Mindfulness Tools as a Value-Based Intervention for Transformative Practice

Karen Mueller, PhD, DPT, PT
Professor, Physical Therapy Dept.
Northern Arizona University
Flagstaff AZ
Disclosure

• No relevant financial arrangement exists in the development or delivery of the following presentation
Session Learning Objectives

Following this presentation, the learner will be able to:

1. Describe evidence supporting the value of mindfulness training in the context of the therapeutic encounter
2. Apply strategies for introducing and describing the concept of mindfulness based interventions in the context of the therapeutic encounter
3. Describe a sequence of mindfulness based practices that promote well being, sensory motor awareness and emotional self regulation in the service of patient centered outcomes
4. Develop strategies to enhance patient adherence outside of the therapeutic encounter
Overview

• How is value defined in the healthcare system?
• How do mindfulness based interventions support value as currently defined?
• The science of mindfulness
• Practical application: A 6 week course for patients living with MS and Parkinson’s disease
• The quadruple aim: Promoting mindfulness in the healthcare workplace
Our Professional Compass

• IHI Triple aim

• APTA Beyond 2020 Vision

• APTA Core Values

Accountability
Altruism
Compassion/Caring
Excellence
Integrity
Professional Duty
Social Responsibility

APTA Vision Statement:
Transforming society by optimizing movement
to improve the human experience.

• Identity
• Quality
• Collaboration
• Value
• Innovation
• Consumer-centricity
• Access/Equity
• Advocacy
What is value in healthcare (Porter, NEJM 2010)

• Health outcomes achieved per dollar spent
• Based on results, not process
• Should encompass all services involved in meeting patient needs
• Shared accountability among providers
• Purpose is not to compare providers, but encourage innovation
3 Tiers to value

• Tier 1: Health status achieved or retained
  – Does intervention promote survival?
  – Example: Breast cancer survival and remission rate

• Tier 2: Time to recovery and return to normal activities
  – Does intervention minimize discomfort which interferes with recovery
  – Example: Pain from breast reconstruction

• Tier 3: Sustainability; long term consequences
  - Does intervention promote lasting improvements in function?
  - Example: Does lymphedema treatment promote lasting UE function?
Based on this model, interventions should:

• Reduce mortality rates
• Promote recovery and return to meaningful activities
• Promote sustainable results over time
Multi-tier evidence
The Impact Of Mindfulness Training On Reduction Of Mortality

• Mindfulness-Based Stress Reduction Training Reduces Loneliness and Pro-Inflammatory Gene Expression in Older Adults: A Small Randomized Controlled Trial (Creswell et al, 2012, Brain, Behavior and Immunity)
  – In 40 lonely adults, 8 weeks of mindfulness training resulted in significant reductions in feelings of loneliness and C-reactive protein
Depression

- Effectiveness and cost-effectiveness of mindfulness-based cognitive therapy compared with maintenance antidepressant treatment in the prevention of depressive relapse or recurrence (PREVENT): a Randomised controlled trial (Kuyken et al, Lancet, 2015)
  - Mindfulness equal to medication in the management of depression
  - Mindfulness more effective in preventing relapse of major depression in 24 month follow-up
Evidence on Relapses

- Mindfulness Based Cognitive Therapy (MBCT) halves the likelihood of depressive relapse in the year following the treatment for people who had more than 3 or more episodes (Ma & Teasdale, 2004; Segal et al., 2007)
- MBCT (3rd wave of Behaviour Therapy) is one of NHS approved treatments for depression
Disease related fatigue

• Mindfulness interventions included in the National Institute of Health and Care Excellence (NICE) guidelines for the management of Multiple Sclerosis fatigue (2014)

• Mindfulness for the Self-Management of Fatigue, Anxiety, and Depression in Women With Metastatic Breast Cancer: A Mixed Methods Feasibility Study (Eyles, 2015)
  – Improved pain, fatigue and QOL among 19 women with end stage metastatic breast cancer
Obesity

• Acute responses to opioidergic blockade as a biomarker of hedonic eating among obese women enrolled in a mindfulness-based weight loss intervention trial (Mason et al, 2015)
  – Mindfulness training reduces hedonic eating associated with binge eating and obesity
Chronic Pain

• Altered Neural Activity Associated with Mindfulness During Nociception: A Systematic Review of Functional MRI (Bilevicius, 2016, Brain Sci)

• Mindfulness training positively alters neural activity associated with:
  – Anticipation of pain
  – Unpleasantness of pain
  – Intensity of pain
Sustainability

Pilot testing of a mindfulness- and acceptance-based intervention for increasing cardiorespiratory fitness in sedentary adults: A feasibility study. (Martin, 2015)

Mindfulness training supports participation in vigorous physical activity programs in sedentary adults
“You cannot serve from an empty vessel”
Barriers to achieving value based outcomes

• Lack of interprofessional communication/collaboration
• Increasing attentional demands (documenting while treating)
• Productivity demands (quantity vs quality)
• Provider burnout/disengagement
Poor patient outcomes are a reflection of mindlessness in our current healthcare system
Impact

• Preventable medical errors are the third leading cause of death in US (440,000/year)
• Physician burnout rate over 50% (medscape, 2016)
Mindfulness: The One Skill That Can Transform Healthcare (Leebov, 2014)

- Executives: Focus and prioritization
- Staff: Compassionate communication with colleagues and patients
- Physicians and health providers: Reduces burnout and disengagement
- Patients: “Mindfulness is critical to self care and should be the no.1 item on the patient’s discharge and lifelong wellness plan”
Mindful healthcare systems

• Provide mindfulness training for staff and patients
• Make mindfulness a work expectation for all staff
• Start small; pair mindfulness activity such as deep breathing every time you do a routine activity (wash hands, knock on patient door)
• Commit to your own practice
Mindful healthcare organizations

• CAHMI: Child and adolescent health measurement initiative: “Mindfulness in Pediatrics”

• Hospice of the Valley, Phoenix AZ: Mindfulness training and practice sessions for staff, patients and caregivers

• Aetna Insurance: Workplace mindfulness programs
Changing lives, one patient at a time

- Tracy, a 62 year old woman with a 25 year + history of M.S., now in secondary progressive stage
- Losing ambulatory ability (household only)
- Her biggest impairment is FATIGUE, which is compounded by ongoing stress
- Fatigue is preventing her from engaging in meaningful physical therapist intervention program
Six week mindfulness program for patients with Parkinson’s disease
What is Mindfulness?

Mindfulness is non-evaluative and sustained moment-to-moment awareness of thoughts, physical sensations, and affective states.

(Grossman et al., 2004)
What is Mindfulness?

An *attribute of consciousness*, i.e. a state of being *attentive to* and *aware of* what is taking place in the present moment.

(Brown & Ryan, 2003)
Wellbeing

Five components (Seligman, 2011)

- **Positive emotions**
- **Engagement**
- **Relationships**
- **Meaning**
- **Accomplishment**

Role of Mindfulness in enhancing well-being as it increases positive emotions.  
(Huppert, 2011)
How is Mindfulness measured?

Mindful Attention Awareness Scale (MAAS), Brown et al, 2003.

1. I could be experiencing some emotion and not be conscious of it until some time later.
2. I break or spill things because of carelessness, not paying attention or thinking of something else.
3. I find it difficult to stay focused on what’s happening in the present.
4. I tend to walk quickly without paying attention to what I experience along the way.
5. I tend not to notice feelings of physical tension or discomfort until they really grab my attention.
6. I rush through activities without being really attentive to them.
7. I find myself preoccupied with the future or the past.
8. I get so focused on the goal I want to achieve that I lose touch with what I am doing right now to get there.
9. I snack without being aware that I’m eating.

etc...
Stress Reduction at Work

Random Control Trial

- 8-week MBSR training for health care employees
- From 51 interested, 18 selected for Training and 20 Control but 10 T and 18 C due to drop out.
- Positive changes on all 5 scales:
  - Satisfaction with life
  - Burnout scale
  - Perceived stress
  - Brief symptom inventory
  - Self compassion

Many applications

- **Health** (preventative depression; lifestyles; etc)
- **Wellbeing** (resilience, stress reduction)
- **Cognitive skills** (attention, focus, memory)
- **Self-regulation of emotions**
- **Interpersonal skills** (communication, assertiveness)
- **Leadership** (decision-making, perspective)
- **Team development** (awareness of others’ needs)
References