Yoga & Mindfulness Based Cognitive Therapy (Y-MBCT) Models for Panic Disorder & PTSD in Adolescents: Overview of Concepts & Efficacy

Basant Pradhan, M.D.,
Assistant Professor of Psychiatry,
Director of Y-MBCT & Trans-cranial Magnetic Stimulation Programs, Cooper University Hospital, Camden, NJ
Professional Disclaimer

Dr. Basant Pradhan was the PI of a collaborative study with the National Institute on Aging (NIA/NIH) on *Efficacy of ketamine and Y-MBCT (TIMBER) in refractory PTSD*. He has no current financial Relationship that would constitute a conflict of interest on this topic.
Objectives:
After this, participants will be able to summarize things below:

✓ Concepts of Yoga & meditation are profoundly distorted, underused & when used, mostly used in piece meal, *not in its entirety*
✓ Meditation is part of Yoga: 2 types: Concentration & Mindfulness
✓ Meditation is a state of mind, not an action
✓ Yoga *in its entirety is three fold*: Life Style, Mind-Body Tools & Meditation
✓ Philosophy, techniques & practice: Use of ALL THREE together Necessary for correct use of Yoga & to improve its scope & utility
✓ The *Five Factor Model* of Human Experience (Buddha, 5th cent BC)

✓ Yoga & Mindfulness Based Cognitive Therapy (Y-MBCT): Has seven symptom specific models: Attempts to bridge these gaps
  • **TIMBER** model (for PTSD) & **DepS Y-MBCT** (for Panic & Depn.)
Pradhan’s Ongoing Work (Demystification & Standardization of Yoga)

✓ Standardized Yoga Meditation Program for Stress Reduction

(SYMPro-SR©): (wellness model, 1993 onwards): piloted on 150 persons

✓ Y-MBCT© (illness models, 1998 onwards): Seven Disorder specific models (>230 patients: 5-80 years age)

- Online Video: http://www.youtube.com/watch?v=pvHDCZ5D7Xk

Developed Standardized & Quantitative Rating Scales:

- Assessment Scale for Mindfulness Interventions (ASMI©, Pradhan, 2012)

- Arousal Response during Trauma Memory Reactivation (ART-MR© Pradhan & Gray, 2013-14): PTSD specific scale for interventions
PROLOGUE:

Distortion at its extremes

Hatha Yoga Vs. Hot Yoga
Why Y-MBCT?: To advocate for use of Yoga in its entirety

This book attempts to bridge the considerable gaps that exist between spiritual philosophies and evidence-based medicine and between the psychotherapeutic models of the East and the West. Based on the insights of both the ancient wisdom and modern medicine, this book presents Yoga science not just as a set of physical exercises or religious rituals but as theories about the mind that have bio-psycho-social implications in relation to health and illness.

Drawing on his years of monastic training and his extensive experiential, clinical, and research knowledge on the utility of Yoga meditation in standardized and evidence-based medicine protocols, the author describes symptom-specific clinical applications of Yoga/meditative techniques using standardized protocols for the various psychiatric and psychosomatic conditions. In addition, he explains the value of these techniques in reducing stress and improving quality of life in healthy populations.

Dr. Pradhan names the proposed integrative model of psychotherapy Yoga and Mindfulness Based Cognitive Therapy (Y-MBCT). Unlike other models, Y-MBCT uses Yoga in its entirety (all eight limbs, including meditation) rather than piecemeal. The standardized and evidence-based format of Yoga meditation described in this book will help all aspiring Yoga practitioners and will hopefully also provide the impetus for multicenter research studies on the value of this ancient wisdom.

Bridges the gap between spiritual philosophies & evidence-based medicine

Describes the scriptural philosophies, techniques & practice of Yoga & meditation

Presents symptom-specific models of Yoga of value in healthcare (both illness & wellness models)
SYMPro-SR (Wellness) & Y-MBCT (Illness) Models

Both models are based on:

- The 4 original schools of Yoga (*Veda, Vedanta, Buddhism & Tantra*)
- Standardized Middle Way Philosophy & Life Style
- Neuro-biologically informed meditation models (bottom up model of standardized meditation protocols, SMPs) &
- Standardized tools of CBT.

- Piloted in > 350 subjects (India & US, as of 2014)
SYMPro-SR & Y-MBCT Models in a Nutshell

SYMPro-SR: Wellness Model
(for me & you: the healthcare providers)

Y-MBCT: Illness Specific Translational Models.
Seven Disorder specific models:

- For Depression, Panic & GAD (DepS Y-MBCT)
- PTSD (TIMBER)
- OCD (MB-ERP)
- Dyslexia, ADHD & Cognitive D/O (MBR-RAM)
- Addiction, anger & impulse control d/o (M-BIST) &
- Conversion & Somatization Disorder (MB-K)

Detailed in Pradhan’s book (2014)

Y-MBCT for Psychotic Disorders (Para Y-MBCT: new book project)
SYMPro-SR & Y-MBCT: FUNDAMENTALS

1. Yoga in its entirety is *three-fold*: Life style, Mind-Body Tools, Using Meditation in Daily Life

2. Philosophy, Techniques & Practice: ALL THREE necessary

3. Meditation is NOT an action: *It is a state of mind*

4. Meditation is part of Yoga & is two-fold: Concentration(FA) & Mindfulness (OM)
Practicing SYMPro-SR (wellness model) on self is necessary to learn the Y-MBCT (illness models): Your own practice will further guide you!

Philosophy

ALL THREE NECESSARY

Technique

Practice

Not that difficult!
Yoga in its entirety

PHILOSOPHIES about MIND

TECHNIQUES for control of mind

PRACTICE in Daily Life

HEALTH
PHILOSOPHY
ORIGINAL THINKERS:
Buddha, Patanjali & Vivekananda
(Ancient India & Modern India)
Yoga as proposed originally: Ancient India

- **YOGA in its entirety: Contemplative strategies to gain insight:**
  - About nature of thoughts & experiences (so that wisdom will govern our actions)
    - The Eight Limbed Yoga (Patanjali; 4th cent. BC)
    - The Noble Eight-fold Path (Buddha, 6th cent. BC)
    - The Middle Way Philosophy & Life Style

- Philosophy of Yoga is based on the facts below:
  - ✓ All human experience created from WITHIN (the locus).
  - ✓ **Stress:** By Cognitive Dissonance (Maya)
  - ✓ Amelioration of stress & change of experience are possible: By changing the internal representations (insight + wisdom)
Profound Bio-Psycho-Social Views in Yoga: Life Style, Body & Mind

Patanjali’s 8 Limbs of Yoga

1. Yamas
   - Ahimsa: non-harming
   - Satya: non-lying
   - Asteya: non-stealing
   - Brahmacharya: control of sexual desire
   - Aparigraha: non-attachment

2. Niyamas
   - Soucha: cleanliness
   - Santosha: contentment
   - Tapas: zeal for yoga
   - Svadhyaya: self-study
   - Ishvara-pranidhana: surrender

3. Asana
   - Pose

4. Pranayama
   - Intense focus
   - Breath
   - Withdrawal of the senses

5. Pratyahara
   - Intense meditation

6. Dharana

7. Dhyana

8. Samadhi
   - State of oneness

Things you do

Things that happen to you
Meditation is 6th & 7th limbs of Eight Limbed Yoga (Pradhan’s Book, 2014)

FIRST PHASE OF PRACTICE

Preparation for Meditation

Steps 1 & 2: Yogic Life Style (Middle Way)
- Step 3: Posture (No motion: Locking In) (Asana)
- Step 4: Breath Control (Pradhan’s standardized methods) (Pranayama)

SECOND PHASE OF PRACTICE

Meditative Absorption

Step 5: Concentration Focused Attention (FA) (Pratyahara) (Dharana)

Step 6: Mindfulness meditation/ Open Monitoring (OM) (Buddha’s Bare Attention) (Dhyana)

Step 7: Yogic enstasis begins from here.
- NIBBANA

Step 8:
- SAMADHIS
- Various levels: lead to final liberation / Enlightenment

Transition from Body to MIND

Meditation is 6th & 7th limbs of Eight Limbed Yoga (Pradhan’s Book, 2014)
MIND from YOGIC POINT OF VIEW

MONKEY METAPHOR: Mind can run amok...

PEARL & OYSTER METAPHOR: What we perceive as REAL is actually an ILLUSION

The TRI-PARTITE MODEL of CONSCIOUSNESS:

1. Scene/Seen
2. Instrument to see (Mind)
3. The Seer (Soul/Self)

Basic Property of Mind: Projection/ ‘Vikshepa’

Mechanism of action of YOGA:
- Reversal of projection: turns mind inwards...
- Integrated awareness of SELF & OBJECTS
- Stress reduction, Change in aspects of personality etc...
Three modes of operation of Mind:

- **DOING Mode**: Default mode (On call mode)
- **BEING mode**: (Vacation mode; Being One with experience)
- **DRIVEN-DOING**: Deadline mode (No experience)

**GOOD FUNCTIONING**: More ‘Being’ mode, less ‘Doing’ mode, much less ‘Driven-doing’ mode

**HOW**: By upgrading the technology to master the mind
The Five Factor Model of Human Experience in the Abhidhamma (Buddha: 6th cent. BC)

- Human Experience is a Co-creation by the Aggregates
- All Experiences are Temporary & Prone to Change
- Stress & Happiness are experiences: Can be changed
- One’s Field of Awareness is the Platform to Experience/Experiment to effect the Change
- Distractions during meditation are experiences as well that can be handled
FIVE FACTORS MODEL OF MIND: Experience as co-creation of these aggregates (Buddha, 6th century BC; Pradhan, 2014)

- Thoughts: Ruminations, Delusions, Cognitive distortions
- Feelings: Emotional outbursts
- Will, Urge, Impulses: Drug craving, Compulsions, Impulse
- Sensations, Perceptions: Somatic Symptoms, Hallucination
- MEMORY: Amnesia, PTSD flashbacks

CHANGE OF EXPERIENCE IS POSSIBLE
TECHNIQUES
The Five Aggregates in co-creation of all Human Experience: everything is just elaboration of these five phenomena.

Panic experience can be seen as a prototype of this model (Adapted from Pradhan’s Book, 2014)
Meditation is **Detached Observation of the Mind** (*Phenomena*)

- Mind & Meditator are Different from each other
- Detached Observation of Mind (*five factors*) is necessary
- This gives rise to the Insight & wisdom (that will govern our actions)

**Mind & Meditator:**

**The Lake Model**

(adapted from *Raja Yoga* : Pradhan, 2014)
DEMONSTRATION of Y-MBCT TECHNIQUES

● Breathing → Breathing Meditation
  (all 7 steps in 3 stages: SMPs: Pradhan, 1993 onwards)

● Basic Tools: You (nobody else) & Your Body + Breathing

● Technique: Concentration (centering of consciousness) +
  Mindfulness (Sati Patthana) +
  The Middle Way (The whole life is a meditation)

● Generalization to Daily Life is Necessary (Practice Log)
Tools in SYMPRO-SR & Y-MBCT

- Philosophies of Mind & Life: *Middle Way & Five Factors Model*
- Based on meditation as science of **attention** & **empathy**
- Cognitive & Behavioral tools for standardization & adherence
- Standardized sitting posture & Yogic procedures (*Kriya*)
- Conscious Sensory Withdrawal (Sans. *Pratyahara*: 5th step)
- Attaining the meditative states with standardized use of the 2 meditative styles: Concentrative (FA) & Open Monitoring (OM)
  - Concentrative meditation: **TRATAK** (fixed gazing)
  - Open Monitoring: **MINDFULNESS** (with five factor model)
PRACTICE:

SYMPRO-SR
&
Y-MBCT
You need to Practice: Tips for Y-MBCT

- **Routine Practice at Home (Longer version):**
  - 15 minutes in AM after waking up
  - 15 minutes at night before going to bed

- **Quick Practice at Work (Shorter version):**
  - As needed practice: 5 minutes in situations of daily life

- **Use of Specific Model for Patient:** 3-4 training sessions for the healthcare provider is necessary.

Can be used in any setting: inpatient, outpatient, bedside or As home practice
**Standardized Yoga & Meditation Program for Stress Reduction (SYMPro-SR©):**
Use of Yoga In Its Entirety for **WELLNESS** (Pradhan, 1993 onwards)

**FIRST PHASE OF PRACTICE**

- **Preparation for Meditation**

**SECOND PHASE OF PRACTICE**

- **Meditative Absorption**
  - **Step 8:** Yogic enstasis begins from here.
  - **Step 7:** Mindfulness meditation Proper or Open Monitoring
    - Various levels of samadhis lead to the Final Liberation or Enlightenment

**HIGHLIGHTS**

- Uses Yoga in entirety (Not piecemeal)
- Scriptural, standardized & scientific
- 15, 30 & 45 min. format
- Y-MBCT is psychotherapy version
- Compatible with other therapies or meds

**Steps 1 & 2:** Yogic Life Style (**Middle Way**)

- **Step 3:** Posture (Erect spine, Sitting, No motion)
- **Step 4:** Breath Control (Pradhan’s standardized methods)
- **Step 5:** In-drawing of senses (**Pratyahara**)
- **Step 6:** Concentration or Focused Attention (FA) [Buddha’s Bare Attention] [Buddha’s Satipatthana]
TIMBER© as a Prototype Model Specific for PTSD

(Pradhan et al, 2013 onwards, NIA/NIH)

- FEARFUL TRAUMA MEMORIES
  - Hyperarousal symptoms
  - Flashbacks of trauma

- Mini-TIMBER

- Stable Trauma memories become labile and extinction is triggered

- TIMBER (Trauma Interventions using Mindfulness Based Extinction and Reconsolidation)

- Full TIMBER

- Existing memories (now labile) are updated with new memories

- Spontaneous trauma narratives by patient in a therapist-assisted setting

- FEAR-FREE NEW MEMORIES
  - No arousal symptoms
  - No flashbacks of trauma

- Standardized Y-MBCT protocols to modify expression of the Trauma Memories & Fear Learning Mechanisms in Refractory PTSD

- TIMBER can be used alone

Or

In combination with other PTSD Specific meds/therapies
Y-MBCT for Panic Disorder

Apply Mindfulness techniques

Window of opportunity

“Mini Panic”

“Panic Hill”
Clinical Case from Y-MBCT Clinic @Cooper:

Dx: 15yrs, F: Panic disorder, social phobia, depression

Symptoms conceptualization:
- **Body level:** hyper-arousal, fatigue, headaches
- **Mind level:** Misinterpretation, Distraction, avoidance (to cope), forgetfulness

Y-MBCT Intervention (Staged Meditation Protocol):
- 8-10 sessions (therapist assisted f/b home practice)
- Stage-0 (preparing): Yogic education +Life style+ Home practice
- Stage-1: Concentrative Meditation (standardized breathing + FA)
- Stage-2: Mindfulness Meditation (detached & sequential observation of mental events, monitoring to avoid misinterpretation, affect regulation)

Use of standardized rating scales + Specific scales

D/C planning with booster when Sx controlled & able to use in daily life

DIFFERENCES from traditional CBT: Therapist practices with patient
SUMMARY: SYMPro-SR & Y-MBCT

✓ Scriptural but scientific: Evidence based & feasible

✓ Psychologically, neuro-biologically & spiritually informed

✓ Feasible for monks as well as modern people: Meditative Life Style (*Middle Way*) standardized as well

✓ Compatible with
  ❖ Illnesses & wellness
  ❖ Other therapies (Psychotherapies, Medications, TMS)

✓ Huge potential for further collaborations & applications in multi-center trials examining utility of Yoga & mindfulness
REFERENCES:

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