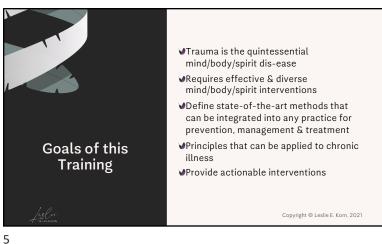


Disclaimer and Conflict of Interest

- "Materials in this course may include interventions and modalities that are beyond the authorized practice of mental health professionals. As a licensed professional, you are responsible for reviewing the scope of practice, including activities that are defined in law as beyond the boundaries of practice in accordance with and in compliance with your professions' standards."
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The Dis-ease of Disguise

- ◆Traumatic stress is underdiagnosed & misdiagnosed
- **♦**Over 7.7 million Americans have PTSD
- ◆Common causes (non-military) motor vehicle & physical assault
- ▶PTSD & Complex Trauma is often "disguised" in other symptoms
- ▶People often seek help for somatic complaints w/o knowing the cause(s)
- **⊌**Unaware of the connections among their symptoms
- ⊌If you don't ask about trauma, you may not be told
- ◆Requires comprehensive & ongoing assessment

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Adverse Childhood Events

- ⊌61% of adults (25 states) reported at least one type of ACE
- ●1 in 4 reported 3+ types
- ▶1 in 6 reported they had experienced 4+ types of ACEs
- ◆ACEs may not develop into PTSD
 - problems & more

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Complex Trauma

- ▶Prolonged physical or emotional captivity long term sequelae
- ▶Adverse alterations on the normal development of the nervous system
- ▶Decreases effectiveness of the stress response, desensitization
- ◆Chronic dissociativity
- ⊌Inability to self-regulate emotion
- ◆Chronic physical & emotional problems; psycho-somatic
- ◆Chronic attachment challenges → interpersonal reactivity

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Trauma as Dissociative Dis-order

- **⊌**Dissociation is part of a symptom matrix
 - **⊌**somatization
 - **⊌**self-injurious behavior
 - ⊌self-medicating behaviors, addictions
- **⊌**Elective surgeries, eating disorders
- ■Unresolved physical complaints for which there is no apparent cause
- ◆Dissociation also involves the capacity for enhanced self-regulation & pain control

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DSM5 PTSD: Dissociative Subtype

- Meets full criteria for PTSD, dissociative symptoms
- ▶ Addition to the two dissociative symptoms in the core diagnostic
- ◆Dissociative flashbacks & dissociative amnesia
- ◆PTSD, more than fear & anxiety
- Multiple domains; neurological pathways, suicidality

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Dissociative Spectrum

- ◆Dissociation occurs along a spectrum
- **⊌**We all dissociate
- ⊌Integrative Medicine for trauma, 2 types of integration

 - ⊌help the individual integrate, within themselves
- Methods that help gain control over dissociation

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Complex Trauma, PTSD, & Health Sequelae

- ✓ Adverse Childhood Events
- ✓ Veteran status
- ✓ Interpersonal violence
- ◆Clergy & clinical abuse, medical, migration
- ◆Chronic health problems are co-morbid
- ▶Difficult to treat b/c of dissociation & compartmentalization of care ▶pain, depression, GERD, IBS, tobacco, substances, liver disease, obesity, elective surgeries, chronic pain, autoimmune, GB surgery, headaches
- **⊌**Often a dis-ease of hopelessness, disconnection, loss of meaning

Tilson, 2018

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Trauma as Attachment Dis-order

- ◆Trust, betrayal, second guessing, numbness
- →Hyper & hypo-reactive
- Secondary trauma & our responses to exposure....
- ◆The clinical relationship
 - **⊌**challenges in transference & countertransference
 - **⊌**"borderline" diagnosis critique

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Adherence to Self-Care Plans

- **⊌**Adherence challenges
 - ✔learning self-care, often for the first time
 - **⊌**learned helplessness
- ⊌Seligman's research
 - wserve as therapists, guides, role models, coaches, walk-while-we-talk therapists, have coaches on staff, name our availability

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The Mind-Body Problem

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Therapeutic Goals

- Manage symptoms, bring relief
 - √anxiety, insomnia, hyperactivity, pain
- ✔Restoration of rhythms of life
 - ✓ circadian rhythm, sleep, cortisol
 - **⊌**ultradian rhythm

 - ●stress response: Hypothalamic -Pituitary-Adrenal-Thyroid (HPAT)
 - **⊌** enhance resilience

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Therapeutic Goals

- ₩Enhance self-capacity to self-nourish the brain, body & mind
- ✔Reduce & gain control dissociativity
 - ✓ decondition body held memory & SDMLB
- ▶Enhance mitochondrial, neurological function w/ nutrition & exercise
- ■Reduce or eliminate pharmaceuticals
- ⊌Identify & address mild traumatic brain injury (mTBI), a hidden epidemic
- ◆Restoration of capacity for attachment & connection
- ✔Restorative clinical connection & care
- ■Support meaning & purpose

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Principles for Effective Integrative Treatment

- ⊌Human connection
- ■Role model
- Matching the stage of trauma to the intervention
- ▼True integration, not just adding "stuff" in
- **♥**Options for methods
- ⊌Do not overwhelm, less is often more
- ♥Organize treatment needs according to metaphor & patient's narrative
- ◆Describe & define, revisit the priorities

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Clinical Applications

- **V**Nutritional deficiencies
 - ◆effects of drugs on nutrition status
 - ▶anti-psychotic drugs & some antidepressants: metabolic syndrome
- ⊌statins deplete the body of coenzyme Q10, affects heart & energy
- ▶ Alternatives to pharmaceuticals or reducing dose w/ nutrition
- **⊌**Identify & reduce risk factors
- ▶ Family engagement & health, caregiver health
- **⊌**Genomics
- ▼Toxic exposures: war, home, the fields
- **⊌**Culture & SES
- ⊌Individualized treatment plans



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Your Clinical Opportunities

- ■Very few clinicians are trained in the "full picture"
- ◆Success w/ complex cases
- **▶**Develop integrative mind-body trauma groups
- ▶Success w/ people & communities where stigma persists
- ◆Growing trauma (war, refugees, migration, aging veterans)
- **⊌**Understand the story of the body when working in therapies
- ▶Establish new bi-directions for referrals & collaboration
- ◆Course content ranges from beginner to advanced ⊌return to study the content again & again as needed

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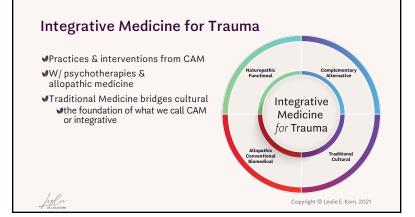
Embrace Our Work

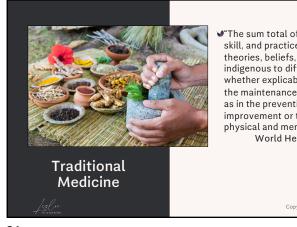
- ■"Medicine"
 - ⊌Sanskrit: *mā*, meaning "mother" & "to measure"
- **⊌**Therapeutikos

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⊌"The sum total of the knowledge, skill, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness."

World Health Organization

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Terms of Reference

- ◆Complementary & Integrative Health (NIH)
- **▶**Functional Medicine
 - ⊌systems, biology-based approach
- ■Naturopathic Medicine
 - ◆the healing power of nature

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Terms of Reference

- ✓Clinical Systems Biology
- **⊌**Nutrigenomics & Personalized/Precision Nutrition
 - ⊌genetic, phenotypic, medical, nutritional needs
- **⊌**Lifestyle Medicine
 - ♦ whole-foods, exercise, restorative sleep, stress management, avoidance of risky substances, positive social connection as primary
- ✔Integrative Medicine
 - ◆partnership model; integrate all factors & be open to conventional & alternatives

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Why Do We Need CAM & Integrative Methods?

- ◆Body-mind integration
- ✓ Mental health stigma
- ▶Body is the "back door" to the home of mental health
- ✓ Veterans, culture, stigma
- **⊌**Diversity of methods
- ◆Stages of life
- ✔Research:
 - ⊌single course of trauma-focused monotherapy not well tolerated
 - trauma-focused psychotherapies are efficacious only in approximately 50% of patients treated

American Psychological Association, 2017; Steenkamp et al., 2015

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Why Do We Need CAM & Integrative Methods?

- ▶Talk therapy, meditation & medication work about equally
- ▶Limited success w/ treating chronic pain & preventing suicide
- ⊌Limited success w/ military personnel & veterans
- **→**Findings:
 - ▶ provide personalized, responsive care isomorphic to the individual

American Psychological Association, 2017; Steenkamp et al., 2015

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Nationwide Use of CAM

- ★The consumer is demanding these methods
- ▶2012 National Health Interview Survey
 - ■33.2% adults, 11.6% children (age 4-17) used some form of complementary health
- **⊌**CAM use among individuals w/ PTSD
 - ▶39% general population, 41% service members & veterans
- ⊌Used by survivors of torture & refugees worldwide
- ▶People of diverse ethnic backgrounds, widely practiced worldwide
- ✓ similarities to traditional medicine & cultural practices
- ▶ Cambodian refugees: 34% relied on complementary & alternative medicine

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Call to Action

- ◆The Veterans Administration's (VA) "Whole Health" program
 - ◆the mission of complementary & integrative health & medicine (CIH)
- ◆Care that is

 - whole person
 - **⊌**interdisciplinary
 - ⊌promotes optimal health & healing
- ■Integral health has a particular responsibility to implement traumainformed care

Bokhour et al., 2020; Hansen et al., 2021

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Veteran Engagement & Suicide Prevention

- ▶Veterans: 7.9% of the population, 13.5% of all deaths by suicide
- **⊌**Lack of engagement, stigma is barrier
- **◆**Complex trauma histories
- ◆Good evidence: CBT, ACT & DBT, "misses real-world application"
- ◆Critical for alternative treatment modalities, build resilience, overall wellness
 - physical activity, diet, nutrition, creative expression, acupuncture, sleep hygiene, stress management

Vitale et al., 2021

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Veteran Engagement & Suicide Prevention

- **⊌**Goals: reduce symptoms, suicide risk factors are pain & isolation
- - ♦ high levels of engagement w/ CAM & whole health approach
 - ✓ reduction: suicidal ideation, depression, hopelessness (not sleep quality & diet)

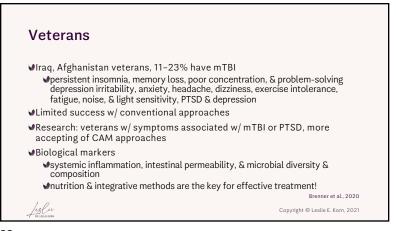
Vitale et al., 2021

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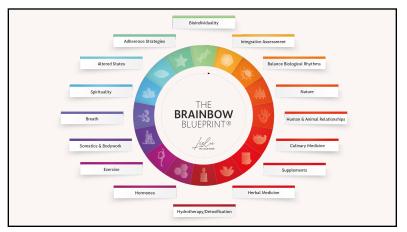
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Integrative & Nutritional Methods

→Bioindividuality→culture & ethnicity

✔Integrative Assessment
✔testing & labs

⊌Biological Rhythms

⊌Nature

⊌Human & Animal Relationships

◆Diet, Nutrients, Herbs, Glandulars
◆drug-nutrient-herb interactions

✓ neurotransmitters, amino acids

→ Hydrotherapy & Detoxification

⊌Bio-Identical Hormones

⊌Exercise & Yoga

Massage & Bodywork Therapies

✓acupuncture, electro-medicine

⊌Spirituality

✓Altered States & Psychedelics

⊌Adherence

⊌Resources

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Therapeutic Goals Nutritional Therapies

→Address cause(s) of dis-ease, imbalances

✓Inflammation & oxidative stress

Manage stress response (HPA-T)

⊌Enhance mitochondrial function

◆Nutrients for brain chemistry

⊌Balance circadian/ultradian rhythm

⊌Enhance neuronal communication

→Eliminate toxins, enhance biotransformation

◆Address genetics & epigenetics,

e.g., APOE, MTHFR

♦how foods & nutrients can alter gene expression

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Therapeutic Goals Nutritional Therapies

✔Reduce, stabilize & control blood glucose levels

⊌Enhance insulin function

✓ Reduce arterial & venous inflammation

✓ Improve arterial strength

✔Improve circulation to extremities & the brain

✔Reduce pain

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Targets of Integrative Therapies

◆Evidence exists that imbalances in these may predispose to development
of PTSD

⊌inflammation

⊌microbiome

◆fatty acids

⊌mitochondria

⊌HPA-T

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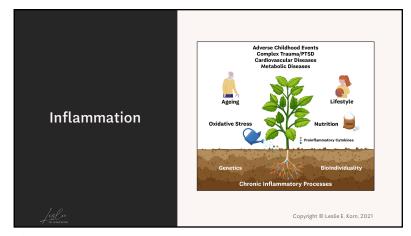
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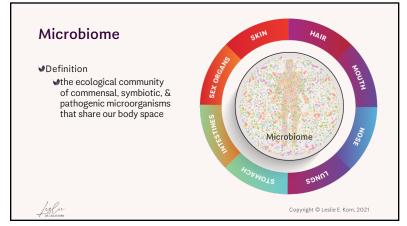
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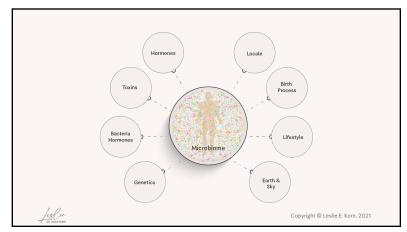
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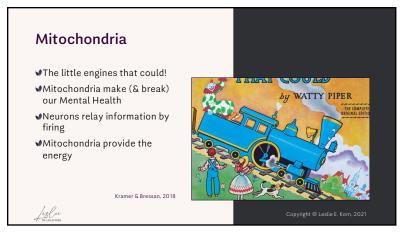
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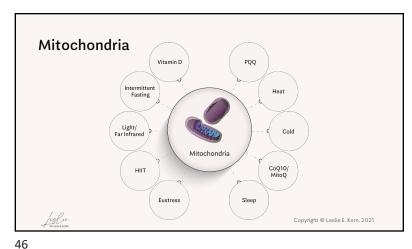
Neurotransmitters & Precursors © Leslie Korn, 2021				
NT'S	Amino Acids/Nutrients	Botanicals	Foods	Entheogens
GABA	Glutamine, taurine, glycine milk-derived neuropeptides lithium orotate	Valerian, hops, skullcap, green tea, kava	Walnuts, oats, spinach, beans, liver, mackerel	Muscimol/ Amanita Muscaria
Serotonin	Tryptophan, 5 HTP, B-vitamins, (B-12, B-6,) niacinamide, L-methylfolate	St. John's wort, bacopa, Areca catechu nut	Salmon, beef, lamb, figs, bananas, root vegetables, brown rice	LSD, Psilocybin, DMT, Ibogaine, Ayahuasca
Dopamine	B-12, B-6 Tyrosine, DL- Phenylalanine	Ginseng, fenugreek	Coffee, tea, eggs, pork, dark chocolate, ricotta cheese	MDMA/MDE Mescaline
Norepinephrine	Tyrosine, L-methylfolate	St John's wort, holy basil, licorice	Meats, fishes, cheese	MDMA/MDE Mescaline
Acetylcholine	GPC choline, phosphatidylcholine, acetyl-L- carnitine, huperzine	Sage, bacopa, Melissa, ginkgo, ashwagandha	Eggs, liver, salmon shrimp, nut butter, lecithin, coffee	Scopolamine (contraindicated)
Glutamate	Glutamine, lysine	Gotu kola, kava, passionflower	Caffeine, fermented foods, chicken, eggs, dairy	Ketamine Ibogaine
Endogenous opioids	Milk biopeptides	Papaver somniferum	Casein (milk), gluten (grains), spinach, fat, fasting	Ibogaine, Salvia divinorum
Cannabinoids	Fish oil, lactobacilli	Cannabis, hops	Hemp seeds/hemp oil	Cannabis











Cardiometabolic Disease is a Major Risk **Cardiometabolic Risk** Markers and Risk Factors Telomere status Gender Heart Rate Variability Blood pressure Inflammation Blood sugar Insulin resistance Lipids Depression APOE Hormone and vitamin status Blood viscosity/hematocrit Copyright © Leslie E. Korn, 2021

Requisites for Optimal Therapeutic Results

True partnership model
Deconstruct the pill, surgery, or expert will "fix it"
Treat the individual, not the disease
First: improve sleep
Reduce pro-inflammatory foods; w/o it there are limits
Get the body moving; w/o it there are limits
Integrate & educate on how the mind-body work together
Educate about rhythms & methods to regulate
Inhance hope for improvement
Engage the wounded healer

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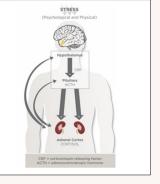
Interrelated Rhythms to Restore

- ◆The innate capacities within the individual
 ◆psychophysiological & biological self-regulation
- **⊌**Rhythms exchanged in relationships
 - ◆between people, animal friends
- ◆Somatic empathy
 - ✓ practitioner & client
- ▶Rhythms & resources regulated by nature
 - ⊌light/dark, air, color spectrum, sounds

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HPA-T Rhythms & Resilience

- **⊌**Resilience
 - **⊌**biological
 - **⊌**psychological
 - ⊌spiritual⊌balancing neurohormones



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Tend & Befriend Behaviors

- → Women (& other female animals) respond to stress by
 - ⊌engaging in activities of care & connection
 - **⊌**support social connection
 - **✓**affiliation & attachment
- **O**xytocin mediator
- ⊌Research suggests both men & women can have this response
- May be influenced by attachment styles

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Prescription & Self-Medication Drug Use

- ✔Increases risk of liver disease, dementia, early mortality
- ◆Statistically significant associations of dementia risk
 - ⊌nearly 50% increase in odds
 - ✓anticholinergic antidepressants
 - **⊌**anti-Parkinson's drugs
 - ✓antipsychotic drugs
 - ◆bladder antimuscarinics
 - **→**antiepileptic drugs
- **⊌**Long-term use of metformin
 - ⊌doubles the risk for Alzheimer's & Parkinson's
- ✓Anesthetic agents are also associated w/increased dementia risk ✓Benzos. SSRI's PPI's



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Integrating IM w/ other Methods

→Polyvagal

Jintegrative methods including ancient techniques access the vagal nerve

✓Internal Family Systems (IFS)

▶addresses challenges to self-care & adherence & engaging the whole self

★the triggers that drive the internal dialogue

■ negative self-evaluations

⊌ self-blaming, self-shaming

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Integrating IM w/ other Methods

⊌EMDR

◆rooted in ancient Tibetan yoga & advances in eye brain connections, yoga eye movement, peripheral vision

◆Post-trauma therapy

◆stage based; enhancing whole self-care & linking many forms of nourishment & meaning making

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Principles of Effective Treatment

✓ Isomorphic to the individual's belief system

✔Identify the substitutions for self-medicating behaviors

◆Do what will affect change first

⊌Plan for the obstacles

✔Identify adherence strategies

▶Engage self-care, overcome learned helplessness

⊌Identify & engage social supports

▼Trauma recovery is a social issue

Nature works slowly, but surely

▶ nature will take longer than synthetic approaches but fewer side effects

◆Clinician is truly integrative

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Trauma-Informed Nutritional & Integrative Methods

✓ Not directive

⊌Not shaming people about their self-care behaviors

⊌Understand learned helplessness & positive psychology

◆Awareness around disability, identity, body positivity

◆Awareness of the social, political contributions to trauma & access to resources

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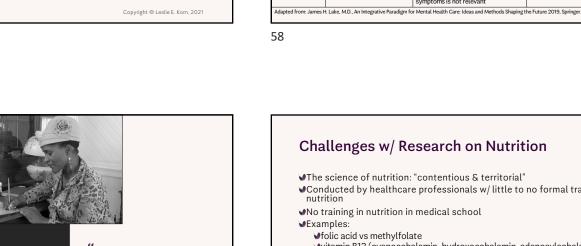
Thinking/Feeling/Being Integrative

- ⊌How do we as clinicians
 - ✓overcome compartmentalization

 - ●overcome social dissociation that a "pill" will make it go away
 - Just adding an herb or nutrient isn't integrative
 - **⊌**understand our own personalities as they intersect how we work
 - ✔overcome concerns about "acceptance", "proof", "evidence"
 - ▶experience our own healing as a path to help others
 - what sustains us for the long term?



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Zora Neale Hurston

Research is formalized curiosity. It is poking and prying with a purpose."

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How We Know About Symptoms: Evidence for their Existence, Causes, Meanings, & Properties Existence of symptoms | Verifications of causes of System of Verification of symptom properties symptoms Symptoms correspond to Causes of symptoms can be observed Observation by independent researchers Western or measured using established empirical methods causes that have material provide consistently reliable descriptions of (allopathic) properties of symptoms existence The cause or meanings of The causes or meanings of symptoms Patient interviews, laboratory studies, brain Biomedical symptoms are established kinds of neurobiological or can be inferred from empirical findings & are consistent w/ conventional scans, & other biomedical assessment findings adequately characterize the cause(s) psychiatry psychological mechanisms neurobiological or psychobiological or meaning(s) of symptoms Causal chains are inferred between observed or reported symptoms, & presumed neurobiological processes Non-Western The existence of symptoms Verification of the causes of Reliable empirical data are seldom available. is implicit in the "energetic," The non-Western practitioner infers or intuits symptoms is often impossible using system of or spiritual state of properties of symptoms in the context of the conventional empirical means, but medicine causes can be confirmed by parent system of medicine the person who experiences "energetic" or intuitive means regarded Empirical verification symptom properties is Empirical verification of as valid within the parent system of relevant Empirical verification of causes of symptoms is not relevant not relevant

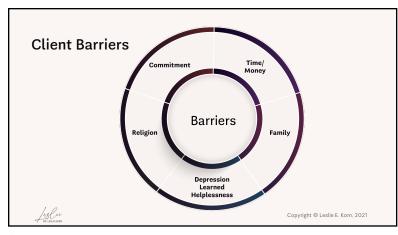
Challenges w/ Research on Nutrition

- ◆The science of nutrition: "contentious & territorial"
- **⊌**Conducted by healthcare professionals w/ little to no formal training in
- No training in nutrition in medical school
 - ✓ folic acid vs methylfolate

 - ⊌vitamin E, fish oil synthetic or broad spectrum
- ▶ Metabolic differences: some people need more magnesium some less

Vasquez & Pizzorno, 2019

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Modules in this Course ■ Ethics & Scope of Practice
 ■ Ethics & Ethics & Ethics & Ethics & Ethics
 ■ Ethics
 ■ Ethics & Ethics
 ■ Ethics
 ✓ Herbal Medicine ◆ Psychology of Trauma ▶ Detoxification & Hydrotherapy Strategies ✓ Trauma, Biology & the Body ♥ Exercise, Yoga, Breath, & Sound ✓ Culture & Identity ♥ Somatics, Bodywork, & Energy Therapies ♥ Circadian & Ultradian Rhythm & ▶ Nature & Human/Animal Bond ♥ Entheogens and Psychedelic Medicine ⊌ Bioindividuality, Digestion & Diet ♥ Spirituality, Post-Traumatic Growth, & ✓ Integrative Assessment, Tests & the Transformation of Trauma Evaluation ✓ Developing a Roadmap to Health ▶ Protocols in Action ✓ Nutritional Supplementation Copyright @ Leslie E. Korn, 2021



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