# Trauma, PTSD and Meditation



Jeong-ho Chae

#### **Trauma**

- Τραυμα
  - Piercing

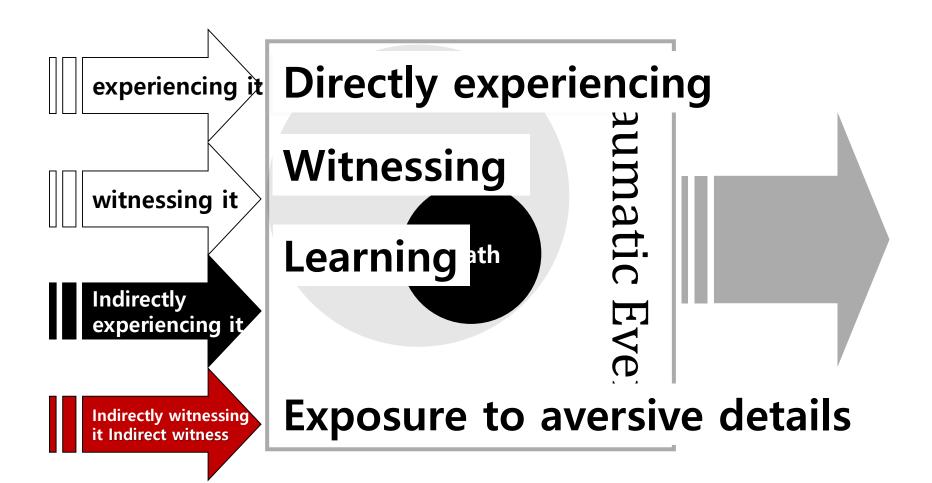


#### Response to Trauma

- PTSD; posttraumatic stress disorder
- Self-blame
- Disruption of one's basic belief
- Emotional distress: depression, anxiety disorder
- Addiction to materials
- Impulsive behavior
- Somatic symptoms
- Excessive compensation
- Death anxiety
- Obsession
- Self-injury
- Addiction, self-destructive behavior
- Inability to express one's own feeling
- Change in personality
- ....

#### PTSD Diagnosis

- DSM-5: Traumatic Event -



### Psychological Trauma

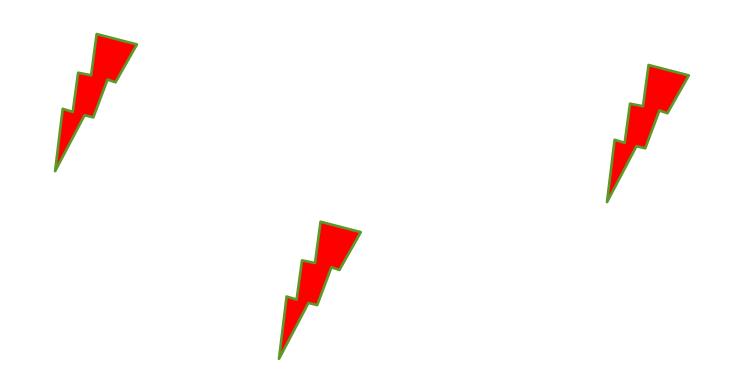
- A person's personal and special experience to an event or a situation that overwhelms an individual's ability to integrate one's own emotional experience or feels that their life or existence or normal mentality is threatened. (Pearlman, 1995)
- Experience that overwhelms an individual's ability to make psychological and biological response (van der Kolk 1987)

#### Trauma

- Stress
- Trauma
- Multitrauma
- Childhood trauma
- Continuous trauma
- PTSD
- Complex PTSD

#### Stress

#### Trauma



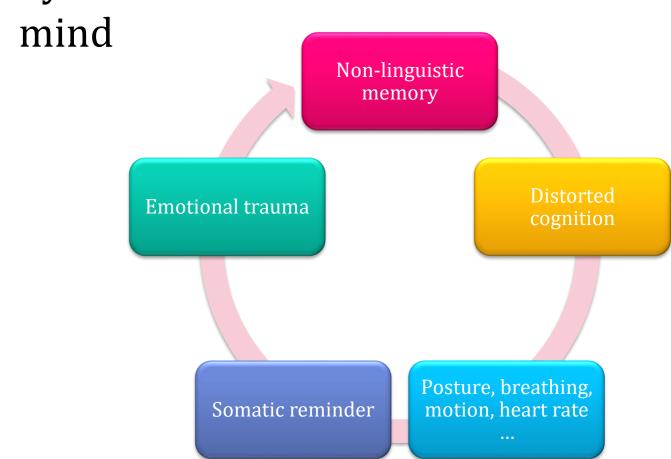
#### Failure to Integrate

- Elements of trauma fail to be integrated into the unified whole or self-sense
- Avoidance: paralysis, cue avoidance
- Invasive: flashback, dream, thought, somatic symptoms
- Dissociation
- Piecemeal of memories that fail to be integrated
- Psychology: Overwhelming emotion, disrupted concentration, memory loss, change in one's belief system
- Somatic: body, motions, five senses, distorted sense, arousal regulation malfunction, deficiency, pain, motor disorder, somatic sensation piecemeal reexperienced



#### **Traumatized**

Cyclical interaction between the body and



# Changes in belief and attitude following trauma

- There is no safe place
- I don't deserve to be happy
- I cannot trust anybody
- I am as good as dead
- Nobody understands me
- I cannot get over the stress
- They think that I am not strong enough
- It is all my fault
- I am ruined
- There is no way to get back to a normal life
- I can approach nobody
- I will never find somebody to love again

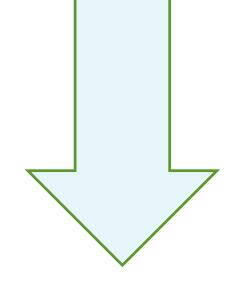
## Meditation/Mindfulness helps to heal from trauma

#### **Enhances**

- Emotional endurance and resilience
- Relaxation
- Attention control
- Self-compassion
- Expansion of the present moment
- Balanced perspective
- Recognition of the world and oneself

#### Reduces

- Automatic reaction
- Avoidance
- Self-judgement



#### Mindfulness

- Intention and ability to cultivate and maintain awareness and openness when it comes to their inner mental state, thoughts, feelings, memories, sensations and instant experiences as they arise when they are stimulated by external elements
- In an attitude that is non-judgmental and kind.

#### Benefits of Mindfulness

- Reduction in avoidance
- Exposure in different format
- Dealing with hypersensitivity
- Decentering from negative cognition/emotions
- Creation/Re-creation of safe environment for acceptance
- Reduction in rumination
- (Transcendental experience)





Basic instability!

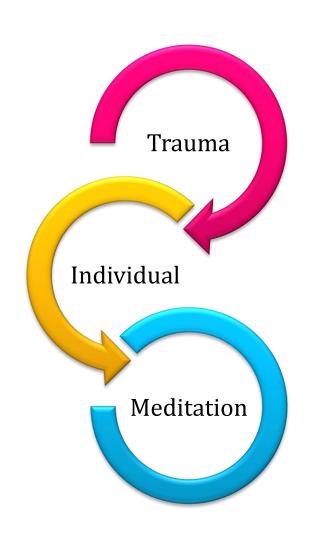


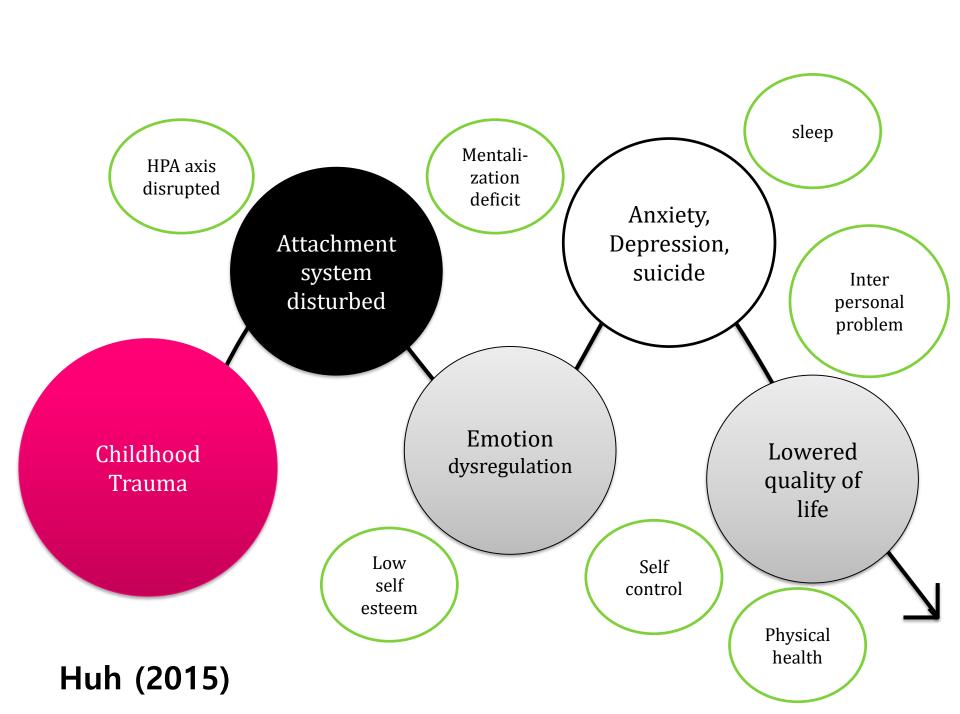
#### Burn

- Exposed to the sun Sunburn
- Clothes that come in contact with skin
- Caressing
- Attitude
- Mood



### Mutual Diversity





#### Treatment Process of Trauma / PTSD

Stabilization (safety)

Secure the affect
regulation, self
soothing and resources
Self-regulation

Memory Processing
PE, CPT, EMDR
exposure/narrative

Reconnection (Rehabilitation) Interpersonal relations, Skill training

#### Treatment Process of Trauma / PTSD

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#### Anchoring to the present moment



- What is here at this moment?
- A boat in the river/ conveyor belt/train of thought
- Breathing in the moment
- Walking in mindfulness
  - Magic walking
- Somatic mindfulness (body scan)
- Finding emotion in the body
- Where is my mind at this moment?

#### Self-compassion

- My friend, breathing
- Enhancing self-compassion
- Normalizing symptoms
- Kind witness
- Self-compassion on self-criticism
- Noticing the point of success

#### 3 Elements of Self-compassion







Pain is part of life

Be kind to oneself

#### Self-compassion Meditation

- Be safe
- Live safe
- Be free from risk
- Love and accept yourself
- Be free from pain
- Be happy
- Be peaceful
- Be joyful

- Be healthy
- Be free
- Be peaceful
- Be awakened as a whole
- Be kind
- Be wise
- Be skillful
- Be brave
- ...

## "Mindfulness is not emptying but filling your mind with the present"

Turow RG

#### Treatment Process of Trauma / PTSD

Stabilization (safety)

Secure the affect regulation, self soothing and resources

Self-regulation

Memory
Processing
PE, CPT, EMDR
exposure/narrativ
e

Reconnection (Rehabilitation)

Interpersonal relations, Skill training

#### Invasive

- Grounding
  - Observe your hand, foot and an object
- Switching channels
- Remembering with self-compassion and care
- Surfing the waves
- Mind image IRT for nightmare

### Hyper-Arousal

- Abdominal breathing
- Relaxation training
- Normalization/neutralization
- Observing the river of fear
- Self-compassion on anxiety

#### Avoidance

- Notice the behavior of avoidance
- Self-compassion on avoidance
- New breathing/new opportunity: being at the present
- Gradual exposure and mindfulness
- Success at exposing it

#### Sense of Shame / Guilt

- Labeling & noting
- Noticing the process of adding meaning to the event
- Noticing additional factors
- Normalizing meanings attached
- Re-evaluating meanings attached
- Self-compassion on meanings attached

#### Paralysis

- Daily living
  - More in contact with the somatic senses
- Curious detective
- Finding the words of emotion
- Explore paralysis with curiosity and compassion

#### Dissociation

- Grounding
- Observing the pattern in triggers
- Explore the moment of magic
- Tolerate inconvenience
- Stay at the present moment

#### Treatment Process of Trauma / PTSD

Stabilization (safety)

Secure the affect
regulation, self
soothing and
resources

Self-regulation

Memory Processing PE, CPT, EMDR exposure/narrative

Reconnection (Rehabilitation)

Interpersonal relations, Skill training

#### Connection

- Notice contributions that others make
- Self-compassion for other beings
- Generosity
- Seek help
- Participate
- Self-compassion

# Brain imaging



Available online at www.sciencedirect.com



Psychiatry Research: Neuroimaging 131 (2004) 79-89

PSYCHIATRY RESEARCH NEUROIMAGING

www.elsevier.com/locate/psychresns

# Dimensional complexity of the EEG in patients with posttraumatic stress disorder

Jeong-Ho Chae<sup>a</sup>, Jaeseung Jeong<sup>b,c,\*</sup>, Bradley S. Peterson<sup>c</sup>, Dai-Jin Kim<sup>a</sup>, Won-Myong Bahk<sup>a</sup>, Tae-Youn Jun<sup>a</sup>, Soo-Yong Kim<sup>d</sup>, Kwang-Soo Kim<sup>a</sup>

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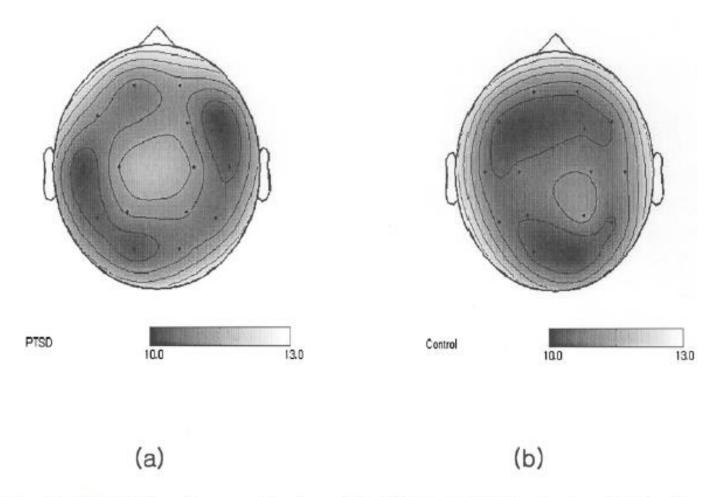


Fig. 2. Graphical distribution of average  $D_2$  values of the EEG in (a) PTSD patients and (b) healthy controls.





#### Alterations in cerebral perfusion in posttraumatic stress disorder patients without re-exposure to accident-related stimuli

Yong An Chung <sup>a</sup>, Sung Hoon Kim <sup>a</sup>, Soo Kyo Chung <sup>a</sup>, Jeong-Ho Chae <sup>b</sup>, Dong Won Yang <sup>c</sup>, Hyung Sun Sohn <sup>a</sup>, Jaeseung Jeong <sup>d,e,\*</sup>

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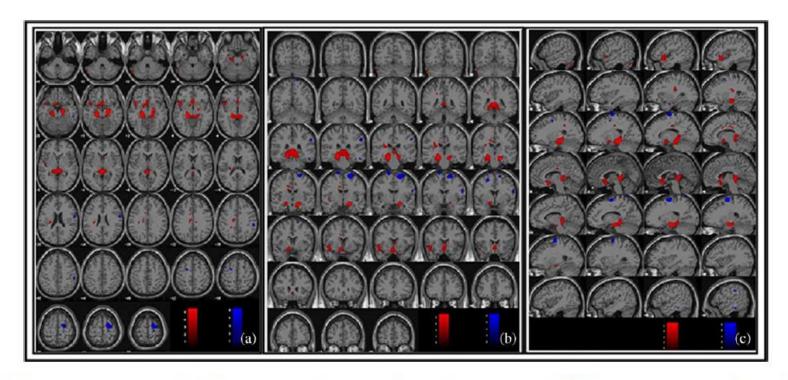
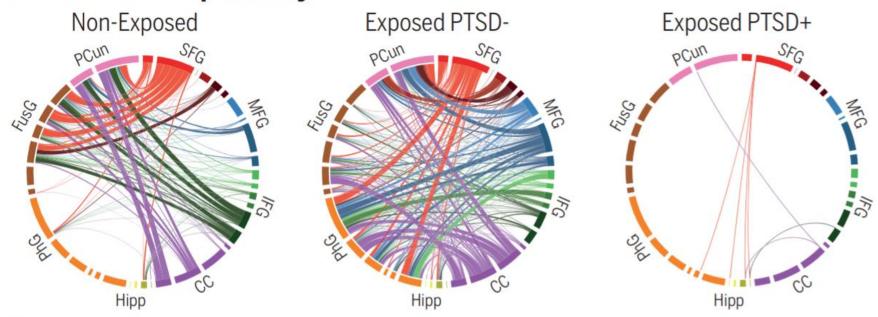


Fig. 2. (a) Axial, (b) coronal, and (c) sagittal SPM images on template T1 weighted high-resolution brain MRI. Brain regions of increased (red) and decreased (blue) rCBF levels in PTSD patients (n = 23) compared with normal controls (n = 64) are shown.

#### **C** Functional dependency



#### Science

#### Resilience after trauma: The role of memory suppression

Alison Mary, Jacques Dayan, Giovanni Leone, Charlotte Postel, Florence Fraisse, Carine Malle, Thomas Vallée, Carine Klein-Peschanski, Fausto Viader, Vincent de la Sayette, Denis Peschanski, Francis Eustache and Pierre Gagnepain

## What is EMDR?

EMDR stands for Eye Movement Desensitization & Reprocessing. It is a therapy proven to help reduce symptoms related to:

**DEPRESSION** 

TRAUMA & PTSD

**PHOBIAS** 

**ADDICTIONS** 

**ANXIETY** 

OTHER EMOTIONAL PROBLEMS

### How does EMDR work?

EMDR has a direct effect on the way the brain processes information, releasing emotional experiences that are trapped in the nervous system.

Your therapist helps you recall an upsetting memory, thought, or feeling.

- Then, your therapist activates both sides of your brain by using Dual

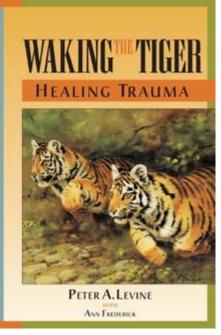
  Activation Stimulation (DAS), which is something you see, hear, or feel on
  both sides of your body. It's like watching a ping-pong game.
- The upsetting memories are REPROCESSED by the brain, resulting in. painful memories and thoughts being replaced by more RESOLVED,

# **Somatic Experiencing**

Peter Levine (1997)







# **September 11, 2001**



- Death toll: 2996?
- No of people

**injured: 6291?** 





감각운동 심리치료의 이론과 실제

힐링 트라우마, 내 안에 잡든 호랑이를 깨워라

트라우마 치유하기

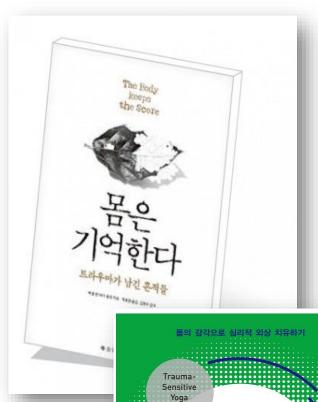
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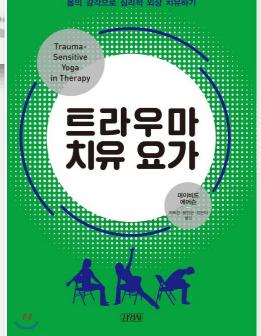


Healing Trauma

트라우마 치유의 일대 전환점이 된 책! 30여 개국에서 출간된 글로벌 베스트셀러!





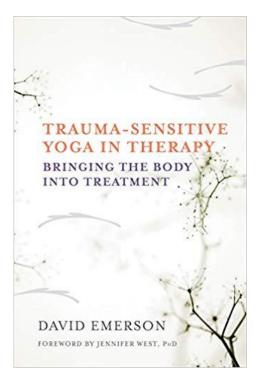


# Trauma Sensitive Yoga

- David Emerson (2003)
- Brookline Trauma Center, MA

- Inner experience
- No instructions for breathing
- Being aware
- With an invitation

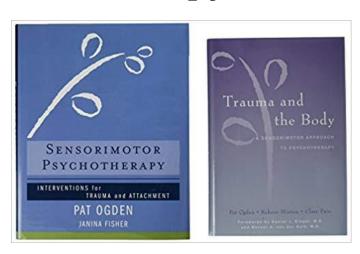




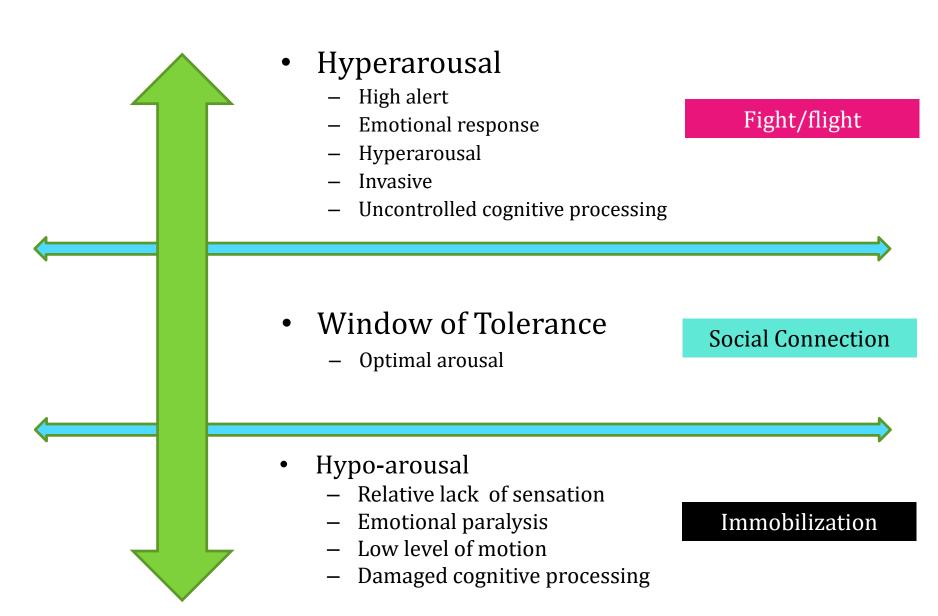
# Sensorimotor psychotherapy

- Pat Ogden (2006)
- Our body maintains and expresses our emotions
- How to use our body to mediate pain
- Neuroscience, cognitive and somatic approach, attachment theory Hakomi therapy





### Window of Tolerance



# Orienting

- Orienting reflex
  - Immediate response to a minor change in its environment (Pavlov)
  - Non-adaptive orienting by Trauma
    - 1. Excessively sensitive to small stimuli internal or external
    - 2. Hyper-orienting in relation to the initial trauma
    - 3. Low level of capability to identify and evaluate context before and after the stimuli

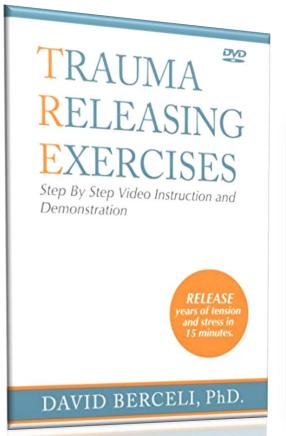
#### Mindfulness-Based Self-Observation

- Body tracking beyond the orienting, thinking and stories
- Statements
  - It seems  $\sim$  . I started to  $\sim$  .
- Questions leading them to experience the present
  - What do you feel in your body now?
  - Where do you precisely feel the tension?
  - How big is the sensation? Which ball represents it in its size?
  - Do you feel something in your leg whenever you talk about the event?
  - How does your body respond when you are upset?

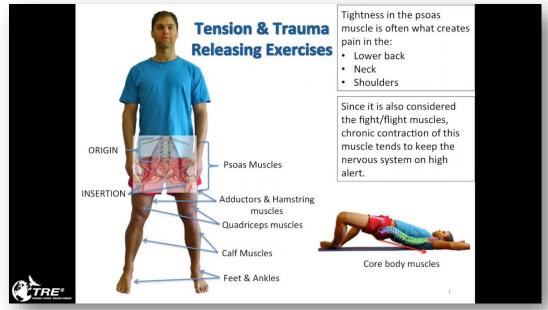
- Let the difficult thought, feeling, (somatic sensation), (movement) there be and kindly bring them to your consciousness and then welcome them rather than trying to resolve (Segal et al.)
- Position as an observer
  - Own the experience itself rather than allowing it to exist as a trauma
- Consistently explore
- Stabilization approach is the basis!!!!

#### **Trauma Releasing Exercise (TRE)**

David Berceli (2007)







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#### A Systematic Review of Randomized Trials of Mind-Body Interventions for PTSD

**Mindfulness** is frequently defined as a focused attention on present experiences without judgment (Kabat-Zinn, 1994). Interventions encouraging mindfulness and meditation have been considered the "third wave of behavior therapy" and current research examines the roles state and trait mindfulness may play in the generation and maintenance of symptoms of PTSD (Vujanovic, Youngwirth, Johnson & Zvolensky, 2009; Walser & Westrup, 2007).

**Relaxation** therapy includes a variety of techniques including biofeedback training, imagery and visualization, and progressive muscle relaxation (NCCIH, 2016). Relaxation therapy has been well utilized in addressing the arousal symptoms of PTSD for decades and has been included as a key component of several empirically supported treatments for PTSD (Meichenbaum, 1975; Foa & Rothbaum, 2001). Use of relaxation as a stand-alone treatment for PTSD is somewhat rare, however, and relaxation has not received much attention in the clinical research on PTSD.

Yoga is an integrative practice consisting of physical postures, breathing, and meditation. Yoga has been increasingly used by the public and in clinical settings for a variety of conditions and for general wellbeing (NCCIH, 2013). It may be used to increase present-focused attention and awareness, and cultivate mindfulness and acceptance. Additionally, the breath work component can be used to manage the hyperarousal symptoms of PTSD by improving the regulation of the autonomic nervous system (Moore, Brown, Money & Bates, 2011).

**Tai Chi** is a form of martial arts involving the practice of various motion routines and incorporates mindfulness, breathing, active relaxation, and slow movement (NCCIH, 2015). The characteristic slow movement makes it accessible for individuals of all physical health and fitness levels. In addition to physical improvements in flexibility, strength and pain management, Tai Chi has been shown to reduce tension, depression, and anger (Jin, 1989; Wang et al., 2010). Although, Tai Chi has been associated with physiological and psychological benefits, it is often overlooked as an intervention for psychological conditions including PTSD.

### Posttraumatic Stress Disorder Prevention and Treatment Guidelines

#### Methodology and Recommendations



#### Intervention with Emerging Evidence

- **8. Mind Body Skills -** Mind body skills include various techniques, including mindfulness, meditation, guided imagery, expressive drawing and writing, self-hypnosis and biofeedback.
- **16. Somatic Experiencing -** This involves a focus on perceived body sensations and to learn how to regulate these with the aim of resolving symptoms.
- **20. Yoga -** Yoga is an integrative practice of body postures, breathing and meditation. It aims to increase present-focused attention and awareness and to facilitate mindfulness and acceptance.

# Common Factors in Somatic Therapies of Trauma

- Grounding
- Cultivating Somatic Awareness
- Staying Descriptive
- Deepening Awareness
- Resourcing
- Titration: discharge the tension, "pendulating" or oscillating
- **Sequencing**: somatic tension releases
- Movement and Process: re-engages
- Boundary Development: clear boundaries
- **Self-Regulation(regulation):** mindfully staying connected to the body in the midst of big emotions or sensations.

# 마음에서 빠져나와 삶 속으로 들어가라 새로운 수용전념치료

# "Get out of your mind and live your

- Recover one's own health
- Follow others and live the natural way body"
- Feldenkrais Method

Tai Chi

- "Rediscover innate capacity for graceful, efficient movement" & "to enhance functioning in other aspects of life".
- Alexander technique
  - "poor habits in posture and movement damaged spatial selfawareness as well as health"
- Ancient exercise
  - Ancient exercise as means to resolve the gap between the soma and body and mediate them ", "Reconciliation of the body and mind, life and nature"

# Present Experience

Cognition: Thought, interpretation, meaning, belief Emotion: Emotion, mood, tone, nuance Five senses: Sight, Sound, Smell, Taste, and Touch Movement: motions big and small Internal somatic sensation: Internal state feedback

## **Somatic Resources**

- Physical behavior and capabilities that help self-regulation and offer the sense of well-being, competence and confidence.
- Arising from physical experience, they impact the mental health.

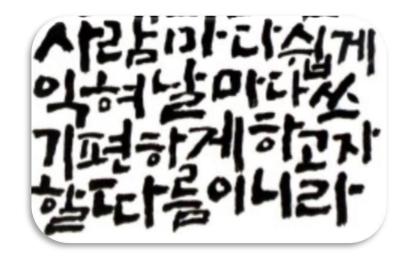


- ◆ Mutual regulation
  - ◆ Proximity, precaution, defense, reaching out, grabbing, releasing
- ♦ Self-regulation
  - ◆ Awareness, grounding, arrangement, embracing, balancing

Movement for the Right Mind

# 바른 마음을 위한 움직임

# Body Mind 動



#### Movement for the Right Mind

# 바른 마음을 위한 움직임

#### 정신건강을 위한 소마틱 운동 명상 프로그램 워크숍

A Workshop for the Somatic Integrated Movement Meditation for Mental Health



채정호 가톨릭 의과대학 정신건강의학과 교수



**김주환** 연세대 언론홍보영상학부 교수



**허휴정** 가톨릭 의과대학 정신건강의학과 교수



김경희 알렉산더테크닉 국제교사과정 디렉터



**강수원** 밝은빛 태극권 협회 부원장



한 얼 소마앤바디 대표



**김주현** 소마앤바디 부대표

#### 소매틱스 기반 명상을 이용한 정신심리치료적 개입

<sup>1</sup>가톨릭대학교 의생명산업연구원 정서연구실, <sup>2</sup>가톨릭대학교 의과대학 정신과학교실

심현희<sup>1</sup>, 채정호<sup>1,2</sup>

#### Psychotherapeutic intervention using somatics based meditation

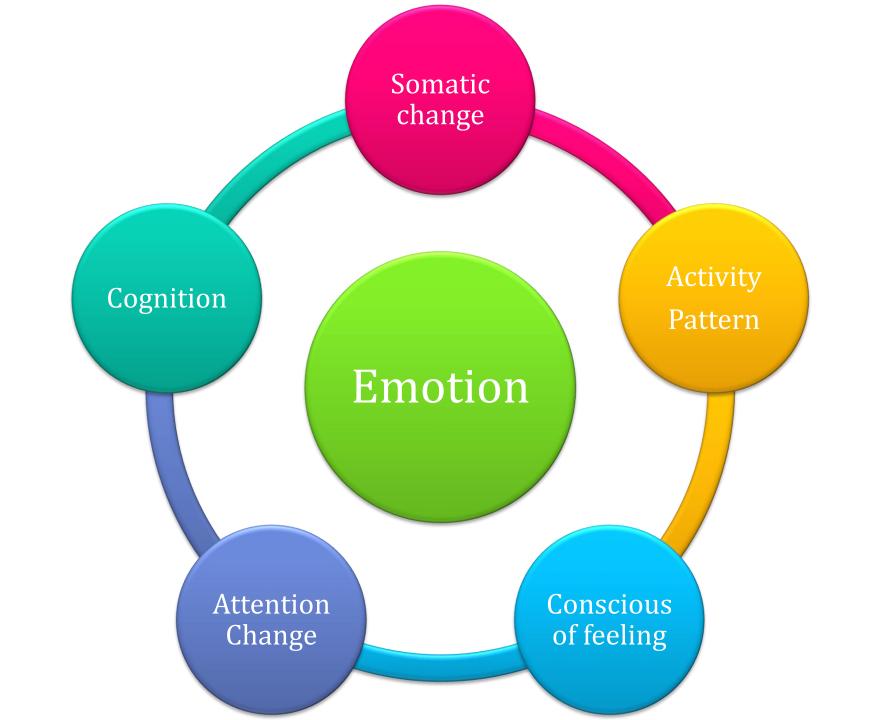
Hyeonhee Sim<sup>1</sup> and Jeong-Ho Chae<sup>1,2</sup>

<sup>1</sup>The Catholic Emotion Research Laboratory, Catholic Biomedical Industrial Institute, The Catholic University of Korea, Seoul, Korea

<sup>2</sup>Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, Korea

### **BAMAUM**

- Enhance the capacity to regulate emotions by training proprioception and interoception
- Reduce the negative internal communication through somatic training
- EMDR
- Pendulum movement rhythm effect
- Reestablish FAP
- Stimulate the capacity to recognize the body and emotion by reestablishing the relationship between the movement and intention



- What are you doing now?
- How do we move to change what?

- Human is the only being that internally recognizes its physical movement.
  - Thomas Hanna -

# 1. Awareness: Focused attention and consciousness

- Focused attention to your movement increases neuroplastic changes
- The more you are aware of your body, the better you notice
  your senses. Higher sensory recognition of your muscles
  increases your control over the voluntary movement.
  When you contract or relax your muscles voluntarily, you can
  feel them much better.



Feel and move better and more

#### 2. Detailed and elaborate movement

• Paying attention to the highly coordinated and differentiated movement occupies bigger space on the brain map, which gets refined further.

The smaller the stimulus, the better one can feel the change



Develop more elaborate movement and somatic sensation

#### 3. Slower movement

- Tai Chi movement, Alexander Technique's means where-by.
- Delay between the thought and behavior is the starting point of the realization. Alexander Technique's inhibition.
- The slower the movement, the more detailed observation and map differentiation occur, leading to more changes.



Entails closer observation and changes

#### 4. In a relaxed state

- Tension prevents arising of awareness.
- Muscle relaxation affects mental state, and vice versa.
- Tension in part of the body leads to tension as a whole.
   Relaxation in part of the body leads to relaxation as a whole.



You will have enhanced awareness and more peaceful mind.

## 5. Permission and Joy

New attempts are required to grow out of old habits.

It may make you feel that something is wrong.

• It is OK to make mistakes. There is nothing wrong.

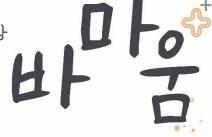
Trial and error create a new circuit in your brain.

• When the senses bring weak pleasure, clarity gets lost.



Safety and pleasure bring about changes (true learning).

바른 마음을 위한 소마틱 펜듈러 움직임 명상



소마틱 펜듈러 움직임 명상은 고대진자운동과 소마틱스(펠트크라이스, 알렉산더테크닉) 그리고 태극권 요소가 결합된 형태로움직임 감각에 집중토록함으로써 만성적 불안 증세를 완화하는데 큰 도움을 줍니다.



간 :: 12월 05일부터 매주 목요일 총 4주 과정 (오후 2시 ~ 3시 30분)

※ 신청자 인원이 많을 경우, 뒷타임(90분)이 개설됩니다.

소 :: 서울성모병원 본관 6층 604호, 608호

의 :: 정신건강의학과 채정호 교수 (외래 02-2258-1260)



12/5 (목) 움직임을 통한 무게감 명상. 마음 보살피고 위로하기.

604호

2회기 12/12 (목) 움직임을 통한 길이감 명상, 응어리진 감정 풀어내기. 608호

608호

3회기 12/19 (목) 움직임을 통한 리듬감 명상. 긴장에서 벗어나 휴식하기.

\* 총 4주간, 앉거나 서서 다양한 소마틱 펜듈러 움직임을 배우게 됩니다. \*

12/26 (목) 움직임을 통한 진동감 명상. 몰입 경험 및 현재에 머물기.





4회기

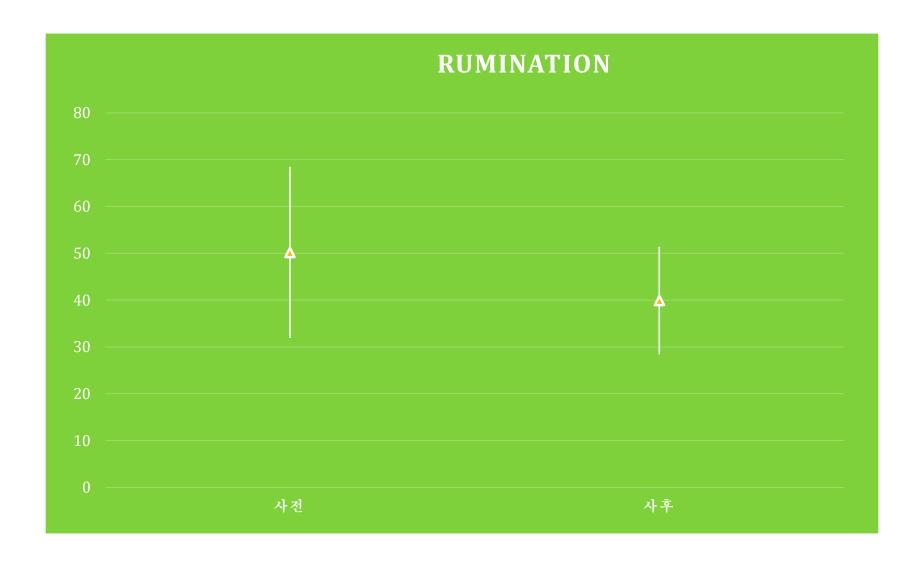




# Increase in Acceptance (P=0.001)



# Decrease in Rumination (P=0.012)



### Feedback Remarks

- "It makes me look back and think. I think I understand what it takes for me to recover peace of mind. It helped me to control myself when I am upset. I hope we have a longer program."
- "I learned what to do when I am in trouble. It was of great help as I learned how to
  focus on breathing and somatic sensations. I applied what I learned when my face is
  blushed or when I feel pain in my heart. I hope the session is longer."
- "I learned how to get away from all the unnecessary thinking. I believe I got better at concentrating by focusing on the present behavior. When I feel blue, I tried to focus on the present behavior, which helped me let go of negative thoughts. I hope that there are more motions that can be applied and used in daily life. The pendulum was quite heavy so it was a bit hard working with it. I think 4-6 times are appropriate."
- "It was good that I had a chance to feel my body. I learned how to observe what the different parts of my body feel in daily life."

## Treatment Process of Trauma / PTSD

Stabilization (safety)

Secure the affect
regulation, self
soothing and resources
Self-regulation

Memory Processing
PE, CPT, EMDR
exposure/narrative

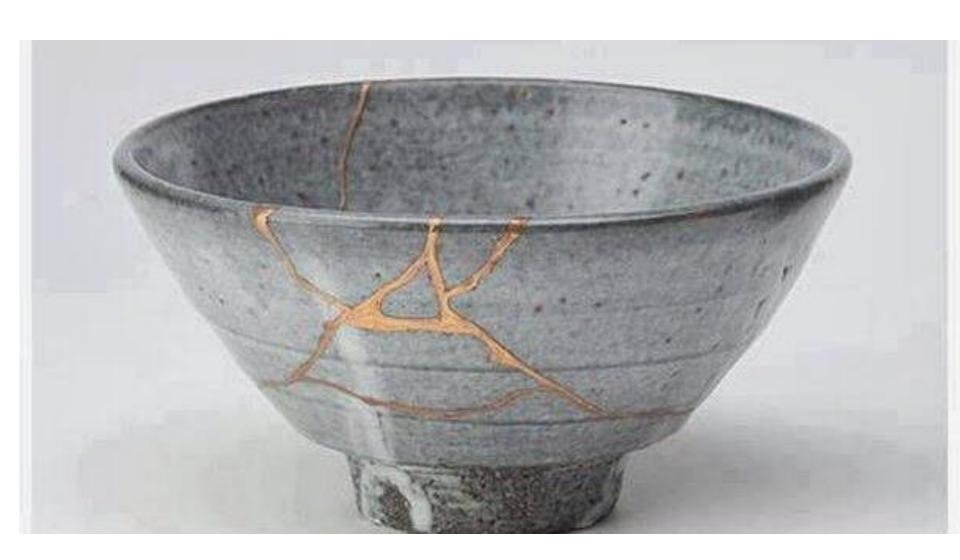
Reconnection
(Rehabilitation)
Interpersonal relations,
Skill training

Safe and reliable relationship for treatment

# Purpose of Trauma Treatment

- Investigate the role of trauma experience in one's life trajectory
- Get the meaning out of such experience
- Lean how to manage and deal with symptoms

# 金繕い (Kintsukuroi = Golden mend)







## 상처에는 깊은 아름다움이 있다. 상처 자체 가 우리 자아의 일부이기 때문이다.



