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Yoga based interventions to reduce symptoms of PTSD



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Objectives

- Indicate 3 risk factors for development of PTSD.
- Describe responses of the body during traumatic event.
- Indicate 3 ways that yoga-based approach can be integrated in occupational therapy treatment.
- Identify evidence for yoga based interventions to reduce symptoms of PTSD
- Indicate 3 ways of performing treatment in a trauma informed manner

Yoga according to Pantajali

8 Limbs of yoga

- Yama/Restraint: Actions best avoided
- Niyama/Observance: Positive actions to cultivate
- ***Asana/Posture: Releasing tensions from the body***
- ***Pranayama/Breath Regulation: Harmonizing body, mind, and breath***
- ***Pratyahara/Introversion: Withdrawing attention from external distractions***
- ***Dharana/Concentration: Focusing the mind on a single point***
- ***Dhyana/Meditation: Accessing a state of flow***
- Samadhi/Oneness: Effortless, integrated being

(Kripalu, 2013)

Yoga

Linda DP's Definitions

Practice which includes meditation, breathing exercises and physical postures to create balance in your mind, body and spirit.

It is a technique that helps you to regulate your CNS.

A practice that helps you to participate in life more fully.

Pantajali

Yoga is the stilling of the thought waves of the mind

Occupational Therapy Framework

Preparatory method: Emotional regulation, decreased stress, calm to CNS. Method for preparation for work, rest and sleep

As an occupation-based treatment: Yoga based intervention is the occupation of rest and relaxation

(American Occupational Therapy Association, 2008)

Historical

- DSM-III, 1980s: Initial description as PTSD.
- Previous descriptions: Shell shock syndrome, irritable heart, soldiers heart, combat exhaustion, stress response syndrome.
- OT's influence post wars: Use of activity and reengagement in life to recover from trauma.
- Recent research and interest in mind body treatments for PTSD.

DSM-5: PTSD

DSM- 5: PTSD

Criterion A: Stressor

Criterion B: Intrusive symptoms

Criterion C: Avoidance

Criterion D: Negative alterations in cognitions and mood

Criterion E: Alterations in arousal and reactivity

DSM V: (American Psychiatric Association, 2013)

Risk Factors

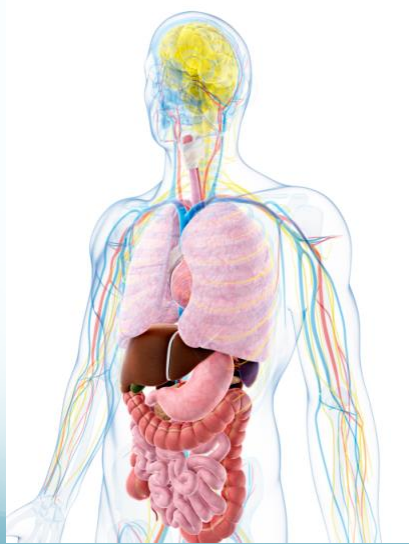
Environmental factors: Childhood trauma, head injury
mental illness. (National Institute of Mental Health)

(ACE Study) Childhood abuse/trauma &
Exposure to domestic violence has cumulative effect.
Higher risk of alcohol/drug abuse.

Exposure to multiple traumatic events
(Breslau, 1999)



Physiological and Neural changes



Fight or Flight

- Sensory>Amygdala>Hypothalamus
- Sympathetic system activation >Adrenals
- Adrenaline (epinephrine) release
- Physiological changes: Blood pressure, sharper sensory system.
- HPA axis: **H**ypothalamus-**P**ituitary-**A**drenal glands
- Continued danger>>Released cortisol

(Harvard Health Publications, 2013)

Fight or Flight response

- Shut down non essential organs
- Amygdala driven: Milliseconds
- Biochemicals flood the system
- Cortisol
- Flee attacker Or fight



(Harvard Health Publications, 2013)

Freeze Response

- Shut down-Dissociate-Protect
- Language centers impaired
- Tonic Immobility



(NurrieSterns, 2013; Levine, 1997;
Emerson, et. al. 2011)

Parasympathetic Response

The Relaxation Response: Physical state of deep rest that changes the physical and emotional responses to stress.

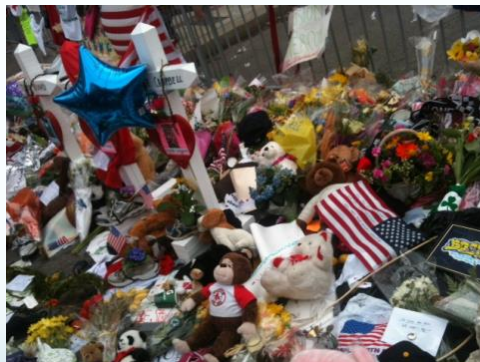
Yoga is one method of inducing relaxation response and decreased arousal of the sympathetic nervous system.

(Herbert Benson)



Traumatic Events

- Initial responses: FIGHT > FLIGHT > FREEZE
- Release response
- Return to safety-life
- Support system
- Emotional-Spiritual
- Healing



Brain Changes

When changes in the brain occur, even a stressor that is perceived as controllable will feel inescapable and life threatening. (Maier, 2006)

Amygdala: Over reactive

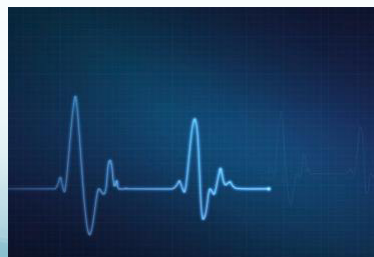
Hypo responsive: Medial prefrontal cortex

Diminished volume: Hippocampus (Shin, 2006)

“We do not see things as they are. We see things as we are.” Anais Nin

Heart Rate Variability

- PTSD: Decreased HRV (Ginsberg, 2010)
- Yoga effect on HRV. Preliminary evidence (Van der kolk, 2006)
- HRV: The beat to beat alterations in heart rate. (Mac Arthur foundation, 2013)



Vagus Nerve

- Regulates major bodily functions: Breathing, heart rate, digestion.
- “Wandering nerve” mobility through the body.
- Marker: Resiliency under stress
- ? Can yoga improve “vagal tone”
- Yogic practices: “ Ujjai” breathing

(Streeter et. al. 2012; Wilson, A. 2012)

Research: PTSD

- Occupational therapy research (Stoller, 2012)
Effects of Sensory Enhanced yoga on symptoms of combat stress in deployed military personnel.
- Van der kolk. (2012): Chronic PTSD, RCT
- Telles (2010) RCT: PTSD post natural disaster
- Descilo et al (2009): Research on yoga breath

Research: Mind-Body

- Lazar et.al, (2012), MBSR: Meditation effect on amygdala
- (Michalsen et. al.2005) (Javnbakht et. al. 2009): Reduced symptoms of anxiety with yoga.
- Herbert Benson: Mind-body for stress related conditions

Trauma Informed OT

- Therapist approach and awareness.
- Environment: Sensory, organized room.
- Orientation: Bathroom, exits, OT procedures.
(Calm the amygdala)
- Explain procedures: Reduce uncertainty.
- Triggers: Props, sensory, emotional & internal triggers,
- Postures: Give options
- Create a sense of predictability, safety.

Yoga Components

- “Centering”
- Meditation
- Breath with movements
- Physical postures
- Final relaxation.

Centering

- Getting settled in the room
- Finding comfort in posture
- Notice breathing
- Notice muscles
- Turning attention from external to internal

Physical Components

- Breathe: “ Inhale – Exhale” coordinated movement
- Start with gentle poses, moving into active postures.
- Minimal or Slow verbal cues.
- Rapid multi steps >> feeds hyper vigilance & stress response.
- Pauses and moments of silence.

Meditation-Breathing

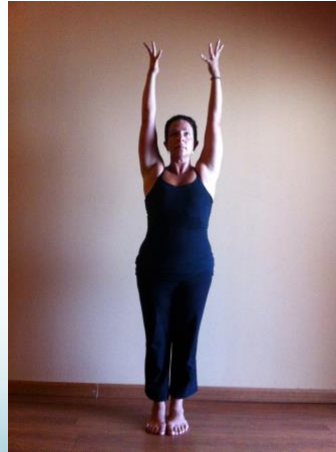
- Start with posture and alignment
- Notice breathing
- Place hands on body to feel breath pattern
- Diaphragmatic breathing

Mountain Pose

Physical Cues:

Feel.... “ Feet, legs,
spine, arms”

Postural Pose: Key
to all other poses.



Tree Pose

Balance Poses:

Visual focus,

Physical, proprioceptive.



Laterality Awareness



Breath with movement



Warrior II

- Active eye gaze
- Physical Stress:
Maintain steady breath
- Focus on posture-
alignment



Savasana: Final Relaxation

Adaptive Options:

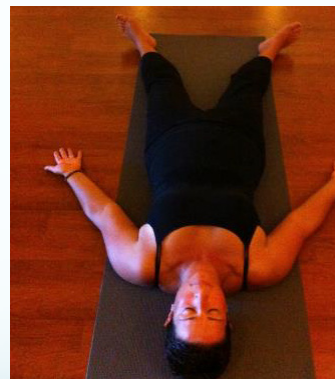
Side lying, knees bent.

Consider:

Guided Relaxation

Props:

Eye pillow, potential trigger.



Educational

- Stress response
- Relaxation response
- Mindfulness (Jon Kabat Zinn)
- Occupational therapy framework: Habits, routine, rituals.
- Identify: Healthy relaxation, exercise and activity.

“Practice-Practice-Practice” Pattabhi Jois

Yoga hope/ TIMBo

- TIMBo: Trauma informed mind body program: structured curriculum that guides the participants through understanding the role of emotions and the way they manifest themselves physiologically in the body, particular in the context of extreme stress or trauma.
- Group discussion followed by gentle yoga class and guided relaxation.

(www.yogahope.org)

How to incorporate yoga within OT

- “Yogic” OT: Self regulate own CNS.
- Mindfulness with “therapeutic exercises”
- Diaphragmatic or 3 part yogic breath
- Coordinate breathing with movements
- Education: Mind body awareness
- Sleep routine, relaxation, guided meditations

Training possibilities

- Practice: yoga, meditation or mind body classes.
- Trauma sensitive yoga trainings.
- Yoga teacher training: 200 hour training.

Possibilities

- Prevention of PTSD: Early identification
- Support: Create support systems
- Co lead classes with other professionals: Social services, pastor
- Occupational therapy growth: Consider non traditional payment sources.

Post Traumatic Growth Syndrome

Create conditions to facilitate *Post Traumatic Growth*

Positive psychological change following highly challenging life circumstance. Not simply return to baseline but an experience of improvement in life that is meaningful.

(Tedeski, 2004)



Conclusion

As occupational therapists we treat people soon after traumatic event. Early identification and treatment can reduce life long impairments in occupations and life. Yoga based methods can be incorporated into occupational therapy treatment. There is preliminary evidence of effect. As occupational therapist treating people following trauma, yoga based approach can be useful within comprehensive holistic approach.

Thank you

Women of Hello House & yogahope

Boston University

Beth Israel Deaconess Medical Center

Cousins Mena for their majestic yoga poses

Kripalu yoga

The Trauma Center

Thank you to all of my teachers, especially to the people I have been fortunate to treat as an OT and teach yoga.

Questions?

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References: See attached document.