Enhanced Medicine

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Overview

• Enhanced Health/Enhanced Medicine

• Healing v. Treatment

• Personal Healing

• Practical Considerations
  – Personalized Healing
Medicine and Healthcare Definitions

• **Traditional ‘Western’ Medicine** - system in which medical doctors and other healthcare professionals treat symptoms and diseases using drugs, radiation, or surgery validated through scientific investigation.

• **Alternative Medicine** - healing practice not based on conventional medicine but historical and cultural traditions rather than scientific measures.

• **Complementary Medicine** - no longer alternative.

• **Integrative Medicine** - combines conventional medicine with alternative and healing medicine to address the whole person, promote healing and a wellness approach to preventative care and illness.
Traditional Medicine and Unmet Need

• Who
  – Women, higher education, chronic illness (2-5X), Elderly
• Why
  – Control
  – Distrust in Healthcare
  – Perceived Safety
  – ‘Natural’
  – Limited Access
  – Cultural
  – Marketing
  – Belief in innate healing and self-reparative processes

PGM 2002.78:612, BMC Public Health 20066:168
Healing

- Healing - the physiologic process of tissue and organ system repair

- Personal Healing - themes of wholeness, narrative, and spirituality. Healing is an intensely personal, subjective experience involving a reconciliation of the meaning an individual ascribes to distressing events with his or her perception of wholeness as a person.

Healing in Traditional Medicine

• Placebo and Nocebo
Placebo Effect

• “Placebo Domino in regione vivorum” I shall please the lord in the land of the living (Psalme 116:6)

• Definition- nonspecific effect of therapy
  – Nuisance of the RCT (sugar pill)
  – Statistical Effect
  – Contextual
Placebo Response Theory

- Conditioning
- Expectation or cognitive theory
- Meaning Theory - broadens practical scope
  - People respond to the meanings and situation not the placebo themselves  
    Frenkel 2008
  - Studies that maximize meaning  
    Vase 2003
Placebo-induced DA release is strongly related to the levodopa response, prior experience and expectation.

Lidstone et al., Arch Gen Psych, 2010
Meaning affects outcome

- Clinician’s manner, environment, language
- Trade name, pill, needle, surgery
- Meaning, Culture and Medicine
  - Chinese Americans die earlier if they have disease and birth year which Chinese astrology and medicine consider ill fated  
    Phillips 93
  - Intensity of effect correlated to strength of cultural commitment
Contributions to Placebo

• Patient realm
  • Patient’s experience
  • Perceptions
  • Meaning, belief and hope

• Clinical realm
  • Clinician’s expectation
  • Clinician-patient relationship

• Relationship to disease and treatment
Enhanced Medicine

- Improved treatment, prevention and wellbeing when life choices, experiences and therapeutic interventions align with a person’s values and meaning to promote wholeness and personal healing
  - Proactive
  - Life enhancing
  - Engaging
CAM Therapies to Enhance Health
NCCAM

• Natural Therapies
• Body therapies
• Mind-Body Medicine
• Energy Medicine
• Culture, Community and Environment
• Healing and Medicine Systems
Meaning and Wholeness
Natural Therapies
Vitamin, Supplement, Botanicals, Food
Natural Therapies
Value and Meaning

• Food as medicine
• Nurturing the body, soul and mind
• Healing power of nutrients in nature
• Connection with culture, community and earth

• --- Quick fix in a pill?
Natural Therapies

• Anti-oxidant- Vit E, C, GTH, NAC
• Anti-inflammatory- Vit D, Tumeric, Omega 3
• Bioenergetics- Creatine, CoQ10, NADH, Coconut Oil
• Immune Modulator- Vit D
• Neurochemical- Melatonin, SAMe, Tyrosine (amino acids)
Natural Therapies
Vitamins, Supplements, Botanicals & Food

• Vitamins ? benefit without deficiency
  – Reductionist theory
  – Equivalence
    • Components in isolation ≠ Components in nature
  – Study design difficulties

• Deficiency- Elderly (B12, D, Mg, Zc), Alcohol (thiamin, folate B6, B12), Pregnancy, Malabsorption (A,D,E,K), Vegans, vit d-MS/PD
Chemical properties v. whole food and meal pattern effects

- Amino Acids building blocks for muscle and cell growth, energy
- Animal Protein
- Vegetable Protein

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Food for Energy

- Calories
- Boost efficiency of metabolism
- Stimulants
- Enhance mood

- Low GI/ GL foods - whole grains
- Magnesium rich foods - healthy on the go snacks - nuts
- Fiber - oats
- Water
- Coffee/ tea/chocolate
- Frequent Meals
Food for Mood

- Enhance serotonin
- Folate
- Omega 3s
- Vitamin D
- Selenium
- Calories

- Leafy greens, whole grains, legumes, nuts
- Chocolate
- Fortified cereals/milk
- Low GI/ GL foods- whole grains
- Seafood, legumes, nuts
- Coffee/ tea/chocolate
- Frequent Meals
Food for Anxiety

- Enhance serotonin
- Boost calming neurochemicals
- Reduce stimulants
- Calming foods
- Mindful eating
- Frequent meals
- Whole grains
- Chocolate
- Lemon balm, chamomile
Top 10 Picks

- Vinegar
- Olive Oil
- Oats
- Pigmented fruits and vegetables
- Flax
- Green Tea
- Chocolate
- Salmon
- Tumeric
- Cinnamon
- Cruciferous Vegetables
Body Therapy
Body Therapies

• Physical Therapy - focus on body pathology
  – Joint, muscle, neural control of movement
• Exercise - general health (cardiovascular), stamina, mood, motor control, performance and Neuroplasticity
• Neuro-re-education
• Manipulation
Exercise and Longevity

- **Body Performance**
  - Posture, Balance and Sensory Integration

- **Neuroplasticity**
  - Learning theory
  - Intensity
Exercise and Neuroplasticity

J Gerontol. 61.116, Neurology 2012. 78
Exercise and Sport Science Review 2011. 39: 177
Neuroplasticity and Lifestyle Medicine
Exercise and then some

• Learning and Intensity
  – Even Small Changes Matter
  – Practice is important
  – Task Specifics Activities

– Meaning and Wholeness
  • Complexity
  • Enrichment
  • Stress
  • Mind-Body- Soul
Wellness is a Balance
Caution about Reductionism

• Tango (Tai chi) improves balance
  – Physical
  – Aerobic
  – Musicality
  – Creativity
  – Social
  – Relaxation
  – Engagement
  – Learning
  – Pleasure
  – Relational
  – Emotional Impact
  – Touch
Exercise for Meaning and Wholeness

• Posture
Exercise, Neuroplasticity and Longevity

• Posture and Balance
  – Normal Aging
  – Mood and Behavioral Correlates
  – Proprioceptive Changes
  – Engagement
Proper Posture

• **Physical Aging**
  - Reduced performance including hand grip
  - Increased mortality and death to atherosclerosis

• **Confidence & Wellbeing**
  - Inc testostosterone
  - Reduced Cortisol
  - Improved game performance and risk

• **Energy & Stamina**
  - Efficiency and Biomechanics

• **Engagement**
  - Physical and Social
  - Communication
Posture And Balance Exercises

• Muscle Flexibility
• Joint mobility
• Strong muscles of posture
• Balance and symmetry of spinal muscles

• Proprioceptive Awareness
• Emotional & Behavioral Awareness
Mind- Body

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Mind Body Therapy

• **Mind Body Medicine**
  – Interactions between mind and body and the powerful ways in which emotional, mental, social and spiritual factors can directly affect health

• **Mind Body Therapy**
  – Integrate the mind-body and spirit, working on the premise that these systems are intimately connected and can not be isolate for true healing
Mind-Body

• Understanding the connection between mind-body and spirit

• Value of mind-body work
  – Stress
  – Positivity and Possibility
Mind-Body Therapy

• Tai chi, Yoga - Understand impact of style, certification
  – Physical v. Mindful v. Therapeutic

• Meditation - ‘Mindfulness’
• Hypnosis
• Breathwork
• Guided Imagery
• Music therapy
• Nature based

Movement Disorders. 2009 24:2059
Stress Response

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Neurologic Control of Stress

**Sympathetic - fight or flight**
- Dilated pupils
- Sweating
- **Rapid breathing**
- Increased heart rate and blood pressure
- **Increase alertness, agitation**
- Sense of alarm
- **Increase muscle tension and shaking**
- Activation of your adrenal glands
- Shunting of blood to muscles for action.

**Parasympathetic - recovery**
- Decreased blood pressure
- Decreased pulse
- **Slow, regular breathing**
- **Reduced muscle tension**
- Reduced anxiety
- **Emotional wellbeing**
- Shunting of blood to internal organs such as the GI tract for digestion.
- Sense of protection
Nerve Control of Stress
Sympathetic and Parasympathetic Nervous System

Fight or Flight
Relaxation and Recovery
Breathwork
Anywhere, Anytime, Anybody

Heart Rate Variability

• Function of sympathetic-parasympathetic balance
Positivity, Possibility, Intention

Did you know...

• Type of stress correlate with heart mortality- anger, work stress (control), social support
• Meaning and purpose associated with less cognitive decline in AD
• Positivity associated with greater resiliency to distress
Positivity

• Practice
  • Attend to your negative thoughts and ideas
  • Debate your negative thoughts
  • Laugh
  • Surround yourself
  • Language
  • Appreciate the moment, the senses
  • Gratitude Journal
Appreciate the Moment
Gratitude Journal

• Write down 5 things you are grateful for in a week—from the mundane to incredible
  – Don’t just go through the motions.
  – Go for depth over breadth.
  – Get personal.
  – Try subtraction, not just addition.
  – Savor surprises.
  – Don’t overdo it
  – Language
Priority and Intention
Energy Medicine
Energy Medicine

• Manipulation of energy fields to affect health.
  
• Veritable (measurable)
  
  – Magnet Therapy
  
  – Light Therapy - full spectrum light (sunlight) with UV filter-
    SAD, energy, time shifts. Movement Disorders, 2007. 22(10), 1495–1498
  
  – Sound therapy - high frequency, tuning forks)tuned to
    planets, chanting, singing bowels, planets) (birds, nature,
    classical music) energizing, music- emotional tones

• Putative (yet to be measured).
  
  – Reiki
  
  – QiGong
  
  – Healing Touch
  
  – Acupuncture

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Sensory Therapies

• Wholeness- Integrations of senses with mind and body to effect health, emotions and behavior
Aromatherapy

• Pure essential oils, fragrant essence extracted from plants by distillation
  – Learned Response- past experience evoke emotional response
  – Perception of pleasantness
  – Direct Neurochemical Effect
Neuroanatomy & Aromatherapy
Neurochemistry & Aromatherapy
Neurochemistry & Aromatherapy

• Calming Effect- reduce Glutamate, enhance GABA

• Energizing and Cognitive Effect- enhance norepinephrine, acetylcholine

• Mood Elevating Effect- enhance serotonin, norepinephrine
Enhance Self-Healing Capabilities

• Harnessing the Meaning Response

• Focus on wholeness-Be vigilant of reductionist approaches
  – Enhance your medical care
  – Self - Care
Enhance Self-Healing Capabilities
Healthcare

• Modify harmful expectations before engaging multiple interventions
• Enhance awareness, information
• Engage and be present in the clinical relationship
• Individualization
• Raise hope and alleviate anxiety
• Align beliefs in your therapies
• Therapeutic rituals
• Create a healing space
• Surround your self with positive influence
• Reduce anxiety by multiple means
• Couple valued therapies with traditional ones
• Use ritual to your advantage
• Share your empathy, compassion and healthful knowledge with others
Healing and Medicine Systems

- Believe in your healing potential - crate a partnership with your provider
- Advocate and Educate yourself and your provider
- Align with your therapy -
  - I.e. Know what it can do for you
- Enhance therapeutic outcomes with healing practices
  - I.e. Mindfulness therapy coupled to medical therapy
- Reduce the stress of medical visits
  - I.e. Aromatherapy and breathwork while you wait
- Find the positive
- Align with your values, beliefs
- Create a healing space and ritual
Caution
Questions and Comments

• Sign up for our e-Newsletter for information on our programs and healthier living choices at www.centerformovement.org