



证道心理

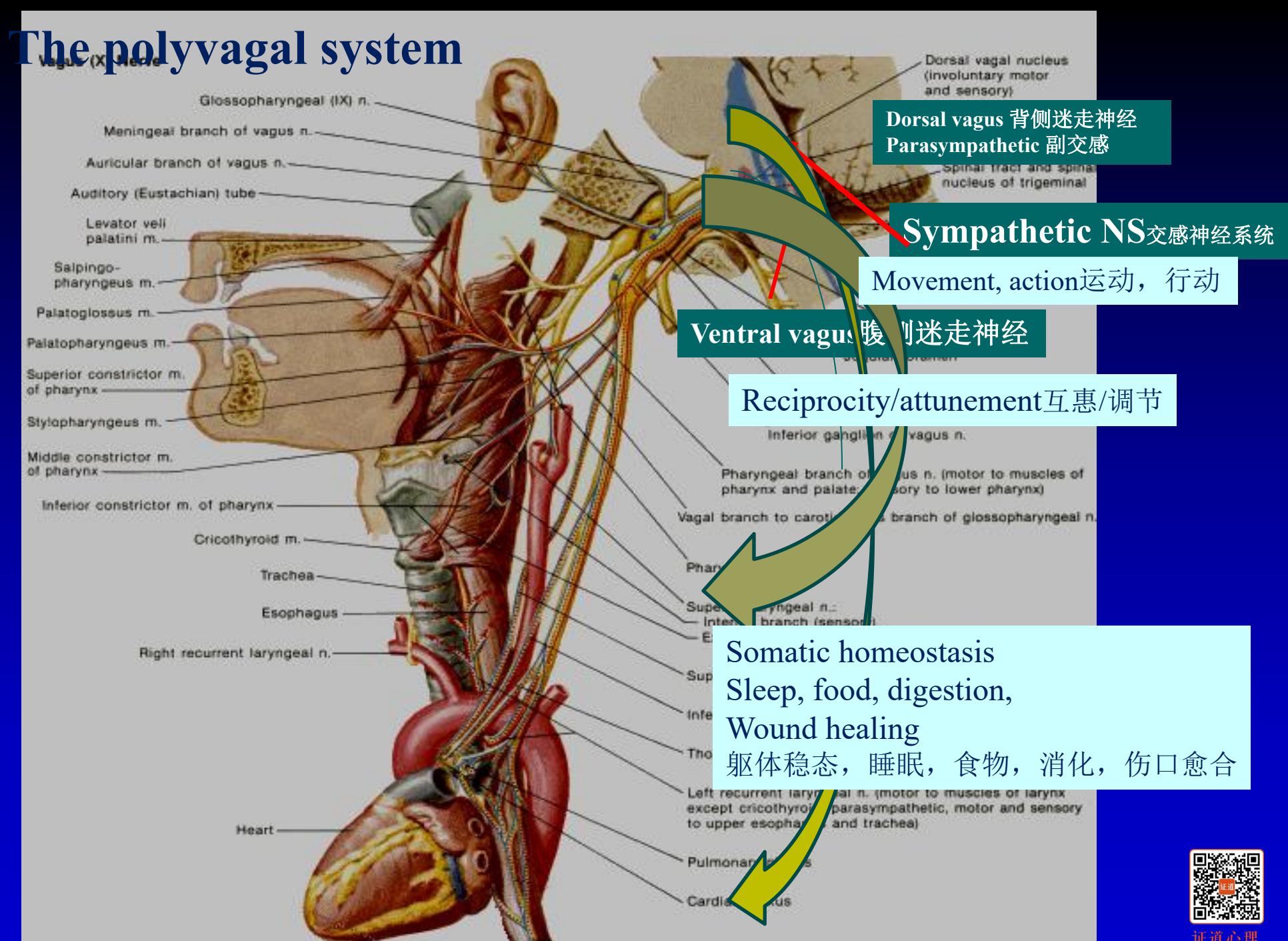
JOHN

**Aged 17 months
For nine days
in a residential nursery**



证道心理

The polyvagal system



证道心理

Polyvagal theory迷走神经理论

- an organizing principle to understand neural regulation of the autonomic nervous system as a facilitator of social behavior
理解自主神经系统促进社会行为的神经调节的组织原则。
- three neural circuits form of phylogenetically ordered response hierarchy that regulates behavioral and autonomic agitation to 1) safe, 2) dangerous, and 3) life-threatening environments
三种神经回路形式的系统发育次序反应层次结构，针对1) 安全 2) 危险 3) 危及生命的环境，调节行为和自主性兴奋。
- the state of the autonomic nervous system determines capacity for social relationships
自主神经系统状态决定了社会关系的能力。



Five physiological states; each linked with a specific biologically based behavioral repertoire.

五种生理状态；每个都与特定的基于生物学的行为内容有关

- 1) **Social engagement:** A state dependent on a well-defined social engagement system. Promotes positive social interactions, reduces psychological distance, and promotes a sense of safety.
 - 2) **Mobilization- fight/flight:** This state supports fight and flight behaviors and requires an increase in metabolic output.
 - 3) **Play:** A blend of the above. Play is a hybrid state requiring features from both states of mobilization and social engagement.
 - 4) **Immobilization- Life threat:** characterized by a reduction of metabolic output and shutdown behaviors. Works fine for reptiles but is potentially lethal in mammals.
 - 5) **Immobilization without fear:** associated with prosocial and positive states that require a reduction of movement without massive reduction of metabolic resources. Recruits pathways from the immobilization circuit; used during nursing, childbirth, and reproductive behaviors, digestion and restoration processes.
- 1) 社会参与：依赖于明确的社会参与系统的状态。促进积极的社交互动，减少心理距离，促进安全感。
 - 2) 动员 - 战斗/逃跑：这种状态支持战斗和逃跑行为，并且需要增加代谢产物。
 - 3) 游戏：以上的混合。游戏是一个混合状态，需要来自动员和社交参与状态的特征。
 - 4) 不动- 生命威胁：特征在于减少代谢产物，切断外界联系。适用于爬行动物，但在哺乳动物中可能致命。
 - 5) 无恐惧地不动：与亲社会和积极状态相关联，需要减少运动而不大量消耗代谢资源。从固定环路中获取路径；用于喂养、分娩和生殖行为，以及消化和恢复过程。



Three phylogenetic stages of neural development of the autonomic nervous system

自主神经系统神经发育的三个系统发育阶段

- stage I. Primitive unmyelinated Vagus (DVC)
阶段I, 原始无髓鞘迷走神经 (DVC)
 - immobilization – fainting, shut down, dissociation 不动- 晕倒, 关闭, 解离
- stage II. Sympathetic nervous system
阶段II: 交感神经系统
 - flight fight behaviors – temper tantrums 逃跑战斗行为-脾气暴躁
- stage III: myelinated mammalian vagus (VVC)
阶段III: 有髓鞘的哺乳动物迷走神经 (VVC)
 - social communication 社交沟通
 - reciprocity 互惠
 - synchronicity of muscles, voices and faces 肌肉, 声音和面孔的同步性



Co – regulation 共同调节

a biological imperative; 一种生物学法则

“the fittest may also be the gentlest, because survival often requires mutual help and cooperation”.

“最适应的人也可能是最温和的，因为生存往往需要互助和合作”。

Dobzhansky, T , 1962, Mankind evolving. New Haven, CT,
Yale University press.





证道心理

ASK ME ABOUT

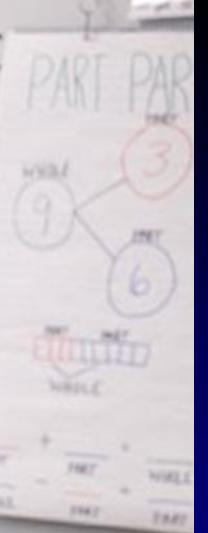
MATH

How can you show adding to and taking from a number?

SCIENCE

How can you sort objects by how heavy or light they are?

DIVE



Co – regulation; a biological imperative共同调节；一种生物学法则

- the body needs to co – regulate bodily states through engagement with others
- connectedness is the ability to mutually (synchronously and reciprocally) regulate physiological and behavioral states.
- Connectedness provides the neurobiological mechanism between social behavior and both mental and physical health.
- Music, rhythms, synchronous & reciprocal movements bedrock of connectedness and co-regulation.
- 身体需要通过与他人的接触来共同调节身体状态
- 连接是相互（同步和相互）调节生理和行为状态的能力。
- 连接提供了社会行为与身心健康之间的神经生物学机制。
- 音乐、韵律、同步与交互的动作是连结与共同调节的基础。



证道心理

Trauma: chronic inability to co-regulate

创伤：长期无法共同调节

- Always accompanied by shift in autonomic arousal
- Distorts social awareness
- Displaces social engagement behavior with defensive reactions
- Fight/flight
- Immobilization (dissociation)
- interferes with healthy reciprocal co-regulation, and genuine mutuality

始终伴随着自主觉醒的转变

社会意识歪曲

用防御反应取代社会参与行为

战斗/逃跑

不动（解离）

干扰健康的互惠共同调节和真正的相互关系



The face to heart connection: a critical component of social engagement

从面孔到心的联系：社会参与的重要组成部分

- At birth mammals have bidirectional neural communication between the face of the heart, which forms the core of the social engagement system
- Metabolic demands, perceived danger, life stress, and illness retract the social engagement system, resulting in a face that is not “social” and a physiological state (removal of the vagal break on the heart) that promotes defensive behaviors).
- The face reflects polyvagal state
- Music and physical synchr
- 出生时，哺乳动物在面部与心脏之间具有双向神经性沟通，构成了社会参与系统的核心
- 代谢需求，感知危险，生活压力和疾病使社会参与系统收缩，导致一张非“社交”的脸和一种促进防御行为的生理状态(去除心脏迷走神经损伤)。
- 脸部反映了迷走神经状态
- 音乐和躯体同步



The social engagement system 社会参与系统

observable deficits during mental and physical illness 在精神和身体疾病期间可观察到的缺陷

- lack of vocal prosody 缺乏声乐韵律
- poor eye contact and difficulties in social communication
眼神接触差，社交沟通困难
blunted facial expressivity 面部表情迟钝
- difficulties in state regulation (hypervigilance, anxiety, distractibility, impulsivity, tantrums, dissociation and shutting down) 状态调节困难（过度警觉，焦虑，注意力分散，冲动，发脾气，解离和切断联系）
- difficulties listening, following verbal commands, speech and language problems 倾听、遵守口头命令困难，说话和语言问题
- sound sensitivities 对声音敏感



证道心理

Why is this important? 为何重要？

We can stimulate the pathways of mutuality and reciprocity with the way we move our voices, faces and bodies
我们可以通过改变声音、面部和身体的方式来激发相互关系和互惠的途径。



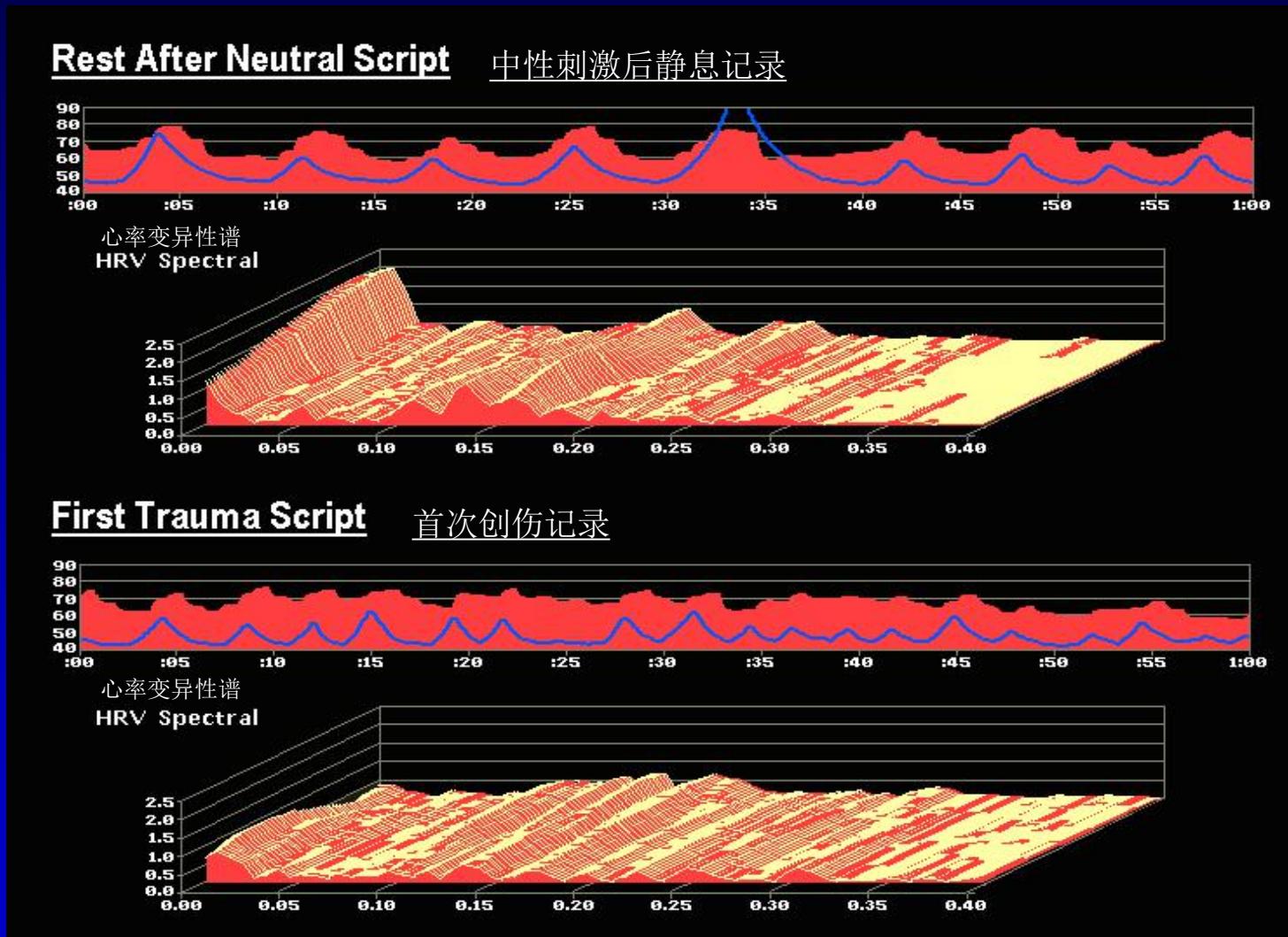
Heart Rate Variability (HRV)

心率变异性



证道心理

Images of Relative Health: Multiple Oscillators of an Excluded Subject 相对健康者的图像：一例被剔除者的多重振荡（波）

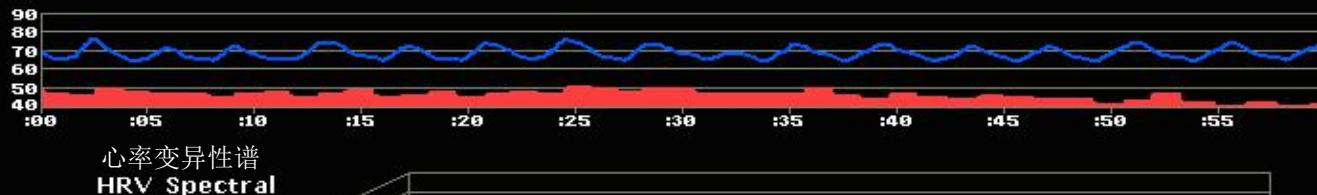


证道心理

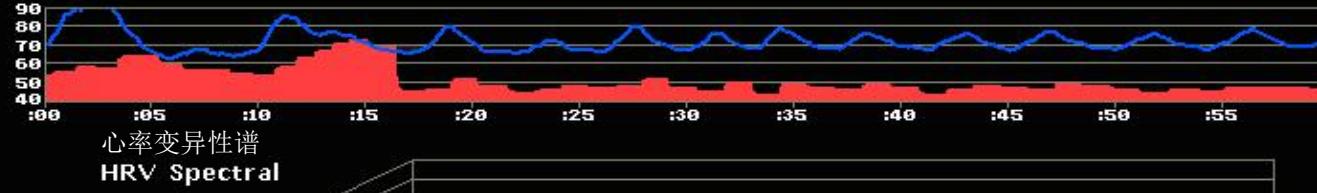
Images of Dysregulation: Constraint Can Lead to Over-Reactions

失调图像：约束导致过度反应

Baseline HRV 基线心率变异性

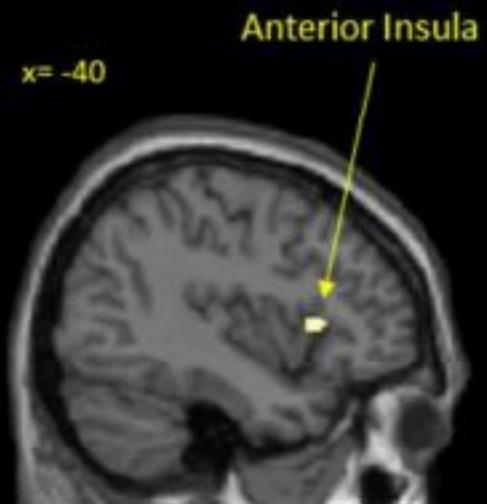


Second Trauma Script 二次创伤记录



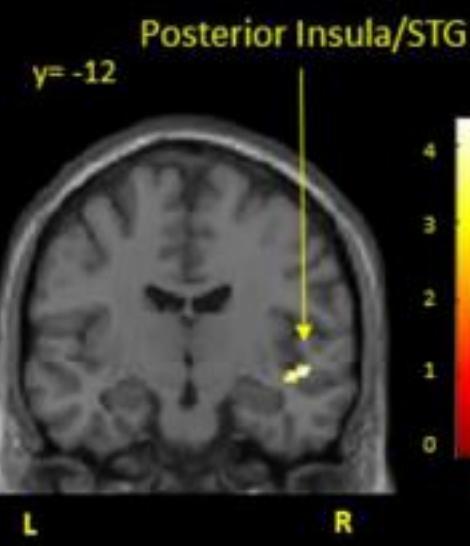
证道心理

A) Subliminal processing 阈下加工

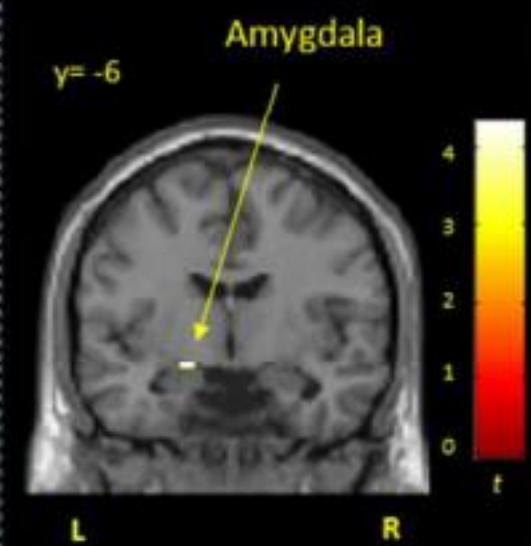


Controls>PTSD
对照>PTSD

B) Supraliminal processing 阈上加工



Controls>PTSD
对照>PTSD



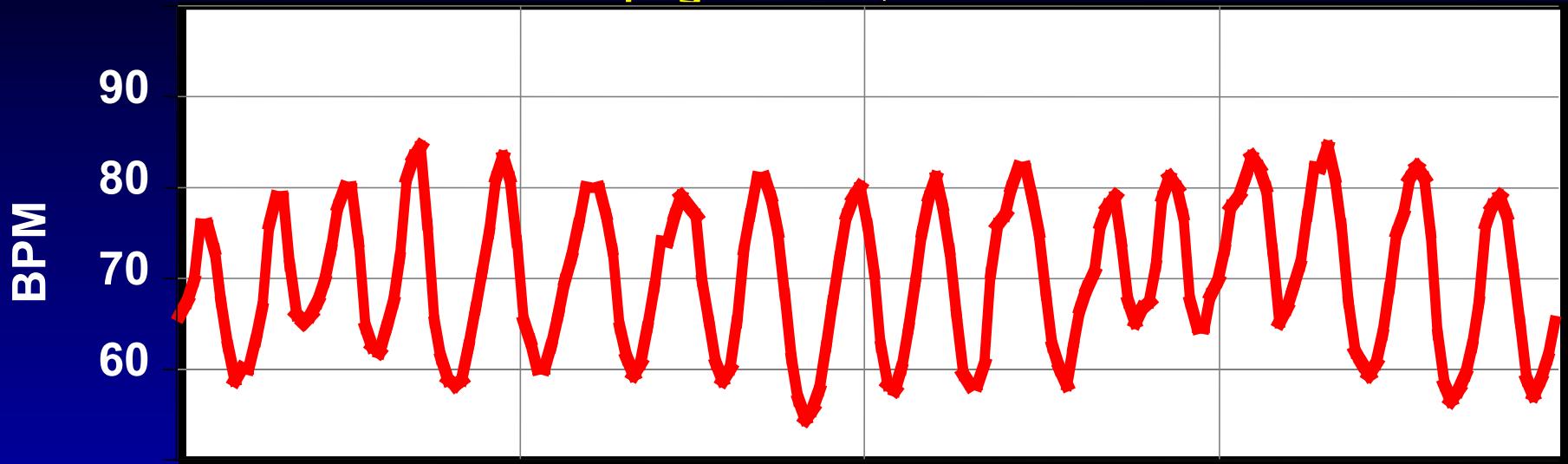
PTSD>Controls
PTSD>对照



High HRV

高HRV

每分钟心跳次数

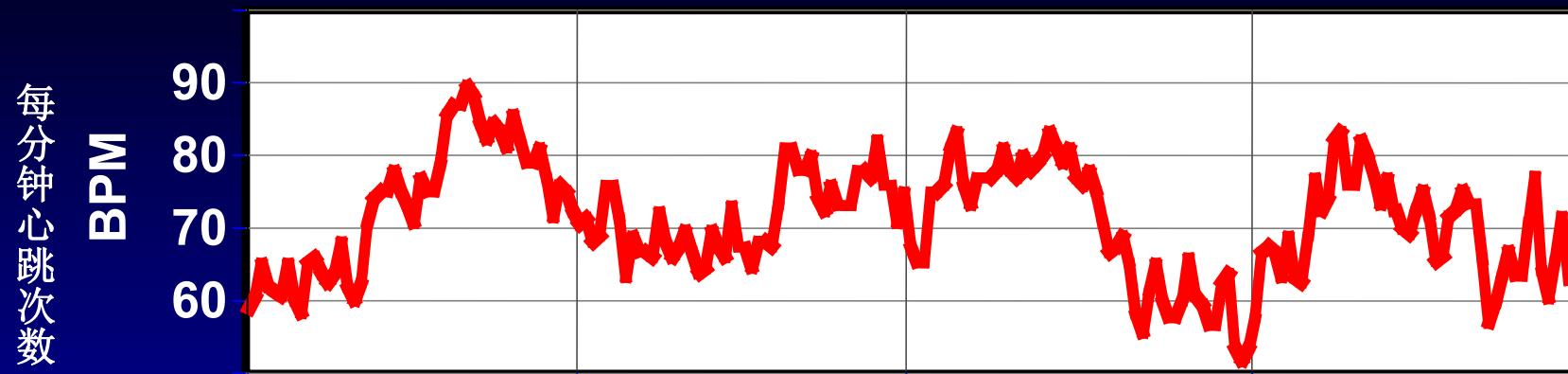


- Coherence 凝聚一致性
- Positive emotions 积极情绪
McCraty et al., 1995 *Am. J. Card.*
- Predicts resistance to stress 预测对应激的阻抗
Porges et al., 1996 *Dev. Psychobiology*
Katz & Gottman, 1997 *J Clin Child Psychol*



证道心理

Low HRV 低HRV

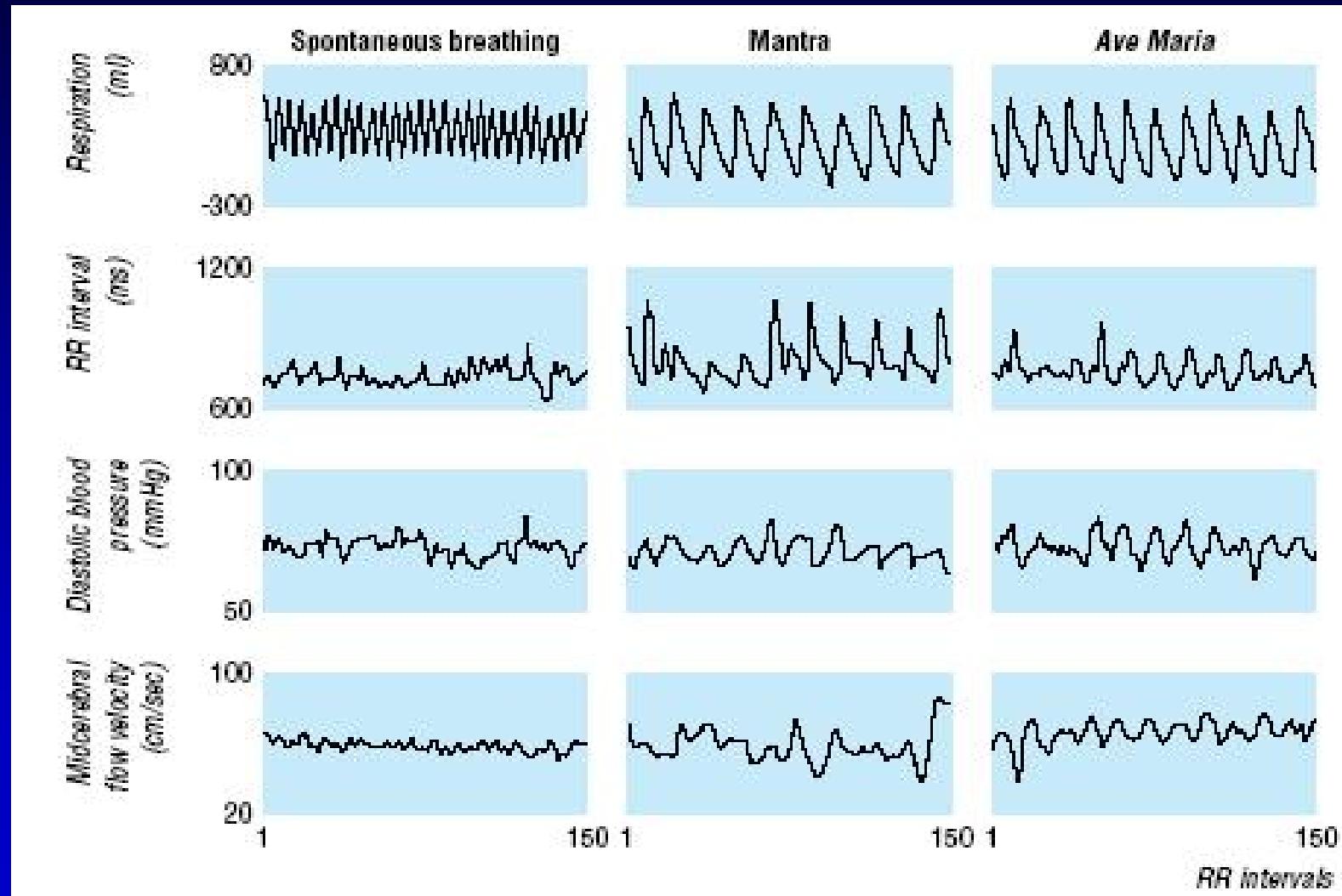


- Anxiety and depression 焦虑与抑郁
Carney et al., 1988 *J Psychosom. Res.*
McCraty et al, 2001 *Bio. Psychol.*
Rechlin et al. 1994 *J. Affect. Dis.*
Shibagaki & Furuya, 1997 *Percep. Mot. Skills*
- Predictor of mortality : Heart disease, cancer, etc. Tsuji et al., 1994 *Circulation*; Dekker et al., 1997 *Am. J. Epidemiol.*; La Rovere et al., 1998, *Lancet*
死亡的预测因素：心脏病，癌症，等



Prayer / Mantras

祈祷者/祷告者



Bernardi, et al., 2001 BMJ



证道心理



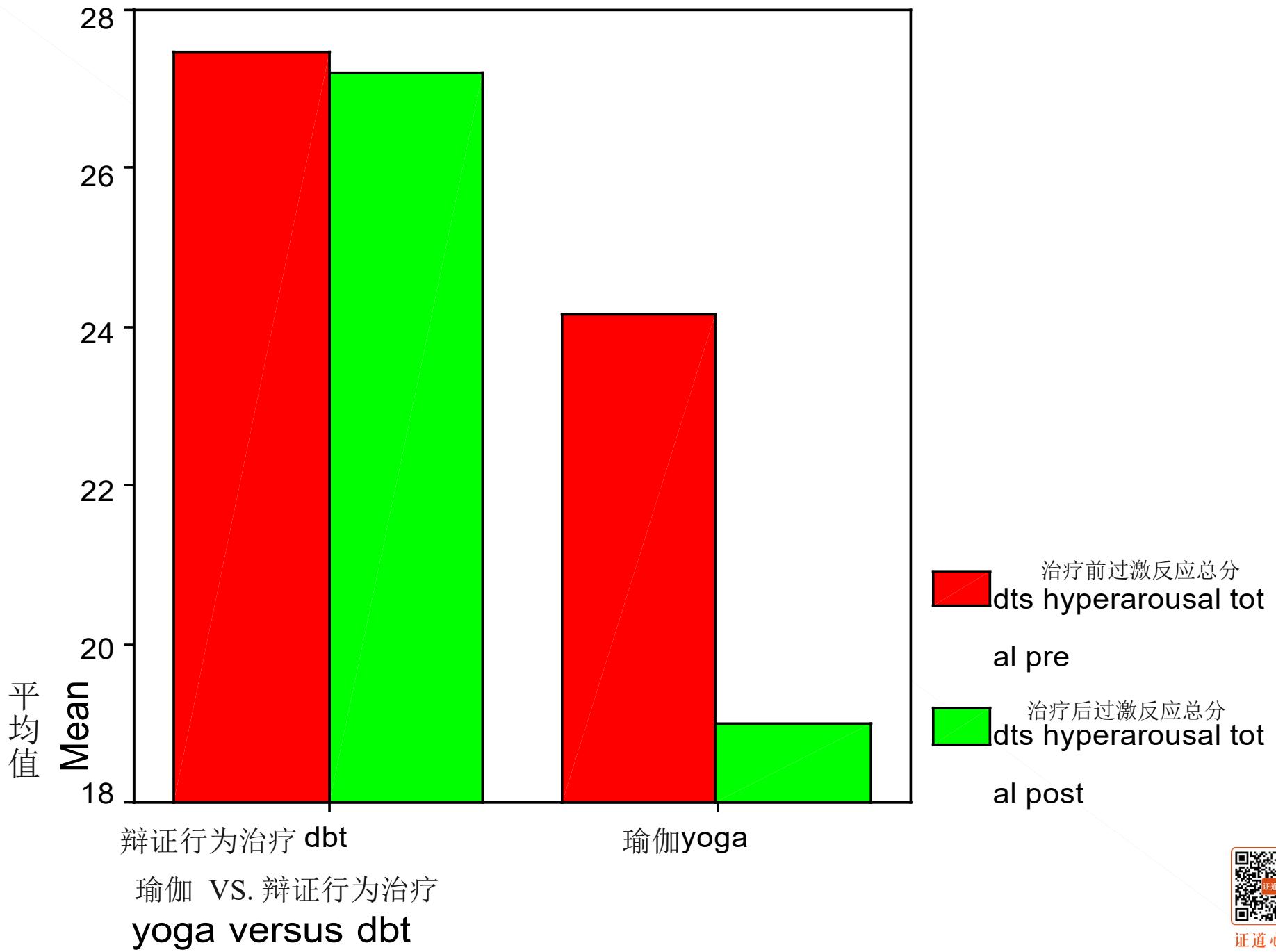
My Calm Beat
我平静的心跳



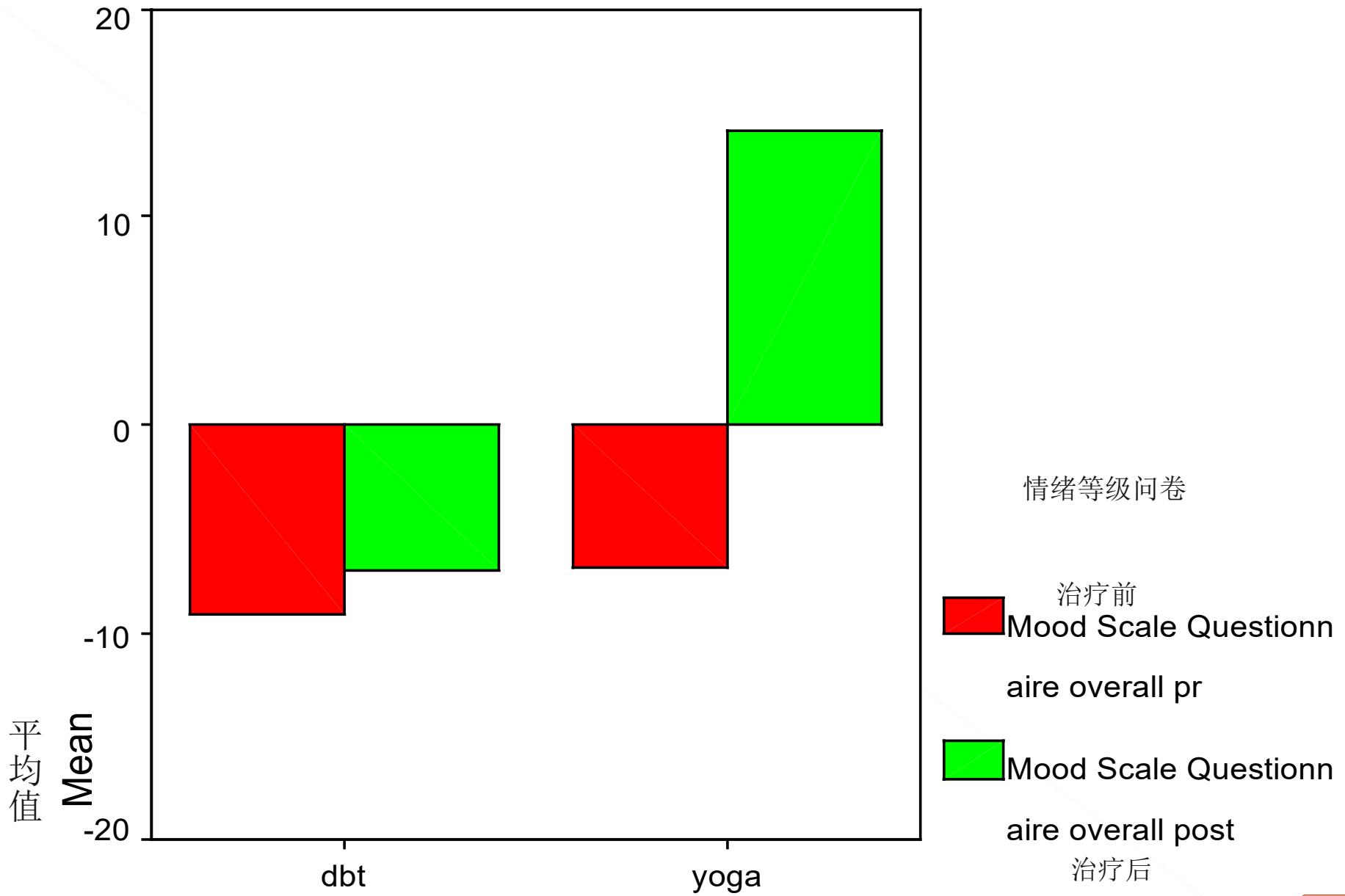
证道心理



证道心理



证道心理



瑜伽 VS. 辩证行为治疗
yoga versus dbt

情绪等级问卷

治疗前
Mood Scale Questionnaire

aire overall pr

Mood Scale Questionnaire

aire overall post

治疗后



证道心理

Does yoga change HRV in Normals ?
瑜伽会改变正常人的心率变异性吗?

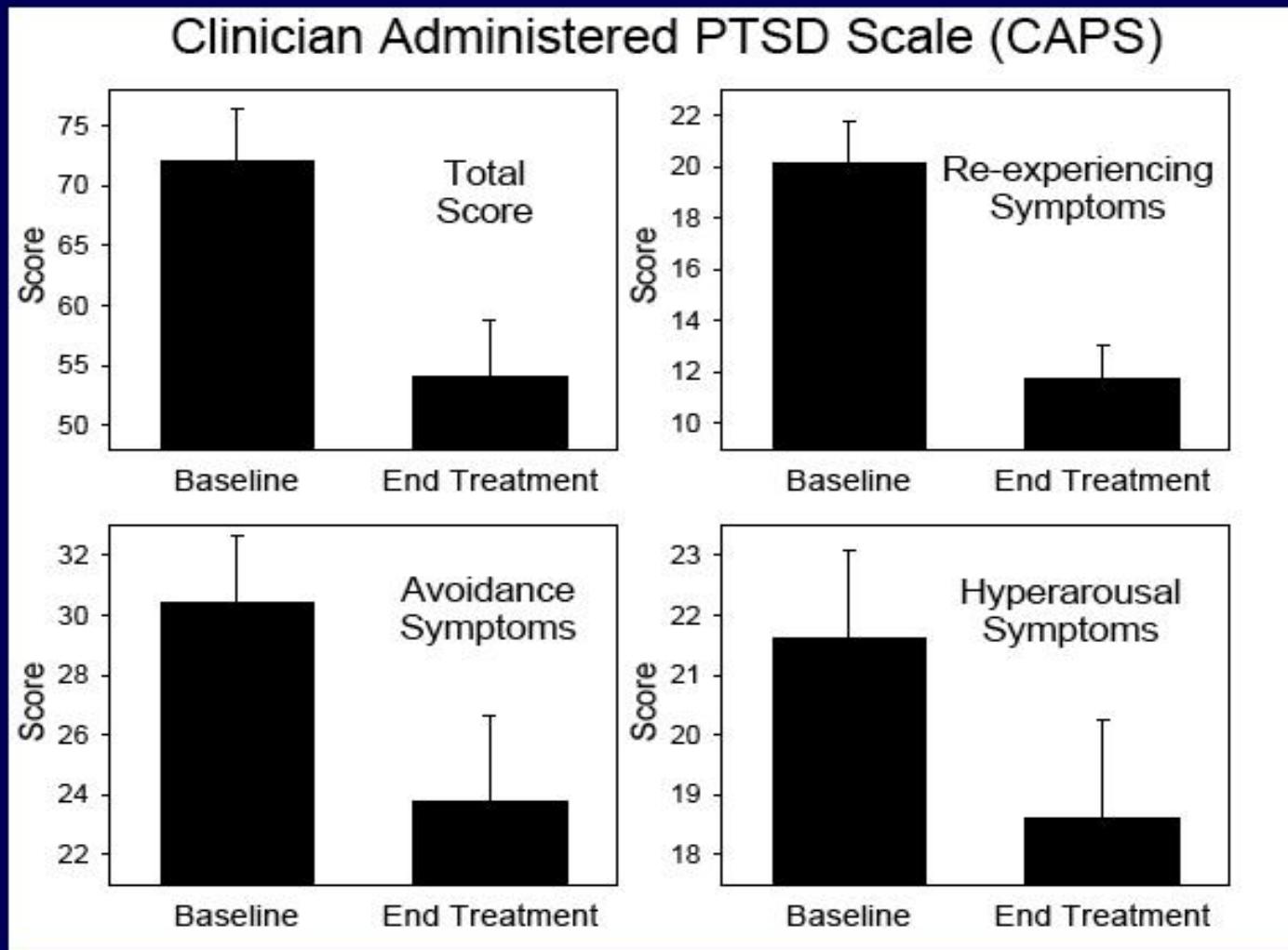
	Mean	Standard deviation	95% confidence interval	F	P value		
sd, pre sess 1 - last available sdnn	-12.777	16.76	-25.66	.106	-2.27	8	.052



证道心理

Yoga for PTSD

瑜伽对PTSD患者的疗效



From: *Clinical implications of neuroscience research in PTSD*. van der Kolk BA,
Annals of the New York Academy of Science 1071:277-93, 2006.



证道心理

Measure		治疗前		Post-Treatment		治疗后	前后改变值		
		Pre-Treatment	M (SD)	Post-Treatment	M (SD)		b	t	d
Total CAPS severity	Yoga	73.94	(20.83)	49.48	(25.16)	Yoga	-24.45 ***	-5.84	-1.07
	Control	76.66	(20.83)	63.49	(25.48)	Control	-13.17 **	-3.62	-0.35
						Grp x Time	-14.74 *	-2.16	-0.41
Des	Yoga	16.80	(9.99)	14.11	(10.89)	Yoga	-2.68	-1.89	-0.35
	Control	18.06	(13.65)	19.78	(14.56)	Control	1.72	0.77	-0.22
						Grp x Time	-4.40	-1.56	-0.31
IAS-TR	Yoga	73.66	(14.20)	67.17	(15.32)	Yoga	-6.49 *	-2.40	-0.44
	Control	67.97	(13.81)	68.51	(17.17)	Control	0.54	0.17	-0.04
						Grp x Time	-7.03	-1.69	-0.31
IAS-AD	Yoga	76.69	(14.83)	68.88	(13.31)	Yoga	-7.81 **	-3.26	-0.60
	Control	75.50	(13.49)	69.48	(14.26)	Control	-6.02 *	-2.06	-0.38
						Grp x Time	-1.79	-0.48	-0.09

* p < .05; ** p < .01; *** p < .001; M = mean; SD = Standard Deviation; b = unstandardized regression coefficient; t = t-statistic; d = Cohen's d; CAPS = Clinician Administered PTSD Scale; DES = Dissociative

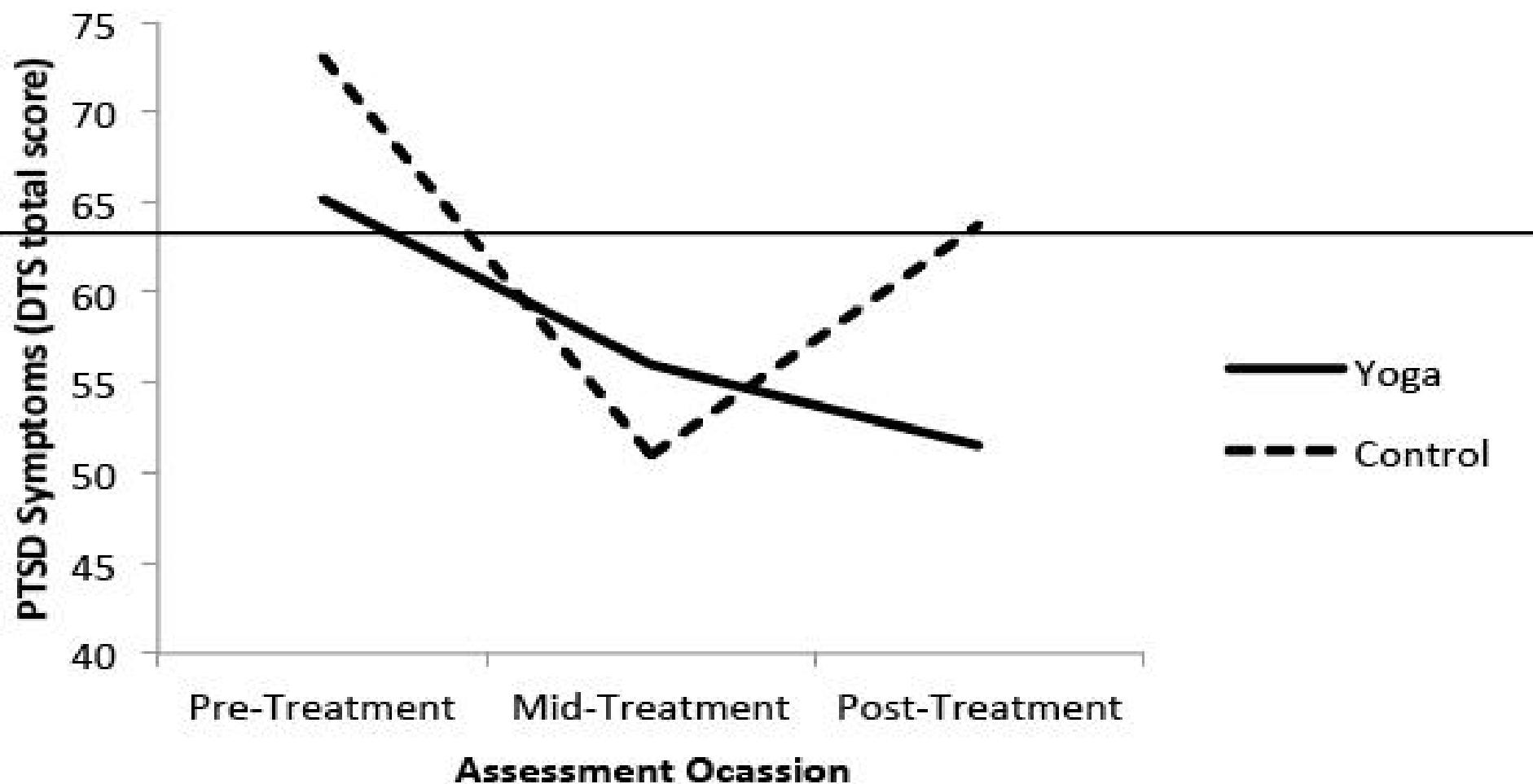
Table 3. Outcomes Administered at Three Assessment Occasions

Measure	Descriptives						Change Parameters					
	Pre-Treatment		Mid-Treatment		Post-Treatment		Linear Change			Quadratic Change		
	M	(SD)	M	(SD)	M	(SD)	b	t	d	b	t	d
DTS	Yoga	65.17 (23.50)	56.01 (26.59)	51.49 (24.09)	Yoga	-6.84 **	-3.25	-0.52	0.79	0.66	0.11	
	Control	73.06 (25.86)	50.96 (24.91)	63.75 (28.81)	Control	-4.66	-1.82	-0.29	5.82 *	2.86	0.46	
					Grp x Time	-5.07	-0.86	-0.10	-5.03 *	-2.13	-0.34	
BDI-II	Yoga	20.89 (11.13)	19.23 (13.59)	13.92 (9.91)	Yoga	-3.49 ***	-3.77	-0.60	-0.57	-1.20	-0.19	
	Control	24.06 (11.47)	19.51 (11.65)	19.47 (11.91)	Control	-2.29 *	-2.44	-0.39	0.78	1.28	0.20	
					Grp x Time	-3.02	-1.07	-0.14	-1.34	-1.75	-0.28	

* $p < .05$; ** $p < .01$; *** $p < .001$; Abbreviations: M = mean; SD = Standard Deviation; b = unstandardized regression coefficient; t = t-statistic; d = Cohen's d; DTS = Davidson Trauma Scale; BDI-II = Beck Depression Inventory-II.



Figure 1. Change in Davidson Trauma Scale (DTS) as a function of Group.



ORIGINAL ARTICLE

Effectiveness of an Extended Yoga Treatment for Women with Chronic Posttraumatic Stress Disorder

Maggi Price, MA,^{1,2} Joseph Spinazzola, PhD,^{1,3} Regina Musicaro, ALM,^{1,2}
Jennifer Turner, MA, E-RYT,¹ Michael Suvak, PhD,^{1,2}
David Emerson, E-RYT,¹ and Bessel van der Kolk, MD^{1,4}

Abstract

Background: Yoga has been found to be an effective posttraumatic stress disorder (PTSD) treatment for a variety of trauma survivors, including females with chronic PTSD.

Aim/Purpose: The current study builds on extant research by examining an extended trauma-sensitive yoga treatment for women with chronic PTSD. The study sought to optimize the results of a treatment protocol examined in a recent randomized controlled trial with a shorter duration and without assignment or monitoring of home practice.

Materials and Methods: The authors examined a 20-week trauma-sensitive yoga treatment in a non-randomized single-group treatment feasibility study for women with chronic treatment-resistant PTSD ($N=9$). The authors examined PTSD and dissociation symptom reduction over several assessment periods.

Results: The results indicate that participants experienced significant reductions in PTSD and dissociative symptomatology above and beyond similar treatments of a shorter duration.

Conclusions: The findings suggest that more intensive trauma-sensitive yoga treatment characterized by longer duration and intentional assignment and monitoring of home practice may be more advantageous for individuals with severe and chronic PTSD. The implications of the findings for the potentially more substantial role of yoga as an intervention for a subset of adults with chronic treatment-resistant PTSD are discussed.

Keywords: PTSD, yoga, chronic PTSD, PTSD treatment

Introduction

YOGA IS AMONG the most widely used complementary healthcare practices in the United States¹ and has been found to be promising for the treatment of a variety of mental and physical health problems, including posttraumatic stress disorder (PTSD).^{2,3} Yoga is hypothesized to be helpful for individuals with PTSD because the mindfulness it fosters can lead to increased emotion regulation, as noticing fear-related sensations can counteract avoidance symptoms.⁴ Individuals with PTSD also show impaired awareness of bodily sensations and a lack of cognizance of the connection between environmental stimuli and internal reactions^{5,6}—two areas that are addressed in yoga.⁷

Research indicates that time-limited yoga treatment (i.e., lasting ≤ 10 weeks) may be effective for treating PTSD and related symptoms in tsunami survivors,⁸ veterans,^{9,10} military personnel,¹¹ and survivors of intimate partner violence.¹² Case studies also suggest that yoga may be helpful for traumatized youth in residential care.¹³ In addition, yoga treatments have been specifically designed for trauma survivors.^{7,14,15} While some research has failed to find a significant difference between yoga treatment and control conditions,¹⁶ a notable randomized controlled trial (RCT) indicated that adult participants with PTSD who completed an eight-session Kundalini yoga treatment exhibited significant improvement in PTSD symptomatology and greater changes in perceived stress, anxiety, and resilience

¹The Trauma Center at Justice Resource Institute, Brookline, Massachusetts.

²Department of Counseling, Developmental, and Educational Psychology, Boston College, Newton, Massachusetts.

³Department of Psychology, Suffolk University, Boston, Massachusetts.

⁴Department of Psychiatry, Boston University School of Medicine, Boston, MA.



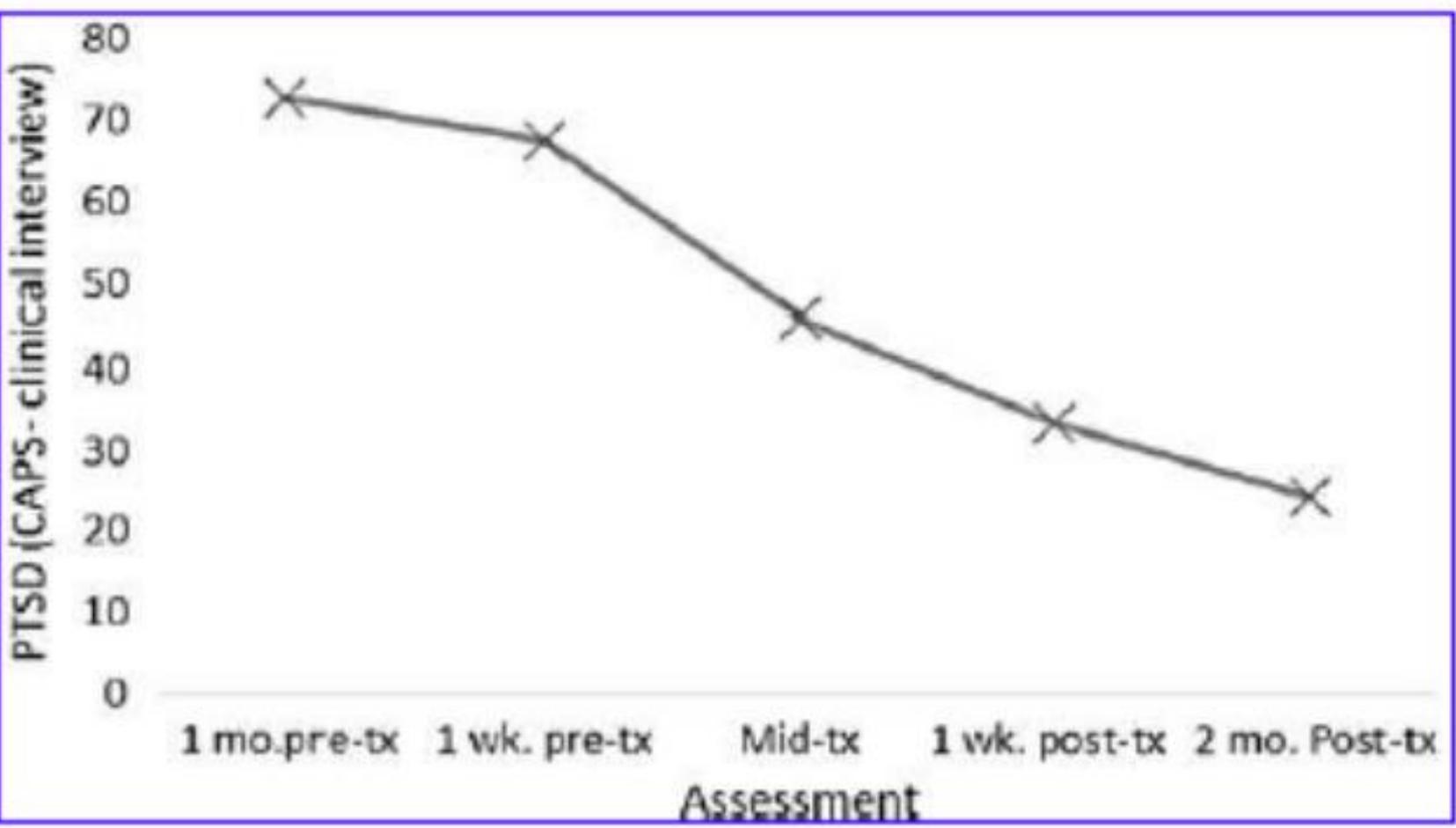


FIG. 1. Change in Clinician Administered PTSD Scale (CAPS). Estimates derived from the piecewise growth curve model conducted to evaluate change in CAPS. x-Axis: assessment; y-axis: PTSD (CAPS—clinical interview). PTSD, posttraumatic stress disorder.



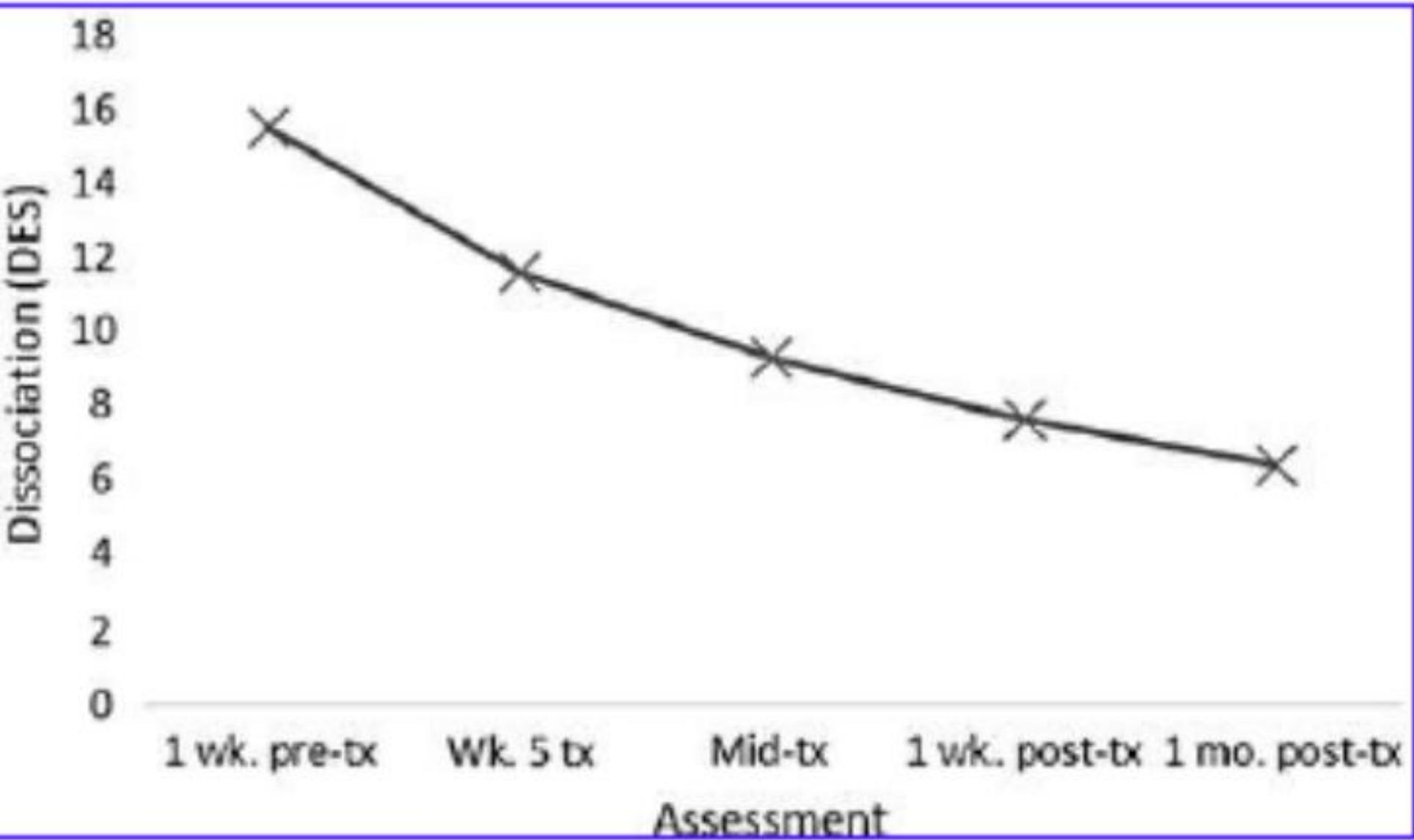


FIG. 3. Change in dissociation. Estimates derived from the HLM analysis conducted to evaluate change in Dissociative Experiences Scale (DES). x-Axis: assessment; y-



Qualitative 定性

- Having grown up obese and self-conscious it was wonderful to be able to move gently
- I felt much more in touch with my body
- I learned to be able to focus and sense where my body was
- I was able to go shopping and know what I needed.
- I felt stronger and more balanced
- Connecting with my body
- Learning to focus
- I have always hated my body and I learned how to take care of it

长大变胖，有自我意识，能够轻轻地移动是很棒的
我觉得我能更多触及时自己的身体

我学会了能够集中注意力并感知身体的位置
我能够去购物，知道我需要什么。

我感觉更强壮，更平衡

与我的身体连接

学会专注

我一直讨厌自己的身体，我学会了如何照顾它



“Yoga is about looking inward, instead of outward, and listening to my body. A lot of my survival has been geared around never doing those things”. “I have been refusing to listen to my body, which is such an important part of who I am. ~~w.~~ I am so disconnected from my body when I cut it”.

“In the yoga class I tried just noticing the sensations in my body and I noticed that when we did that pose where you thread one arm through the other and twist I felt like the pelvic part of my body was all there was to me”.

“I slowly learned to just have my feelings, without being hijacked by them”. “Life is more manageable: I am more attuned to my day and more present in the moment. I am more tolerant of physical touch”. “My husband and I are enjoying watching movies cuddled together in bed, a huge step. I finally can feel intimate with my husband”.

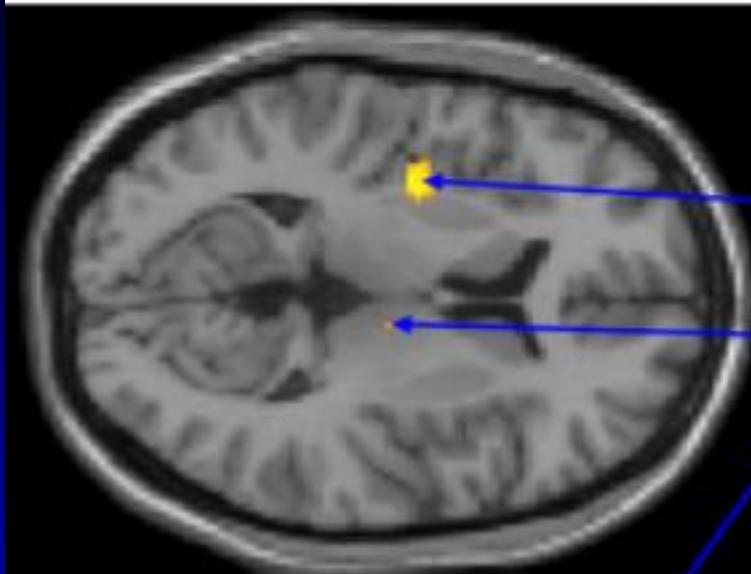
“瑜伽是向内看，而不是向外看，并且倾听我的身体。我生存的常态是从不做那些事情“。“我一直拒绝倾听我的身体，这是我的身份的重要组成部分。当我割伤我自己时，我与我的身体是这么远。

“在瑜伽课上，我试着注意到我体内的感觉，我注意到当我们做那个姿势时，你将一只手臂穿过另一只手臂并且扭动，我觉得身体的骨盆部位就是我的全部”。

“我慢慢学会了拥有自己的感受，而不是被它们劫持”。 “生活更容易管理：我更适应我的一天，更能活在当下。更能忍受身体接触“。“我和丈夫正依偎在床上一起欣赏电影，这是一个巨大的进步。我终于可以感受与丈夫的亲密了”。



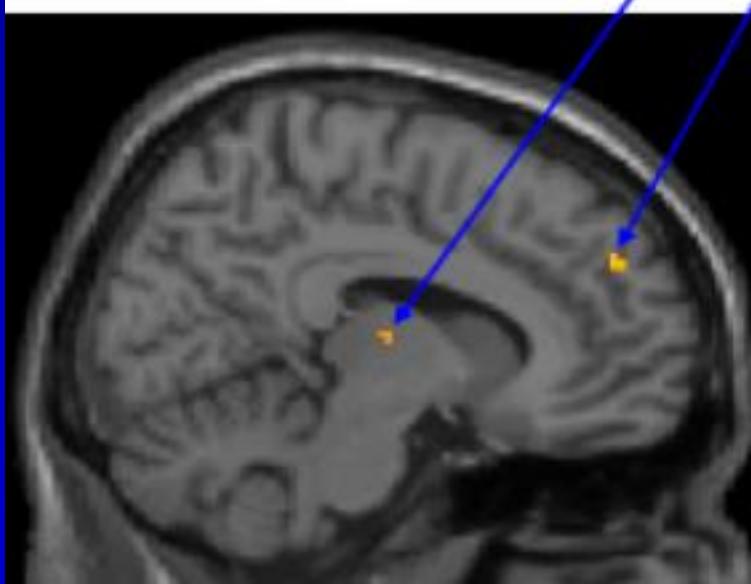
**Yoga Participants(n=6) Greater Than Control(n=2),
Post-Yoga Greater Than Pre-Yoga**



Left Insula 左脑岛

Right Thalamus 右丘脑

Right Dorsomedial Prefrontal Cortex
右背内侧前额叶皮质



Van der Kolk & Lanius 2012



证道



ALIZA
& THE MIND JAR



证道心理



证道

心理

“Processing” traumatic memories “加工”创伤记忆



证道心理



11:13AM
DEC. 29 1994



证道心理



12:36PM
JAN 11

我今天要做的是
And what I want to do is

截屏



证道心理

EMDR vs. fluoxetine vs. placebo

EMDR vs 氟西汀 vs 安慰剂

R01MH58363

Bessel van der Kolk MD

Joseph Spinazzola PhD

James Hopper PhD

Margaret Blaustein, PhD

Elisabeth Hopper PhD

Deborah Korn PhD

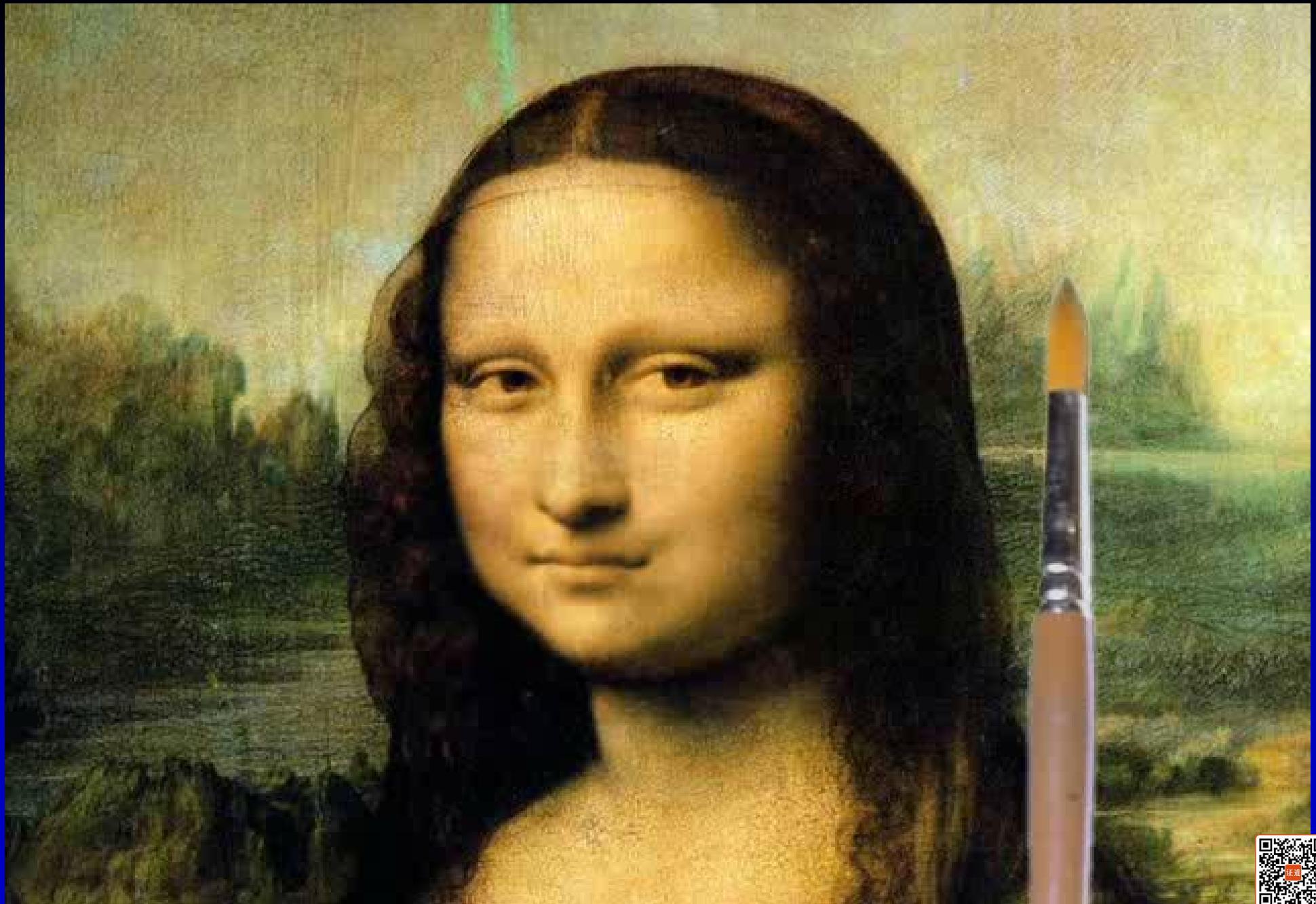
Jose Hidalgo MD

William Simpson PhD

Jellica Markovic, Jeff Weir, Deborah Rozelle, Caren Swift,
Miriam Kissin, Dan Siskind



证道心理

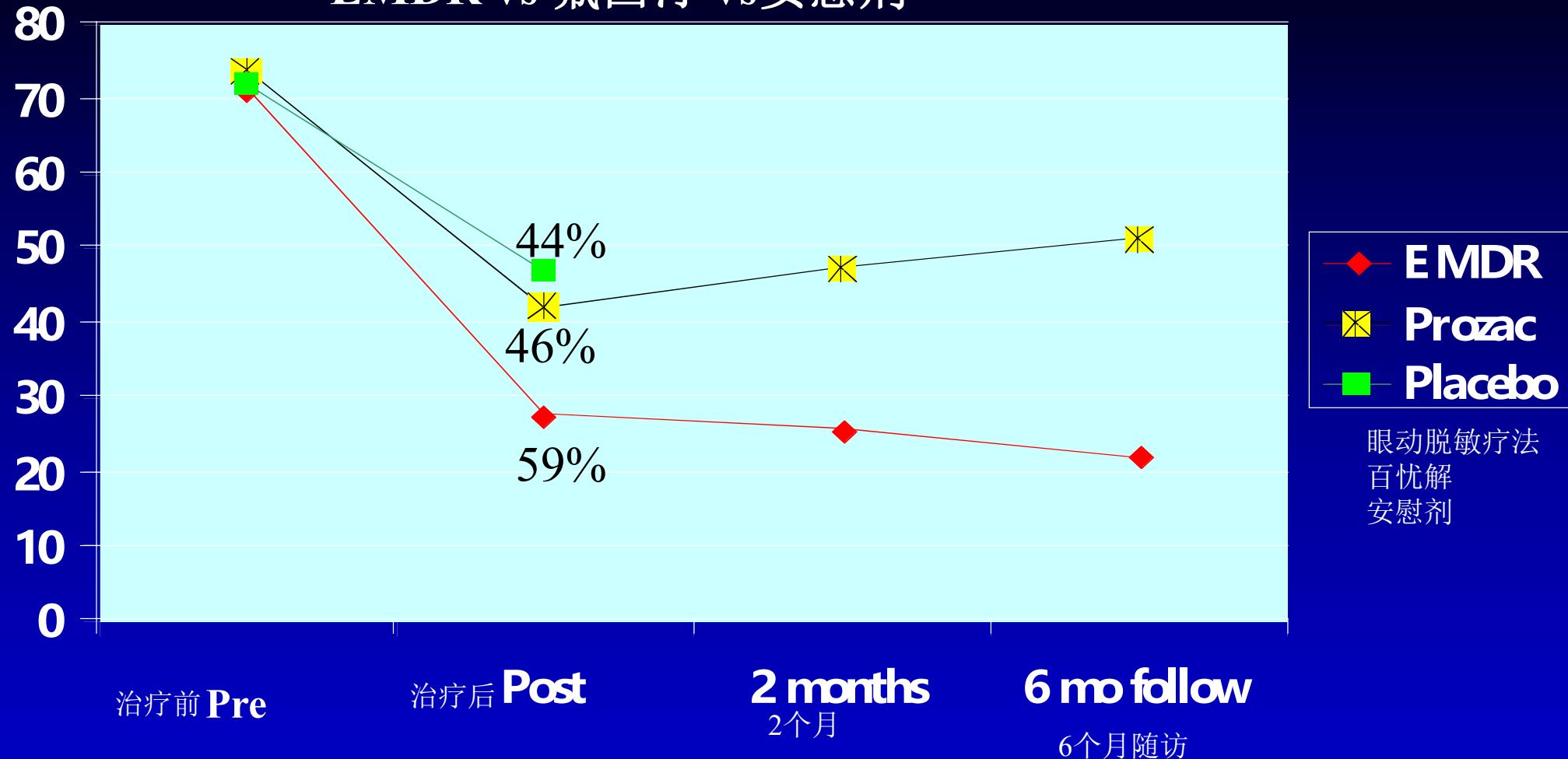


证道

心理

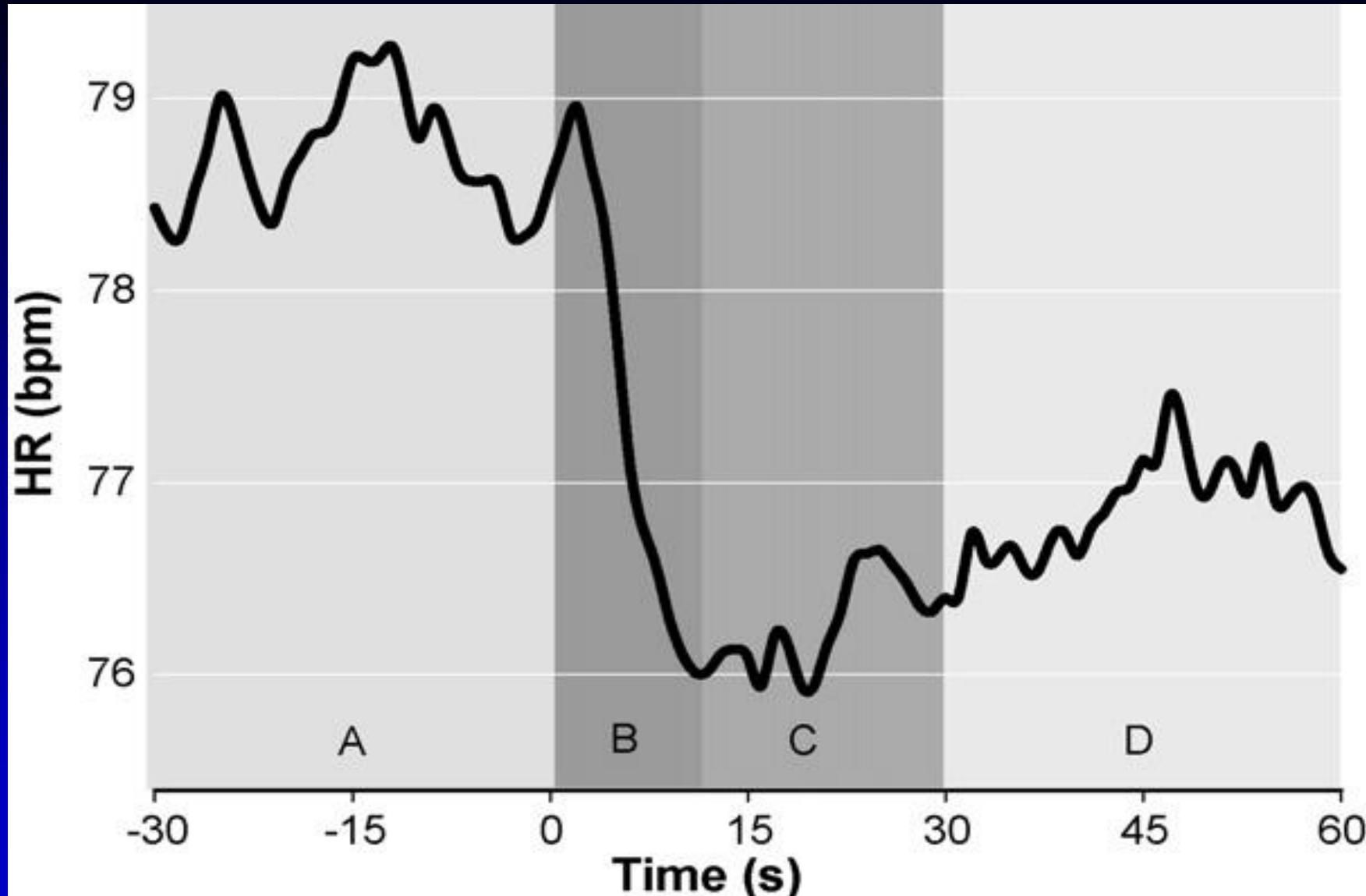
EMDR vs. fluoxetine vs. Placebo

EMDR vs 氟西汀 vs 安慰剂



CAPS Scores pre-treatment, Post treatment (12 wks), 2 month Follow- up and 6 month follow up 前后（12周），2个月和6个月随访





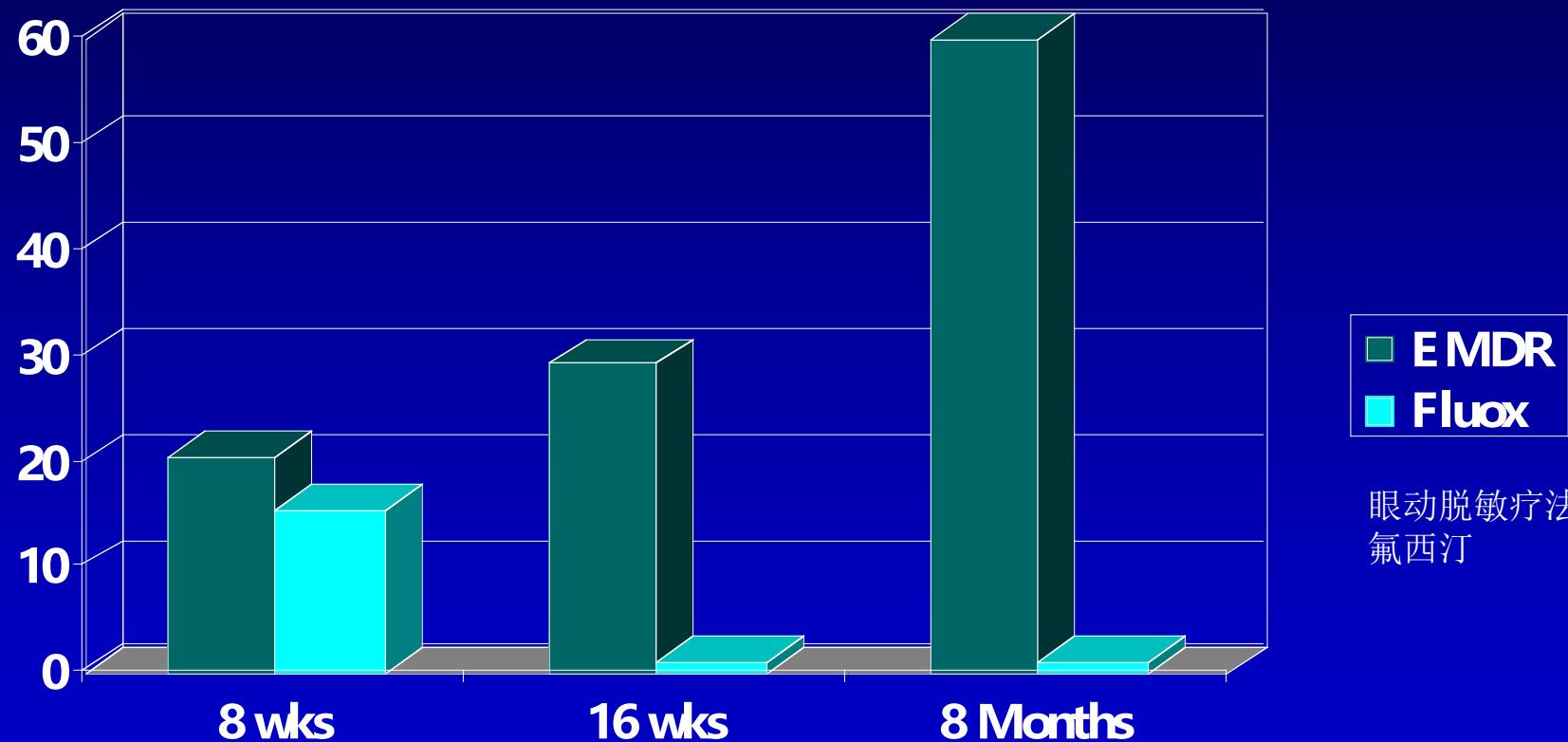
Autonomic arousal following onset of eye movements, Sack et al, 2008
眼动开始后的自主唤起



证道心理

Good end-state function: CAPS score below 20

良好的结束时功能状态：CAPS得分20以下

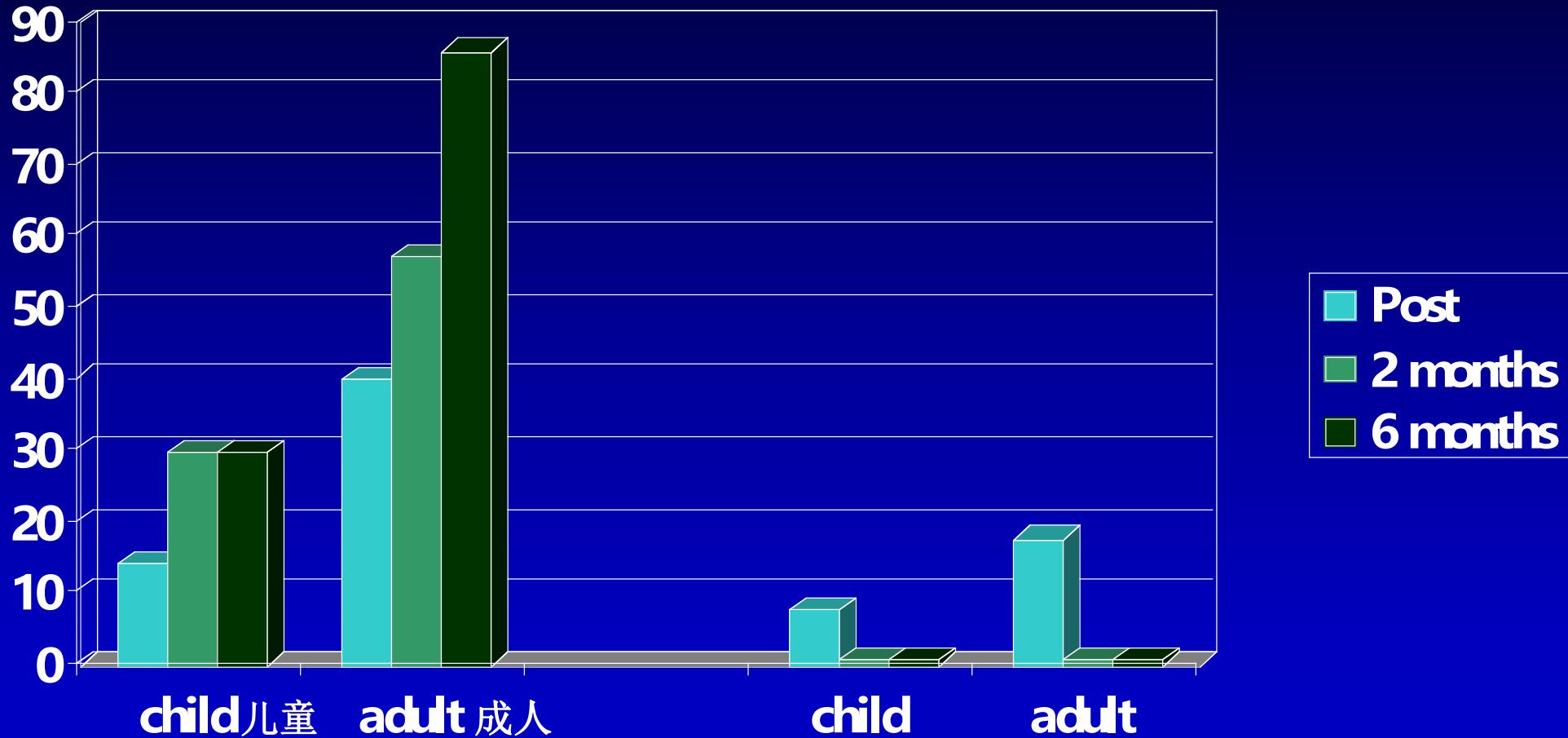


眼动脱敏疗法
氟西汀



Positive end-state function(CAPS < 20)

积极的结束时功能状态 (CAPS<20)



EMDR 眼动脱敏

Fluoxetine 氟西汀



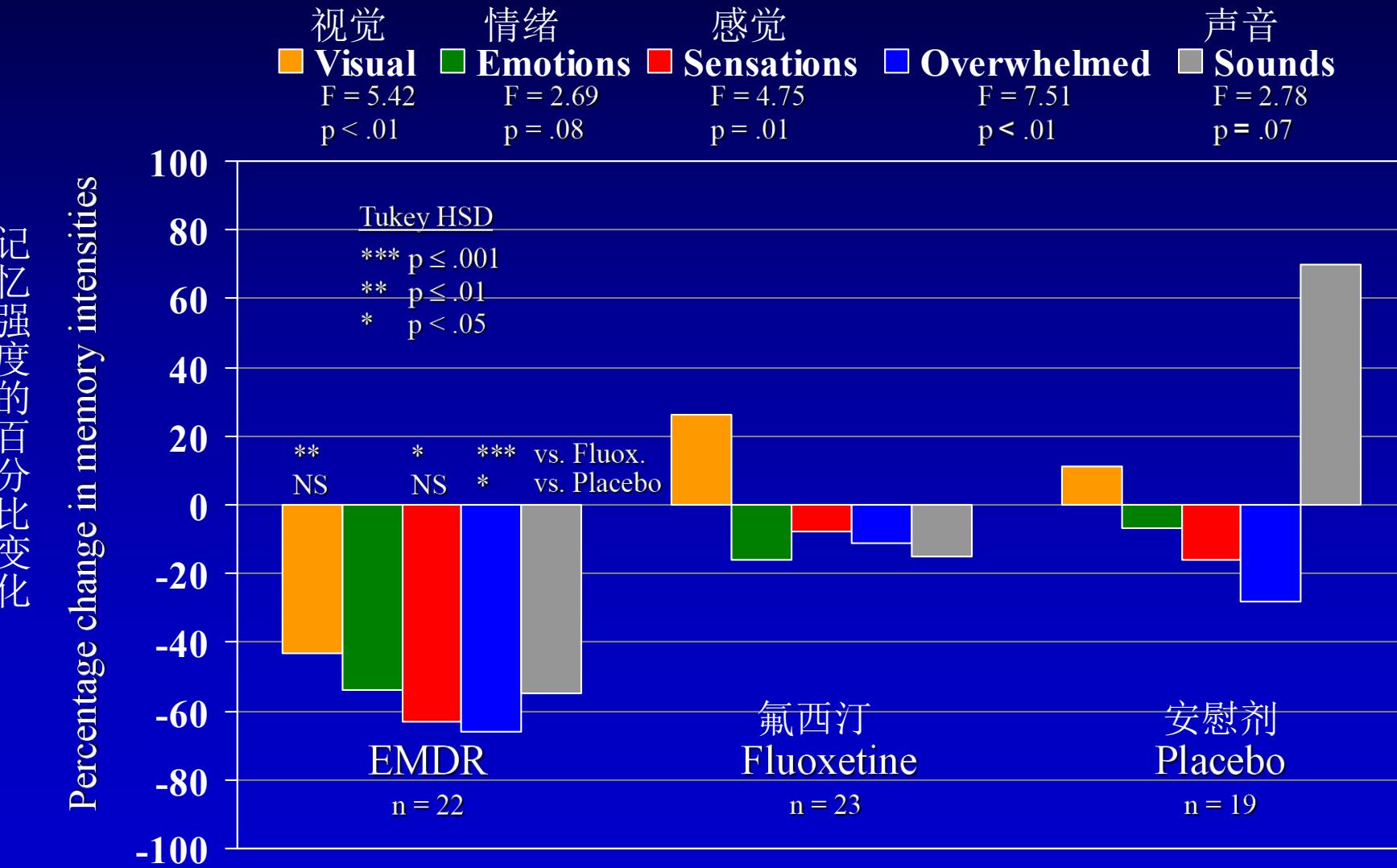
证道心理

So, how does EMDR work?
那么，EMDR是如何起效的？



证道心理

Pre/Post Changes by Treatment: 治疗前后改变 Script-Driven Trauma Memories (Averages of Both) 脚本驱动的创伤记忆 (平均值)



证道心理精彩课程

扫描二维码了解详情



精神分析核心概念 与临床技术 18 讲

Vamik Volkan

五次获诺贝尔和平奖提名

美国精神分析学院前主席

弗洛伊德奖和西格尼奖双料获得者

连续15年荣膺美国最佳医生



关系创伤的动力学治疗 全过程及临床操作步骤

Janet Bachant

创伤治疗顶尖专家

纽约精神分析中心督导师

纽约灾难咨询联合会主席



复杂发展创伤的形成 及如何治疗

Janet Bachant

创伤治疗顶尖专家

纽约精神分析中心督导师

纽约灾难咨询联合会主席



识别二维码查看课程列表

精神分析 · 创伤治疗 儿童青少年治疗

三大系列，正在热招！