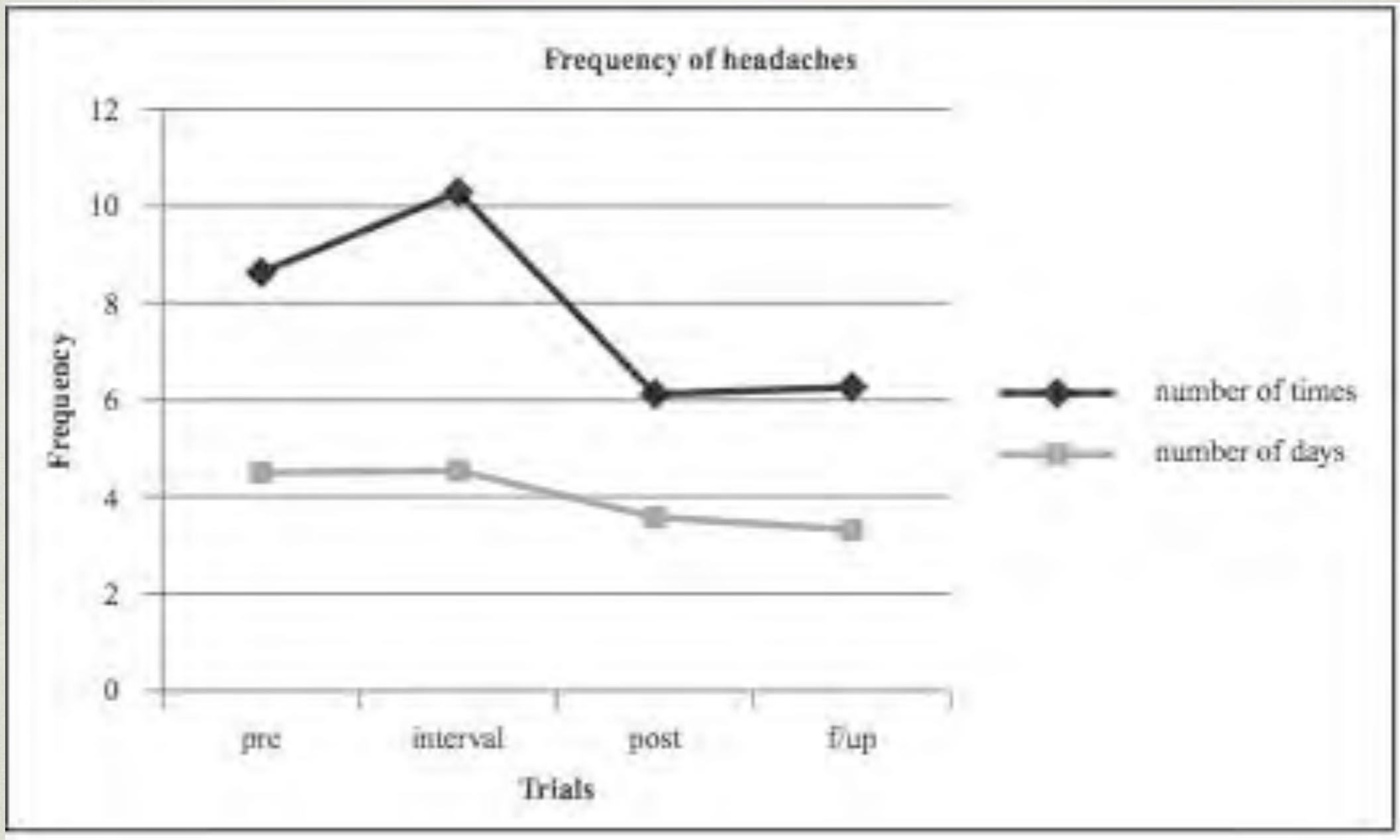
8 sessions

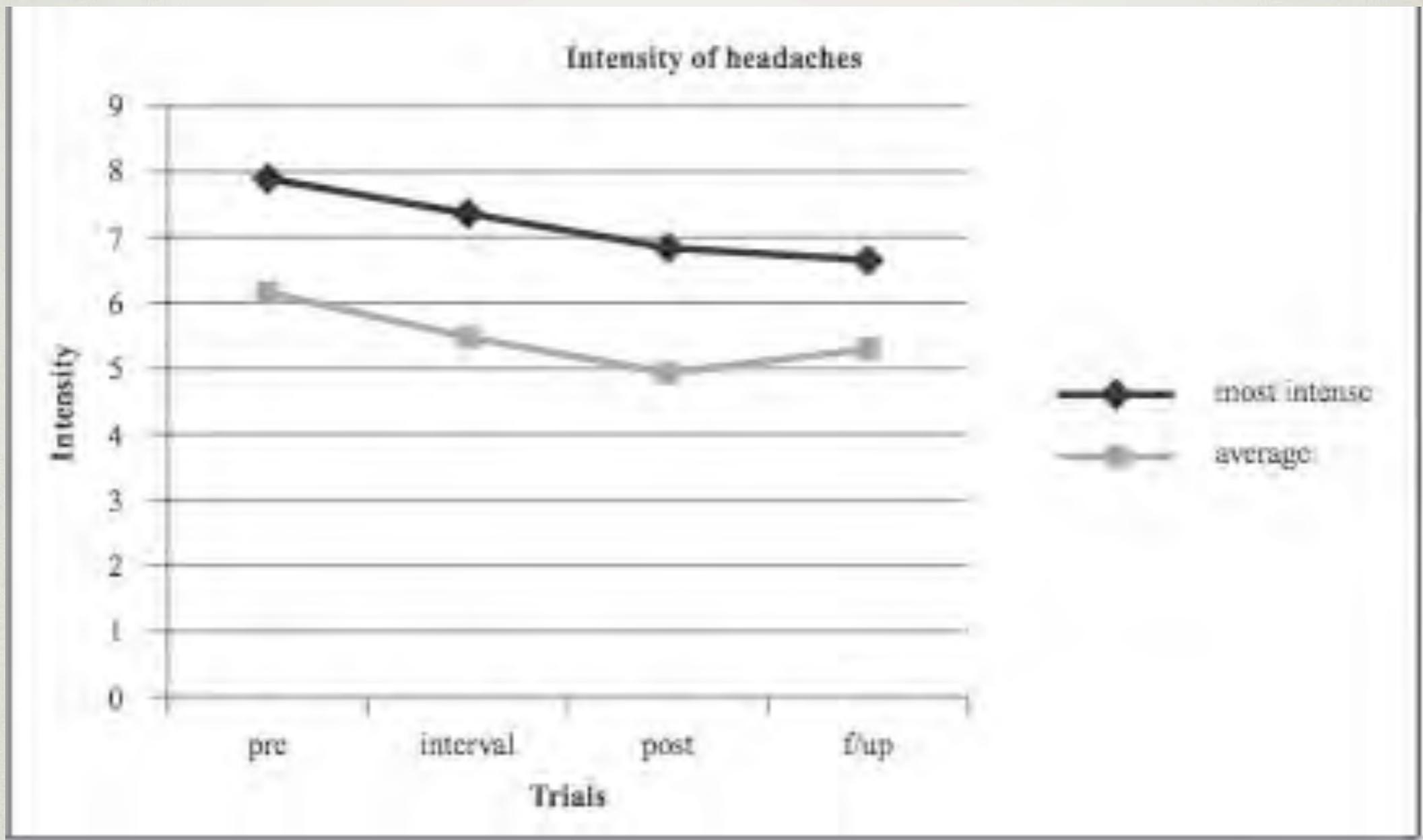
Prétest

Post-test

**Après 3
mois**

11 sujets





Le cancer



Psychological consequences of breast cancer and EMDR therapy

Tarquino & al. (submitted).



Variables**EMDR group1****EMDR group2**

N

10

10

Age (SD)

Mean : 47.5 (6.2)

Mean : 50.8 (4.4)

Gender

Woman : 100% (10/10)
Man: 0% (0/10)Woman : 100% (10/10)
Man: 0% (0/10)

Nationality

French : 100% (10/10)

French : 100% (10/10)

Education level

(Under college) : 40% (4/10)
(College level) : 40% (4/10)
(Higher degree) : 20% (2/10)(Under college) : 40% (4/10)
(College level) : 60% (6/10)
(Higher degree) : 0% (0/10)

Marital status

Married : 70% (7/10)
In couple : 30% (3/10)Married : 80% (8/10)
In couple : 20% (2/10)

Average of children

Mean: 1.4 (0.6)

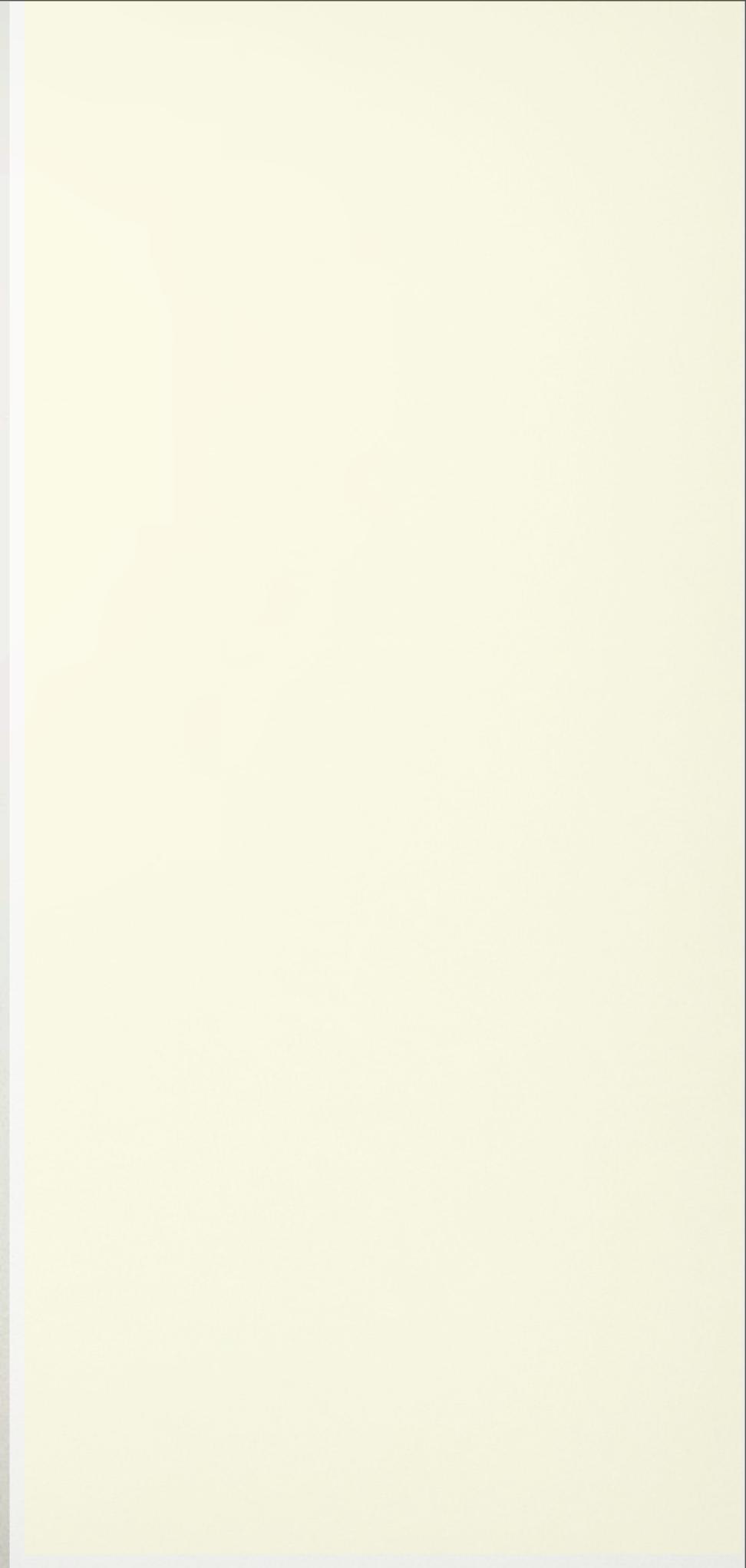
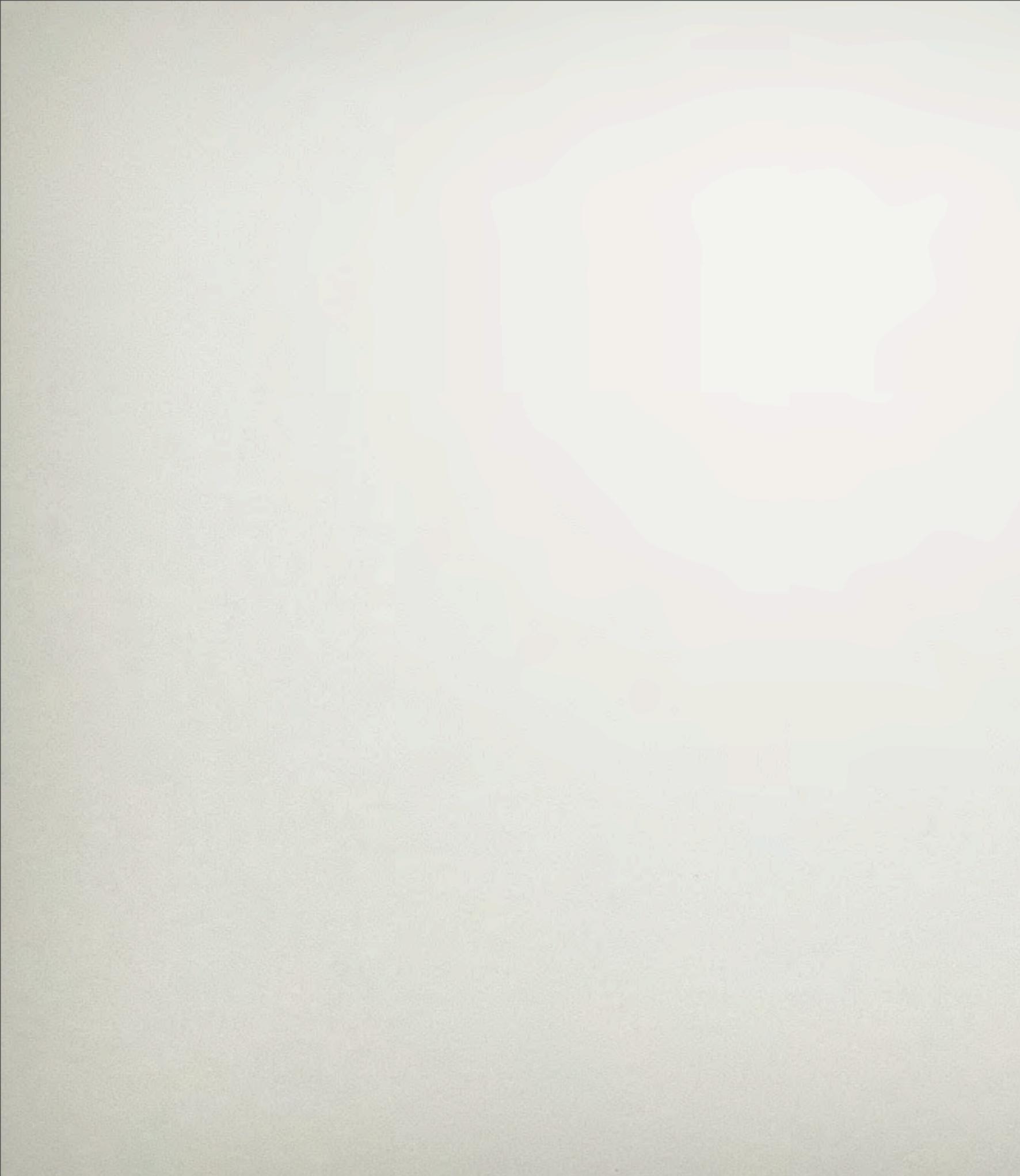
Mean: 1.5 (0.7)

Since when do you have
the cancer (in weeks)

Mean : 2.3 (0.6)

Mean : 2.8 (0.8)

Mastectomy at the end of
the studyYes: 30% (3/10)
No: 70% (7/10)Yes: 20% (2/10)
No: 80% (8/10)

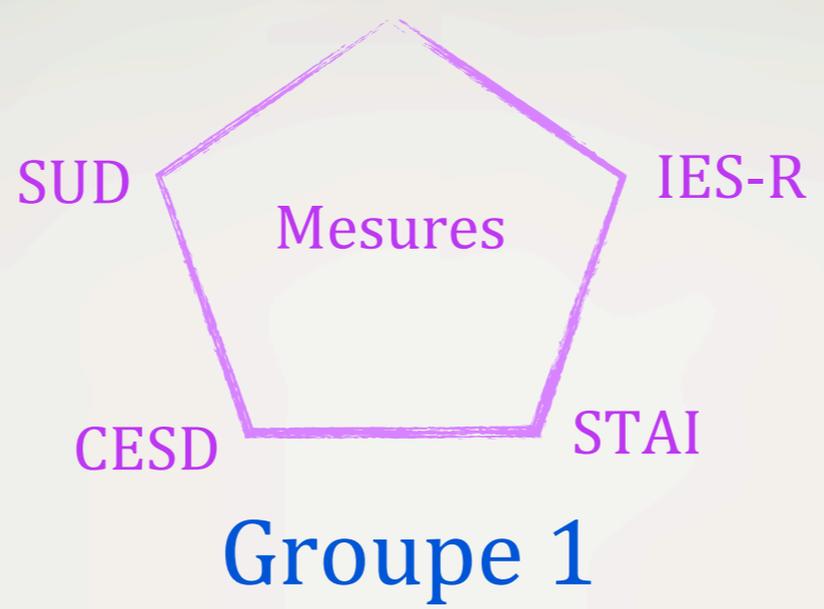


Pré-
Evaluation

Post-
Evaluation

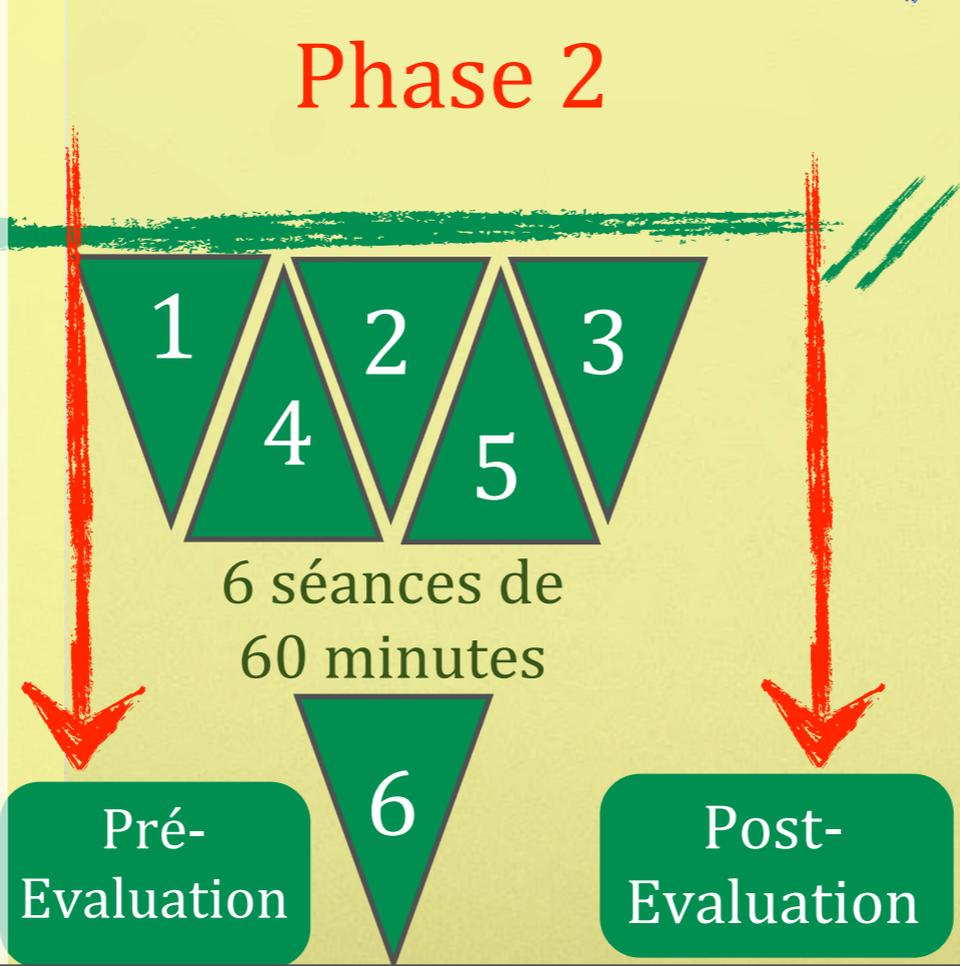
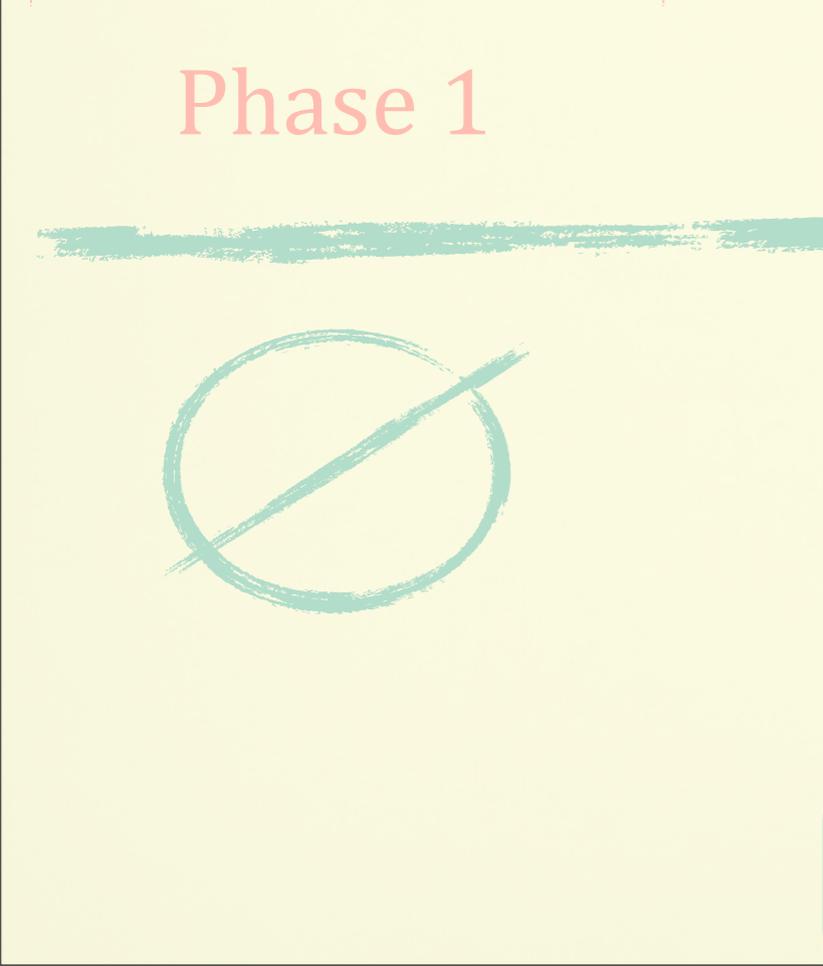
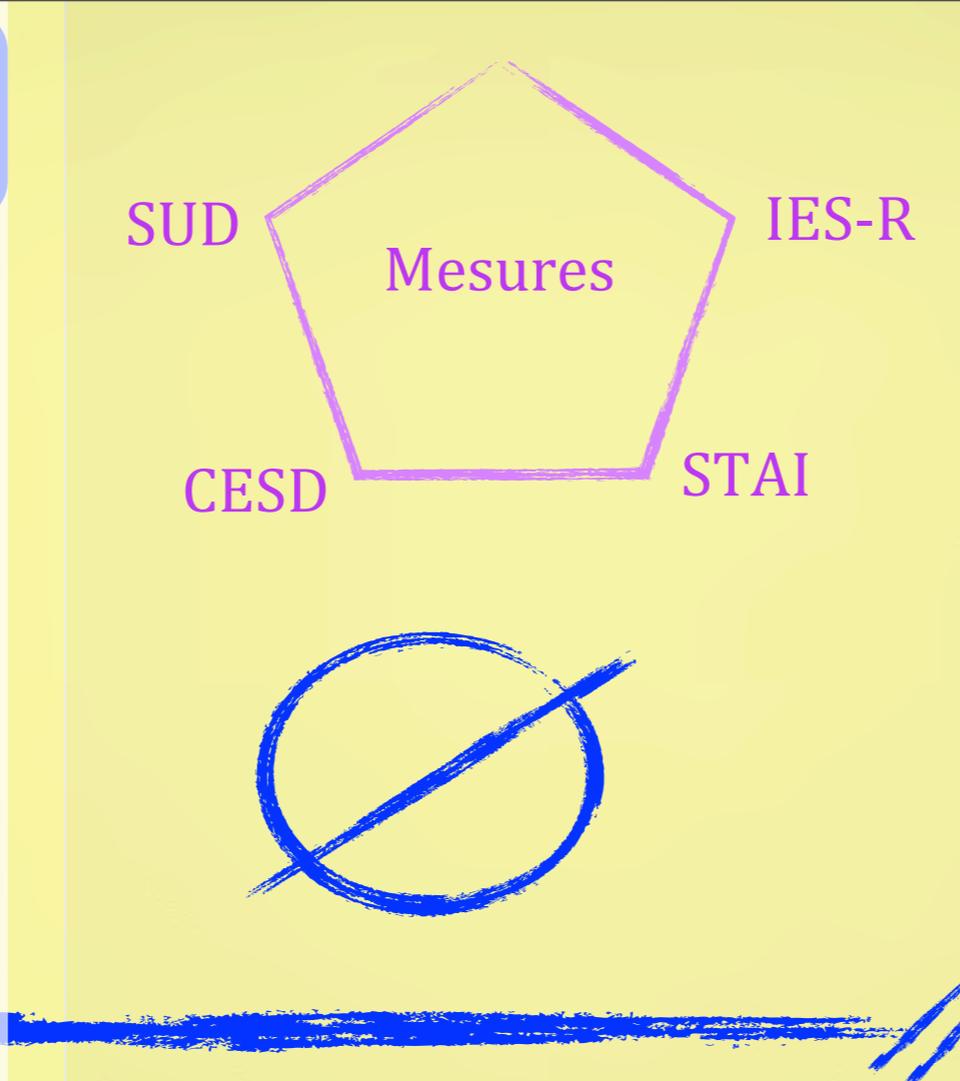
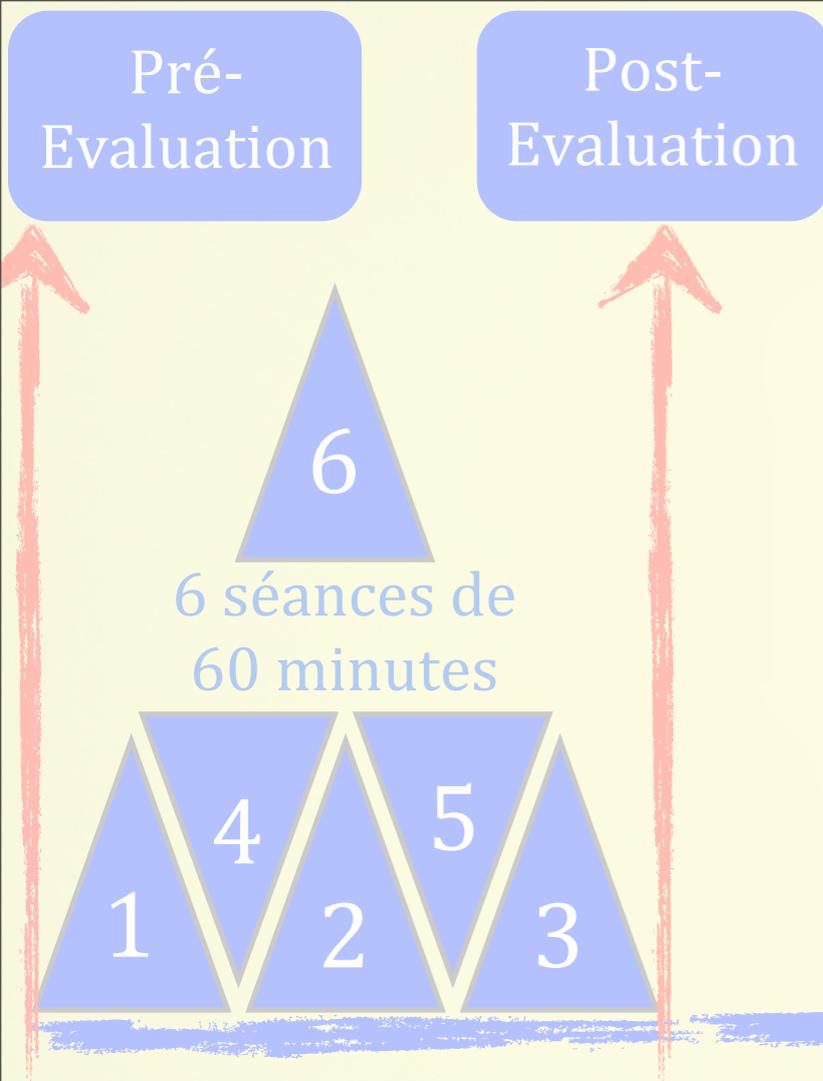


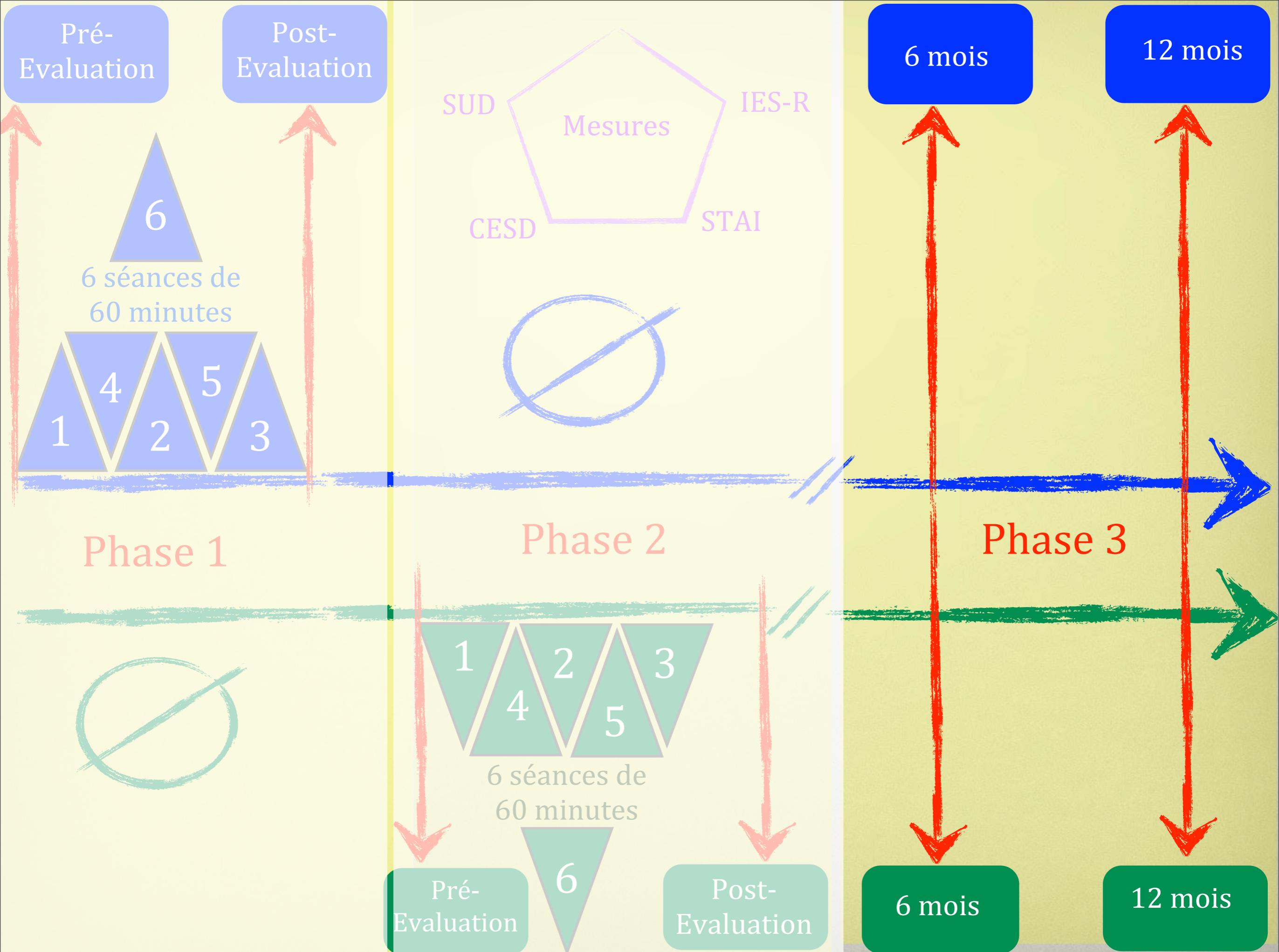
Phase 1

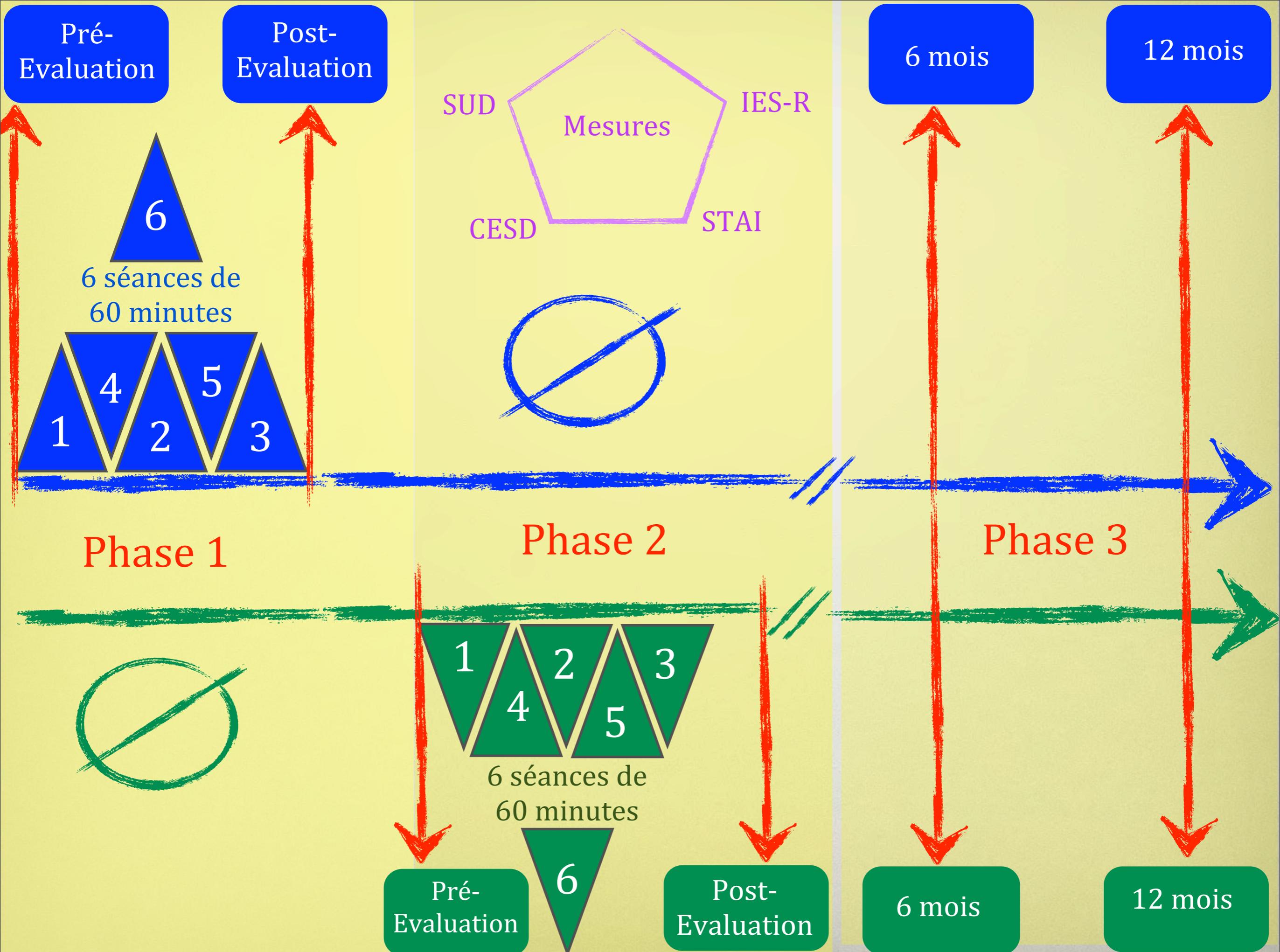


Groupe 1

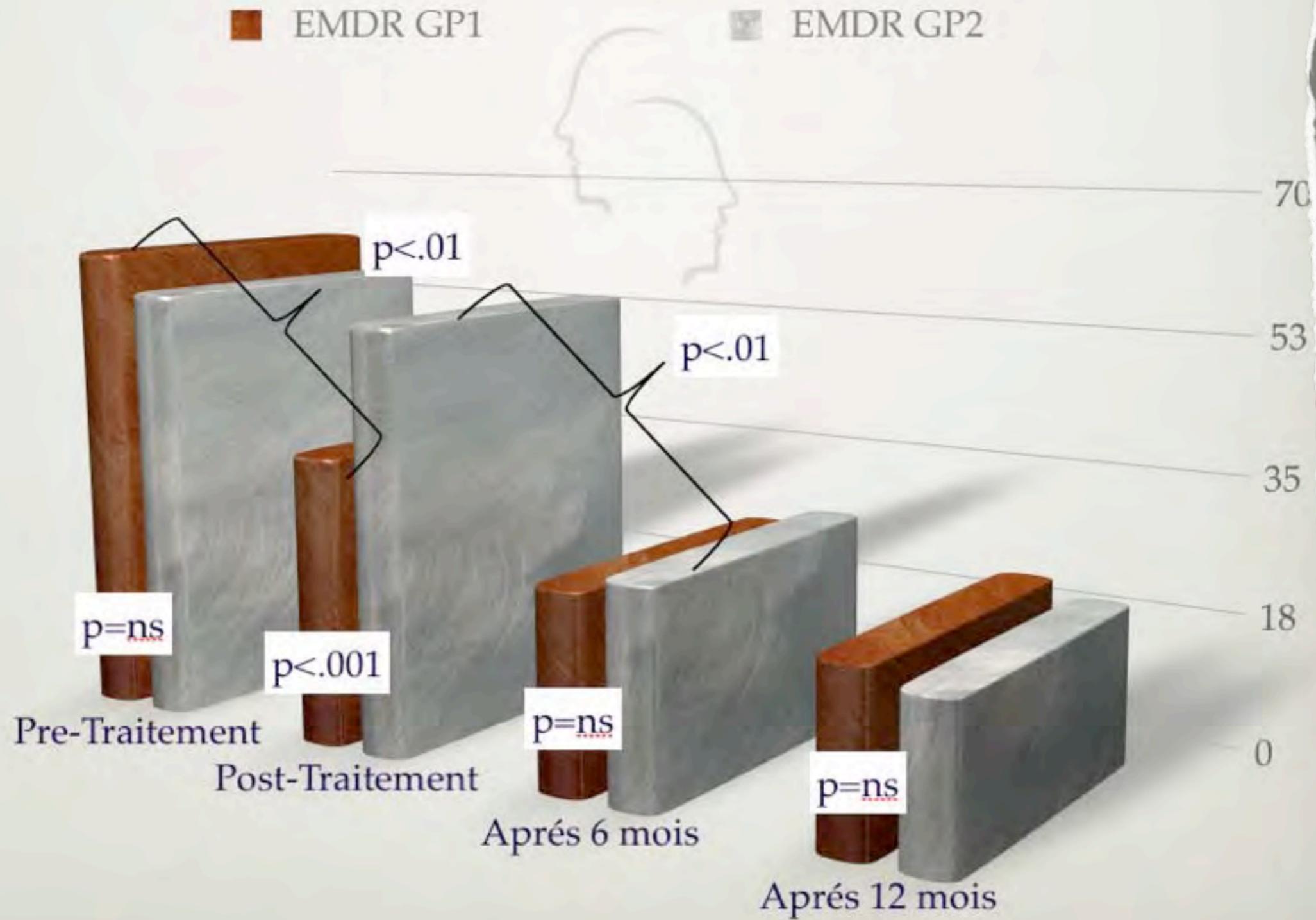
Groupe 2



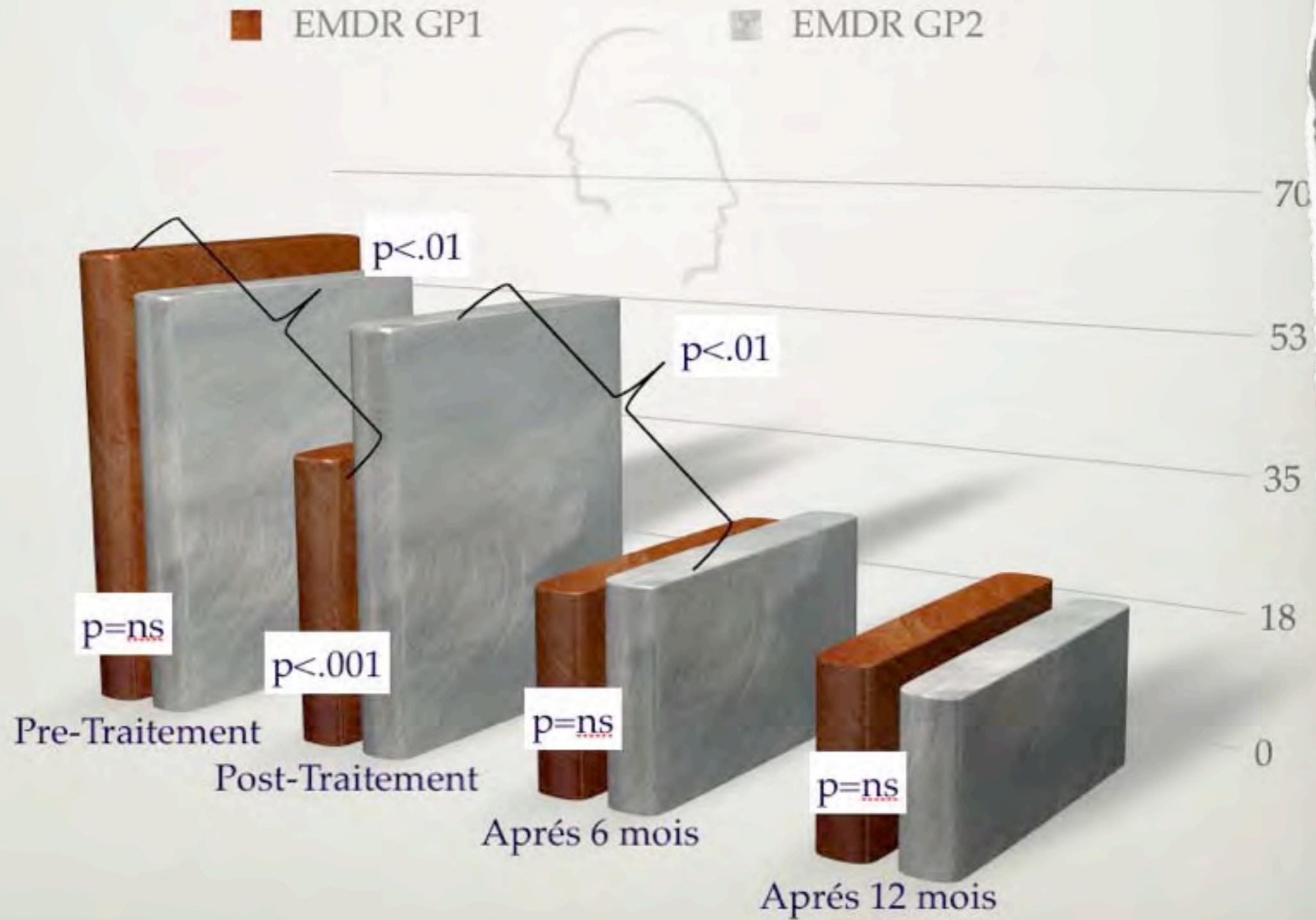




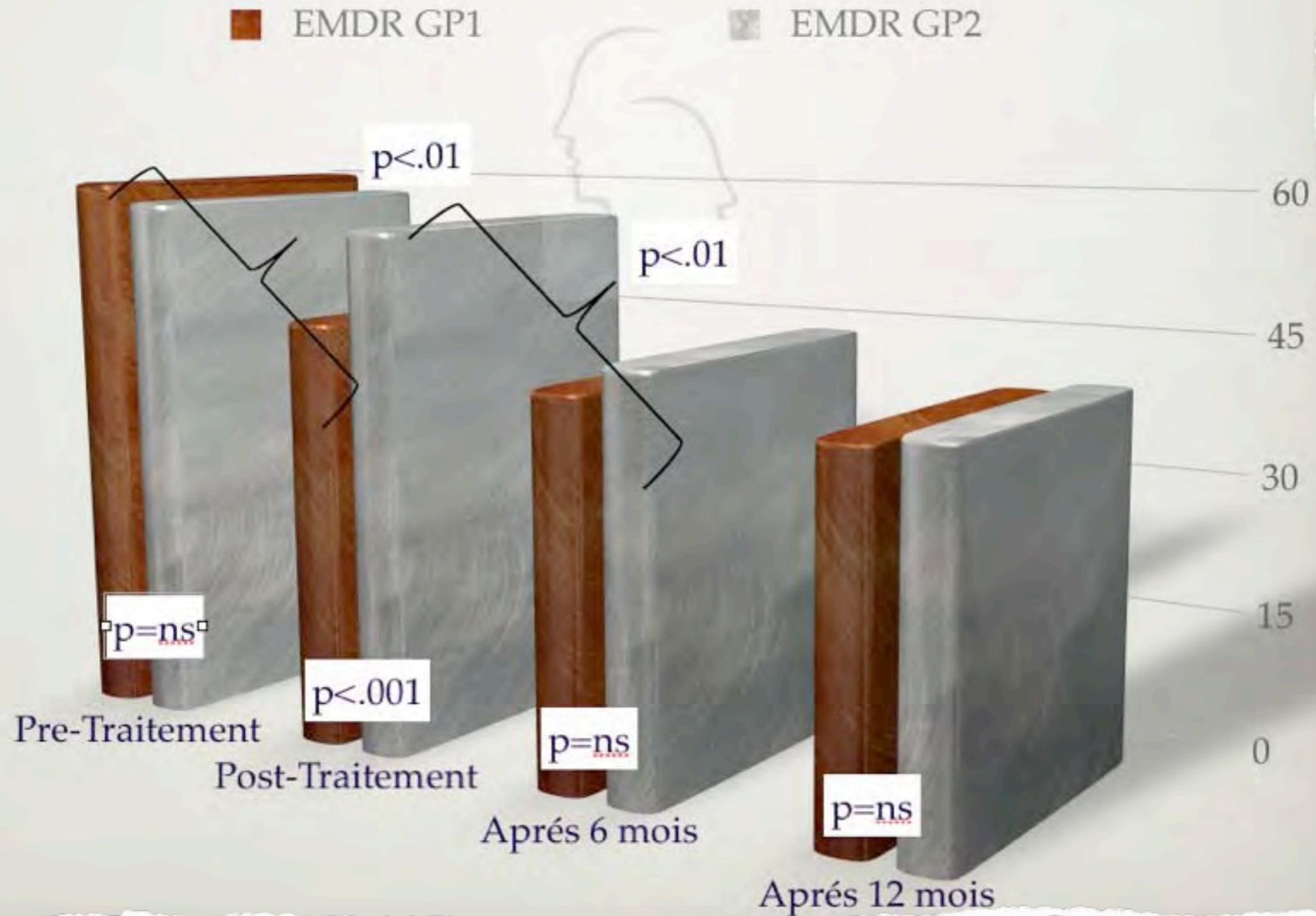
IES-Total



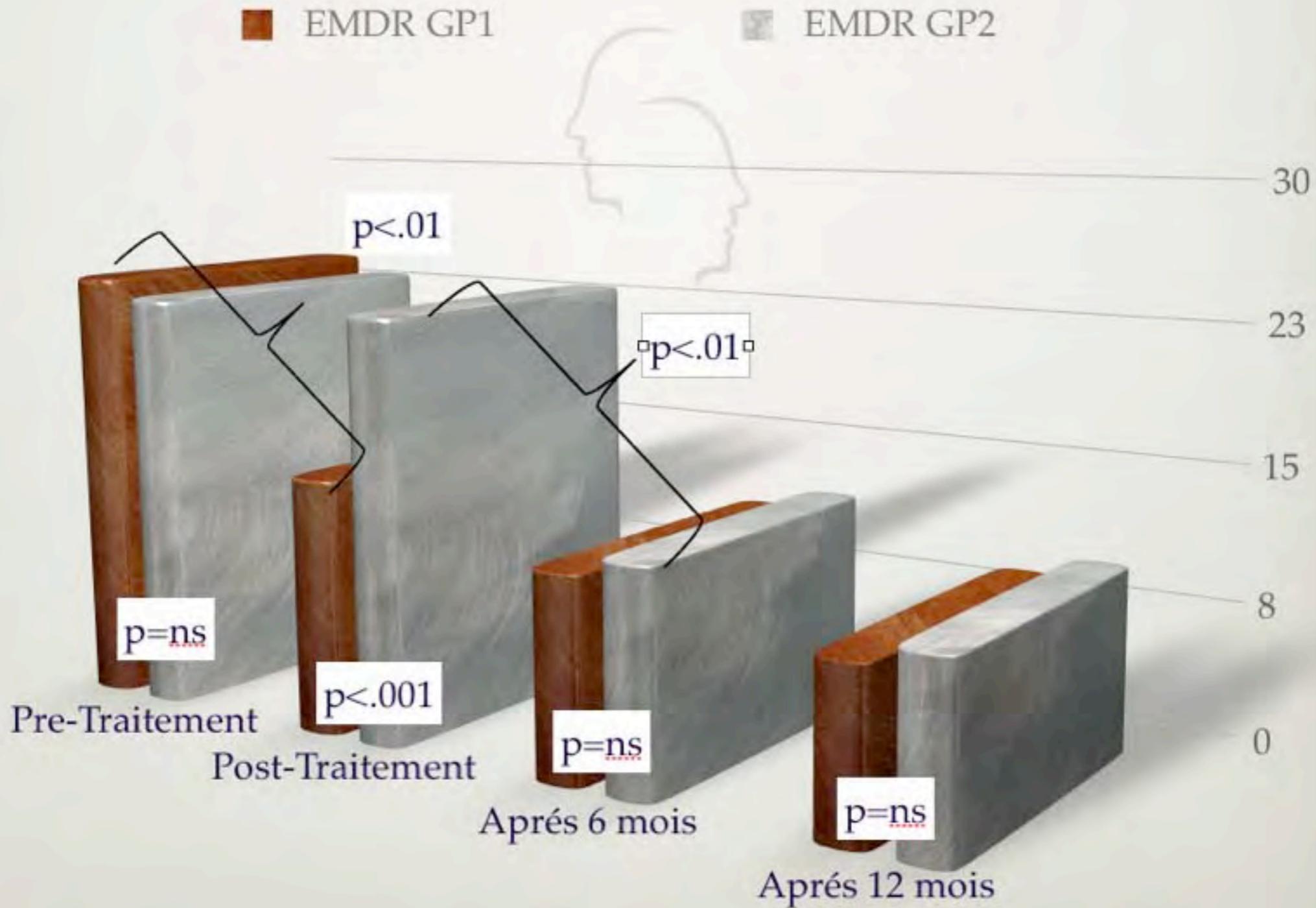
IES-Total



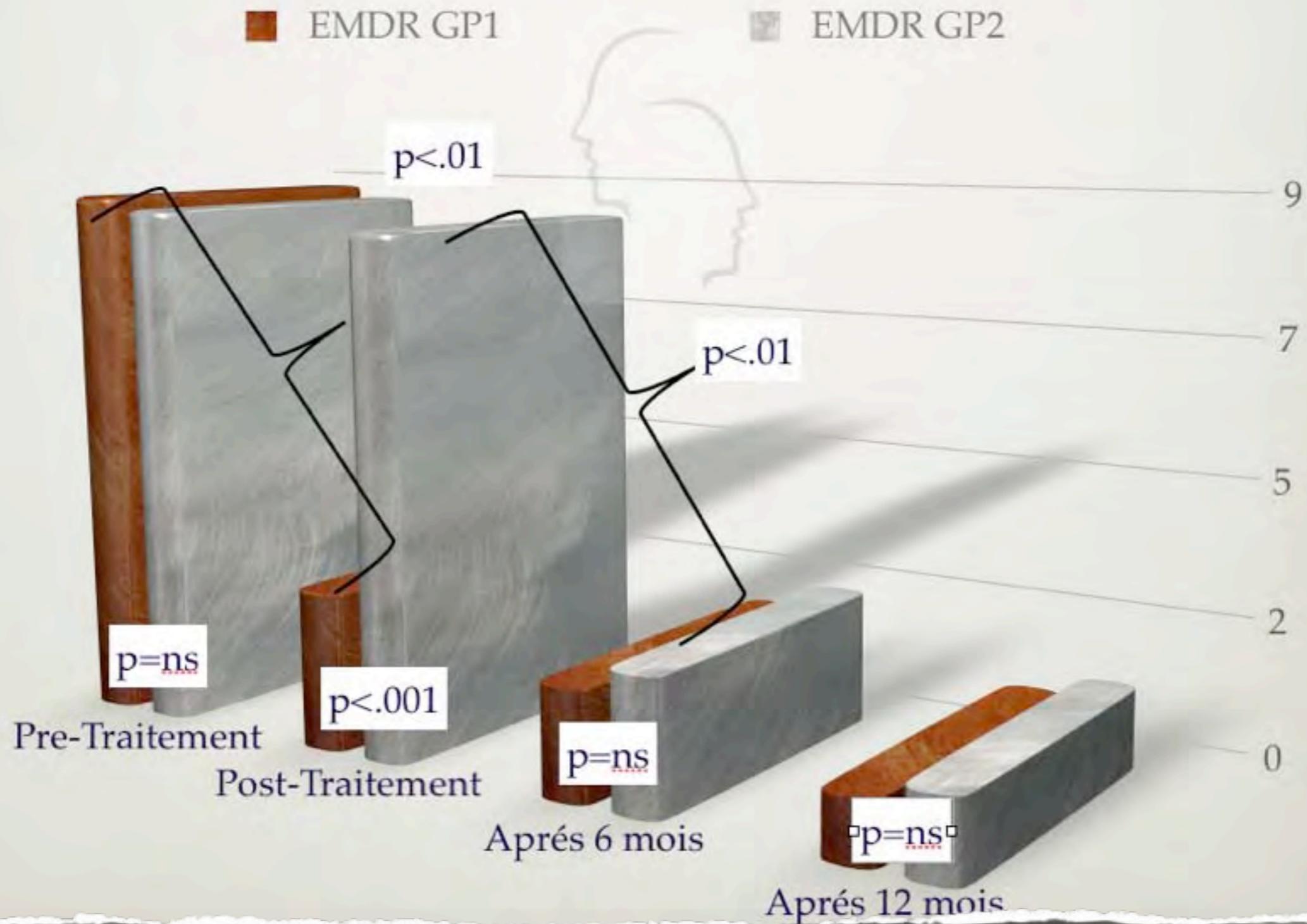
STAI-Etat



CESD



SUD



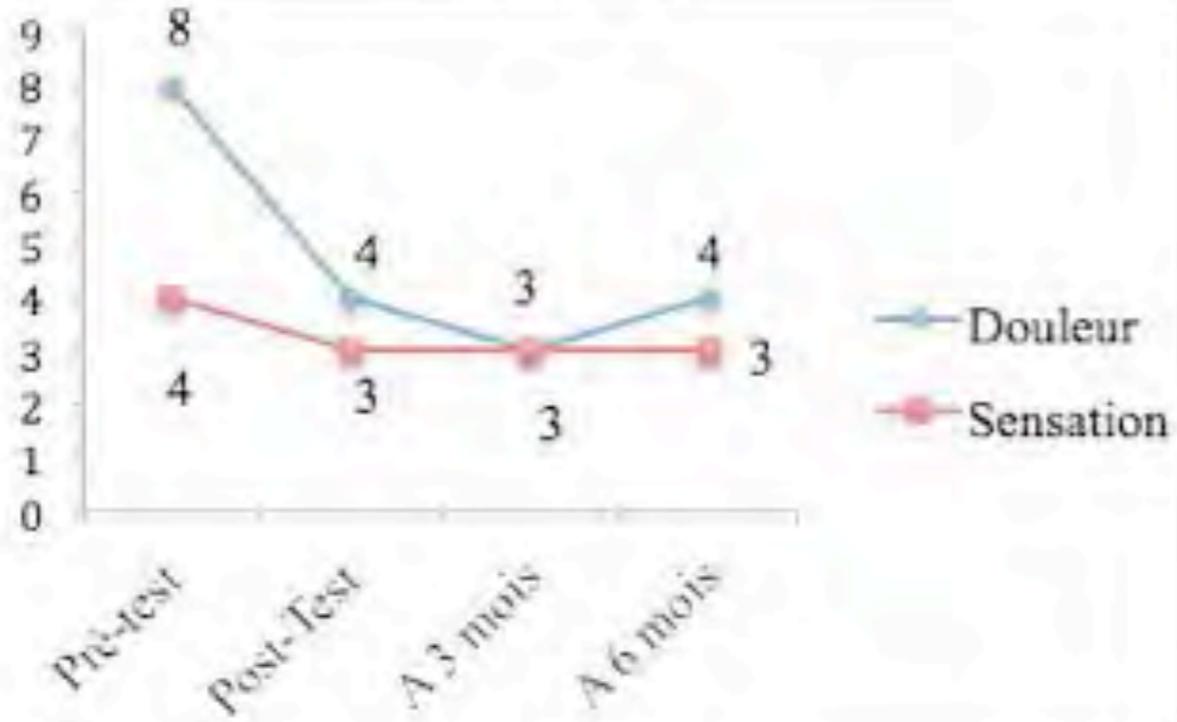


EMDR et prise en charge de la douleur du sein fantôme: étude de cas

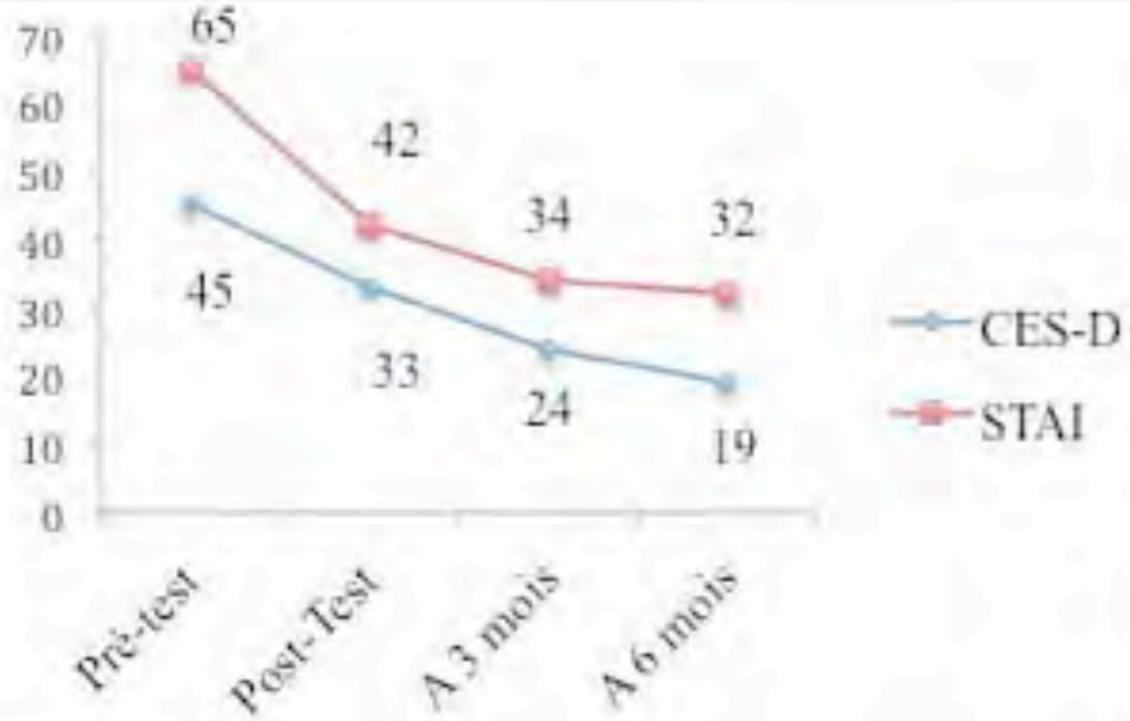
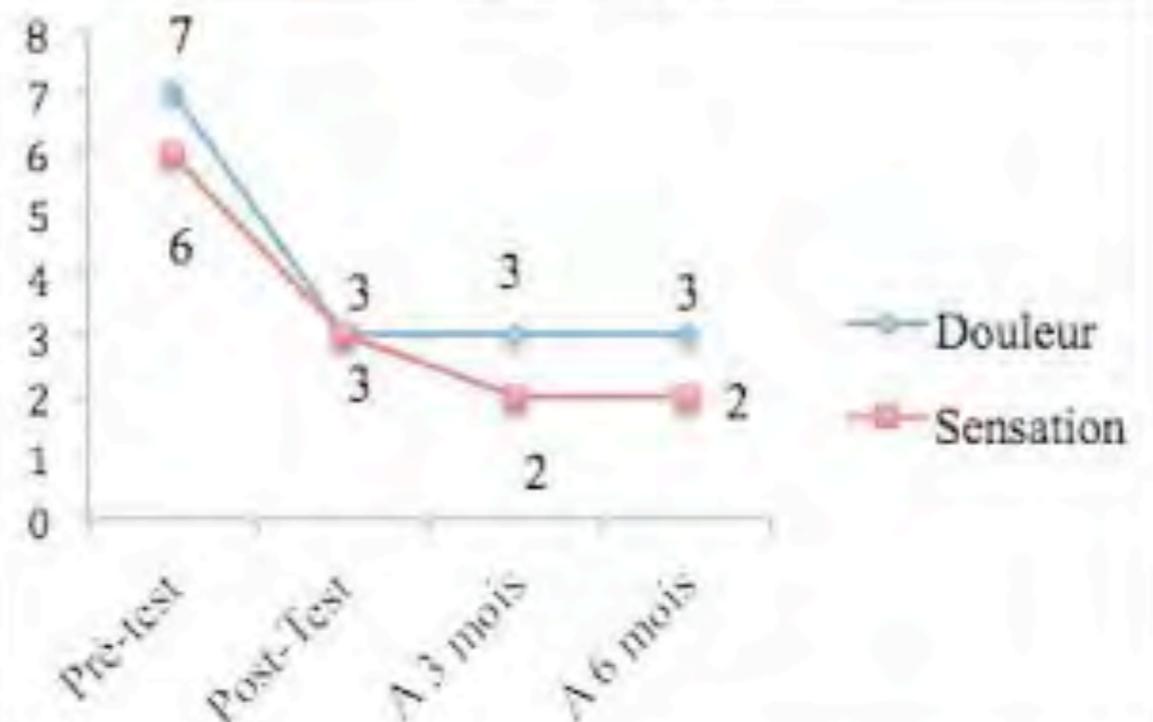
Brennstuhl, Tarquinio & al. (submitted).
l'Evolution Psychiatrique

2 femmes Paule (48 ans, marié deux enfants, secrétaire - 9 séances) et Nora (56 ans, mariée, un enfants, enseignante - 12 séances) ayant subi une mastectomie des deux seins suite à un cancer ont participé à cette étude. Les deux patientes étaient respectivement opérées depuis 16 et 18 mois.

Cas Paule



Cas Nora



	Cas Paul		Cas Nora
Début 1 ^{ère} séance EMDR			
Fin dernière séance EMDR			



Treating PBS with EMDR : a pilot study.

Brennsthul, Tarquinio & al. (submitted).
Journal of Traumatic Stress

Table 1. Demographic and clinical characteristics of the 13 patients

No	Age (Years)	Marital Status	Education Level	Time since the mastect.	Amputation side	Souvenir(s) marquant(s) ou traumatisant(s) liés à la maladie	Type of mastectomy pain	Type of mastectomy sensation	Fréquence hebdomadaire du Phantom breast syndrome (PBS)	Medication	Number of sessions
1	61	Married	<High School	12	Left	2	Pression/ Déchirement	Tension/ Engourdissement	moins de 1	Antidép	5
2	56	Married	<High School	18	Left/Right	3	Nothing	Picotement/ Pression	de 2 à 3	Paracétamol/ codéine	5
3	45	Single		14	Right	3	Arrachement/ Piqûre	Pression/ Picotement	de 3 à 4	Nothing	9
4	47	Single	<High School	20	Right	3	Torsion/ Crampe	Fourmillement/ Démangeaison	5 et plus	Antidép/ Paracétamol	10
5	40	In couple	>High School	15	Right	4	Crampe/ Battement	Lourdeur/ Engourdissement	moins de 1	Antidép/ Anxiolytique	9
6	37	Married	High School	14	Left	2	Contraction/ Etirement	Nothing	moins de 1	Antidép	5
7	54	Married	<High School	12	Left/Right	1	Coupe/ Brûlure	Démangeaisons/ Chaleur	de 3 à 4	Opiacé	6
8	37	In couple	High School	15	Left	3	Tiraillement/ Eclair	Nothing	de 3 à 4	Antidép	5
9	35	Single	High School	17	Left	4	Coup d'aiguille/ Arrachement	Pression/ Chatouillis	5 et plus	Paracétamol	9
10	34	Married	High School	15	Right	3	Contraction/ Etirement	Nothing	5 et plus	Paracétamol/ codéine	6
11	45	Married	High School	15	Left/Right	2	Coup d'aiguille/ Déchirement	Picotement/ Pression	moins de 1	Antidép	5
12	54	Single	High School	17	Left	3	Nothing	Démangeaisons/ Chaleur	de 3 à 4	Antidép	4
13	37	In couple	High School	15	Left	2	Contraction/ Ecrasement	Lourdeur/ Engourdissement	5 et plus	Paracétamol/ codéine	9

Variable Group	Pretest	Post-test	3 month follow-up	6 month follow-up
Pain intensity	6.23 ^a (1.3)	2.6 ^b (1.4)	2.3 ^b (1.1)	2.0 ^b (1.2)
Sensitivity intensity	6.5 ^c (1.1)	3.0 ^b (1.1)	2.3 ^b (1.2)	2.1 ^b (1.4)
PCL-S				
Total	43.5 ^a (14.19)	31.07 ^b (6.7)	28.8 ^b (6.7)	26.1 ^b (5.7)
Intrusion	13.0 ^a (5.4)	9.3 ^b (2.0)	8.8 ^b (1.8)	8.3 ^b (1.7)
Avoidance	17.6 ^a (5.6)	12.07 ^b (3.7)	11.2 ^b (3.4)	10.3 ^b (3.5)
Neurovegetative	12.9 ^a (4.8)	9.6 ^b (2.3)	8.7 ^b (2.3)	8.2 ^b (1.8)
STAI-State	55.9 ^b (7.36)	40.1 ^a (6.5)	36.07 ^c (4.3)	33 ^c (1.8)
CES-D	18.3 ^a (4.9)	13.6 ^b (3.5)	13.2 ^b (2.04)	11.8 ^b (1.9)

Note. Means in the same rows that do not share the same subscript differ at a Bonferroni corrected alpha level of $p < .05$. Total PCL-S = total score on posttraumatic checklist scale. PCL-S intrusion = posttraumatic checklist scale, intrusion subscale. PCL-S avoidance = posttraumatic checklist scale, avoidance subscale. PCL-S neurovegetative activation = posttraumatic checklist scale, neurovegetative subscale. STAI-State: The State Trait Anxiety Inventory State. CES-D= Center for Epidemiologic Studies Depression Scale.

Variable Group	Pretest	Post-test	3 month follow-up	6 month follow-up
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EMDR and CBT for Cancer Patients: Comparative Study of Effects on PTSD, Anxiety, and Depression

Liuva Capezzani

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EMDR Italy Association, Bovisio Masciago (MI), Italy

Roger Solomon

Buffalo Center for Trauma and Loss, Buffalo, NY

Marco Pagani

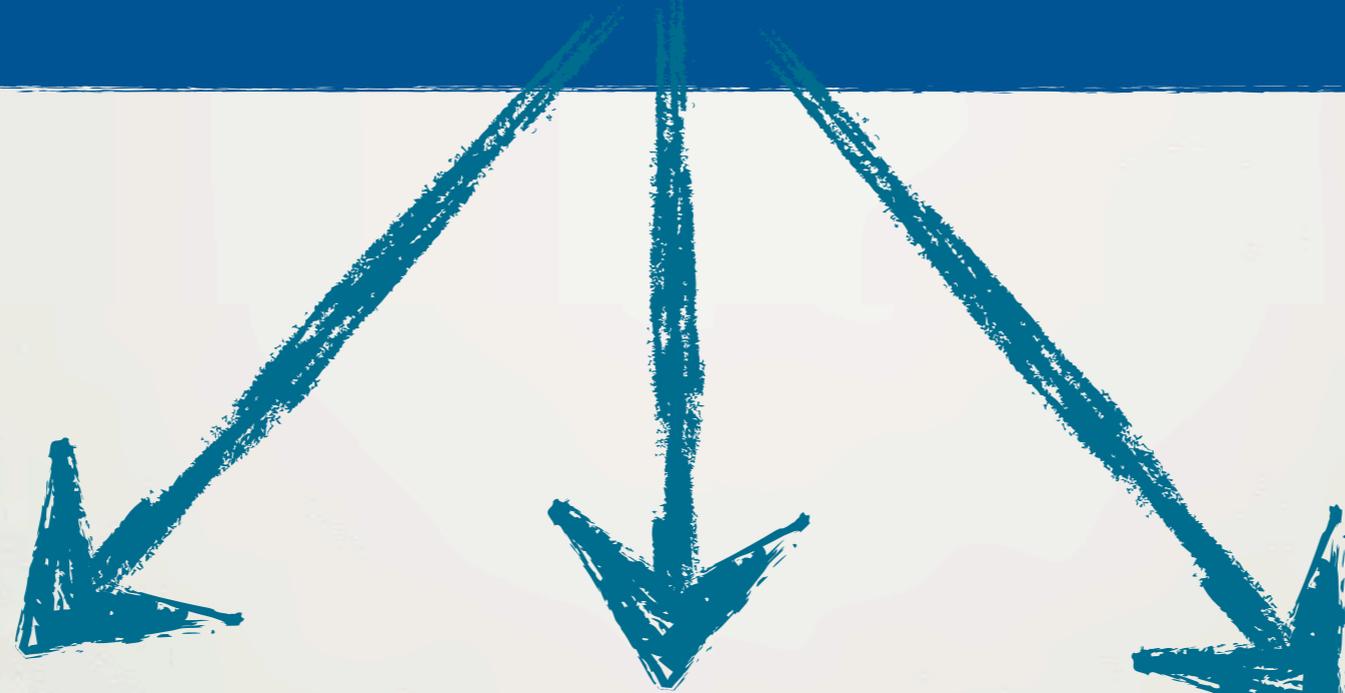
Institute of Cognitive Sciences and Technologies, CNR, Rome, Italy

Tonino Cantelmi

Psychiatry Department, Regina Elena National Cancer Institute, Rome, Italy



**Patients en oncologie avec ESPT
8 sessions de 90 minutes**



***EMDR + phase de
traitement active
contre le cancer
(n=10)***

**EMDR
(n=11)**

**CBT
(n=10)**

TABLE 1. Clinical Data of Participants in the Follow-up Phase of the Cancer Disease

	Pretreatment		Posttreatment		Sig.
	CBT (N = 10)	EMDR (N = 11)	CBT (N = 10)	EMDR (N = 11)	
QPF-R	61.60 (15.71)	57.45 (13.55)	54.50 (13.24)	48.45 (12.18)	*
STAI-1	45.40 (4.95)	44.73 (5.42)	43.90 (5.55)	40.00 (3.41)	*
STAI-2	46.50 (5.34)	45.82 (6.15)	43.80 (4.10)	43.55 (5.70)	
BDI-II	26.30 (8.73)	25.73 (10.89)	20.10 (9.24)	14.45 (9.30)	*
IES-R total	54.70 (10.62)	50.91 (9.45)	46.60 (14.13)	20.55 (17.85)	*, §
CAPS Criterion B	20.90 (7.71)	19.55 (8.15)	15.30 (5.87)	6.18 (6.95)	*, §
CAPS Criterion C	30.30 (8.13)	28.36 (12.19)	20.50 (7.59)	10.45 (7.54)	*
CAPS Criterion D	27.60 (6.22)	24.00 (8.15)	16.20 (9.16)	9.91 (5.61)	*

Note. Data are mean (SD). QPF-R = Psychophysiological Questionnaire—Brief Version; STAI-1 = State-Trait Anxiety Inventory—state anxiety; STAI-2 = State-Trait Anxiety Inventory—trait anxiety; BDI-II = Beck Depression Inventory-II; IES-R total = Impact of Event Scale—Revised total score; CAPS Criterion B = Clinician-Administered PTSD Scale—intrusion symptoms; CAPS Criterion C = Clinician-Administered PTSD Scale—avoidance symptoms; CAPS Criterion D = Clinician-Administered PTSD Scale—hyperarousal symptoms.

TABLE 1. Clinical Data of Participants in the Follow-up Phase of the Cancer Disease

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IES-R total	54.70 (10.62)	50.91 (9.45)	46.60 (14.13)	20.55 (17.85)	*, §
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	Pretreatment		Posttreatment		Sig.
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STAI-1	45.40 (4.95)	44.73 (5.42)	43.90 (5.55)	40.00 (3.41)	*
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TABLE 2. Clinical Variables of the Groups Treated With EMDR at Pre and Posttreatment

	Pretreatment		Posttreatment		Sig.
	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	
QPF-R	58.50 (9.70)	57.45 (13.55)	48.30 (9.65)	48.45 (12.18)	*
STAI-1	43.70 (3.37)	44.73 (5.42)	42.70 (3.50)	40.00 (3.41)	*
STAI-2	46.10 (5.65)	45.82 (6.15)	43.30 (4.55)	43.55 (5.70)	
BDI-II	27.00 (7.70)	25.73 (10.89)	15.50 (8.33)	14.45 (9.30)	*
IES-R total	48.50 (14.74)	50.91 (9.45)	28.60 (9.38)	20.55 (17.85)	*
CAPS Criterion B	20.70 (6.82)	19.55 (8.15)	6.20 (3.08)	6.18 (6.95)	*
CAPS Criterion C	22.50 (4.09)	28.36 (12.19)	7.40 (3.89)	10.45 (7.54)	*
CAPS Criterion D	19.90 (9.25)	24.00 (8.15)	6.60 (4.22)	9.91 (5.61)	*

Note. Data are mean (*SD*) or *N* (%). QPF-R = Psychophysiological Questionnaire—Brief Version; STAI-1 = State-Trait Anxiety Inventory—state anxiety; STAI-2 = State-Trait Anxiety Inventory—trait anxiety; BDI-II = Beck Depression Inventory-II; IES-R total = Impact of Event Scale—Revised total score; CAPS Criterion B = Clinician-Administered PTSD Scale—intrusion symptoms; CAPS Criterion C = Clinician-Administered PTSD Scale—avoidance symptoms; CAPS Criterion D = Clinician-Administered PTSD Scale—hyperarousal symptoms.

* significant pre-post effect, independent of the phase of the disease (active treatment vs. follow-up)

TABLE 2. Clinical Variables of the Groups Treated With EMDR at Pre and Posttreatment

	Pretreatment		Posttreatment		Sig.
	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	
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Note. Data are mean (SD) or N (%). QPF-R = Psychophysiological Questionnaire—Brief Version; STAI-1 = State-Trait Anxiety Inventory—state anxiety; STAI-2 = State-Trait Anxiety Inventory—trait anxiety; BDI-II = Beck Depression Inventory-II; IES-R total = Impact of Event Scale—Revised total score; CAPS Criterion B = Clinician-Administered PTSD Scale—intrusion symptoms; CAPS Criterion C = Clinician-Administered PTSD Scale—avoidance symptoms; CAPS Criterion D = Clinician-Administered PTSD Scale—hyperarousal symptoms.

* significant pre-post effect, independent of the phase of the disease (active treatment vs. follow-up)

TABLE 2. Clinical Variables of the Groups Treated With EMDR at Pre and Posttreatment

	Pretreatment		Posttreatment		Sig.
	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	Active Cancer Treatment (N = 10)	Follow-up Cancer Treatment (N = 11)	
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BDI-II	27.00 (7.70)	25.73 (10.89)	15.50 (8.33)	14.45 (9.30)	*
IES-R total	48.50 (14.74)	50.91 (9.45)	28.60 (9.38)	20.55 (17.85)	*
CAPS Criterion B	20.70 (6.82)	19.55 (8.15)	6.20 (3.08)	6.18 (6.95)	*
CAPS Criterion C	22.50 (4.09)	28.36 (12.19)	7.40 (3.89)	10.45 (7.54)	*
CAPS Criterion D	19.90 (9.25)	24.00 (8.15)	6.60 (4.22)	9.91 (5.61)	*

Note. Data are mean (SD) or N (%). QPF-R = Psychophysiological Questionnaire—Brief Version; STAI-1 = State-Trait Anxiety Inventory—state anxiety; STAI-2 = State-Trait Anxiety Inventory—trait anxiety; BDI-II = Beck Depression Inventory-II; IES-R total = Impact of Event Scale—Revised total score; CAPS Criterion B = Clinician-Administered PTSD Scale—intrusion symptoms; CAPS Criterion C = Clinician-Administered PTSD Scale—avoidance symptoms; CAPS Criterion D = Clinician-Administered PTSD Scale—hyperarousal symptoms.

* significant pre-post effect, independent of the phase of the disease (active treatment vs. follow-up)



5. Questions et perspectives pour la recherche et la clinique

- EMDR et principe(s) actif(s)
- EMDR et approches qualitatives
- EMDR efficacité versus efficience
- EMDR et maladies chroniques (ETP)
- L'EMDR la psychothérapie de l'ESPT??



MERCI pour votre attention !

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