# Nutrition & Integrative Medicine for Diabetes, Cognitive Decline & Alzheimer's Disease

Leslie Korn, PhD, MPH, LMHC, ACS, RPP, NTP, NCBTMB

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#### MODULE 1

Introduction to Integrative Medicine & Nutrition for Diabetes & Alzheimer's

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### **My Story**

My Training

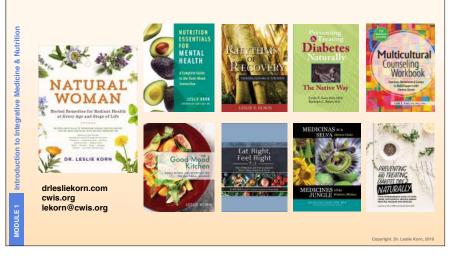
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- Mexican Jungle
- School of Public
- HUD & MHFA
- Indigenous communities in US & Canada
- Private practice
- Training clinicians
- My non profit nutrients for natives
- We are our own laboratories,
- · We are role models





# Focus of this Training

- Overview of the dis-ease processes
- Focus on Diabetes type 2, Cog decline & Alzheimer's
- Review diabetes type 1, gestational
- Principles that can be applied to many lifestyle issues that lead to chronic illness
- Review of conventional but focus on the emerging state of the art integrative methods for prevention, management & treatment
- Provide actionable interventions for clinical & clients

#### **Strong Focus on Nutritional Therapy**

- Address Cause of dis-ease/ imbalances
- Inflammation & oxidative stress
- Manage stress response
- Enhance mitochondrial function
- Balance Circadian rhythm
- Enhance neuronal communication
- Address Epigenetics

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 How foods & nutrients can alter gene expression



#### **Terms of Reference**

- Complementary/Alternative Medicine/Complementary & Integrative Health (NIH)
- If practice is used *together* w/ conventional medicine, it's "complementary"
- If a practice is used *in place* of conventional medicine, it's "alternative"

#### Naturopathy

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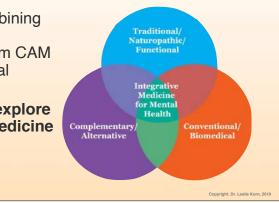
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- Licensed & Traditional
- Functional Medicine
- Functional Medicine is a system biology-based approach
- Root causes
  - Diabetes, (DT2), Alzheimer's (AD)

#### Integrative Medicine for Diabetes & AD

- Refers to combining practices & treatments from CAM w/ conventional medicine
- We will also explore Traditional medicine



#### **Traditional Medicine**

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• The sum total of the knowledge, skill, & practices based on the theories, beliefs, & 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 & mental illness

• World Health Organization



# Integrative Medicine for Diabetes & AD

- Whole body/mind approach
- Whole self assessment
- Interdisciplinary fields

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- Collaboration across disciplines
  Dietary interventions
- Reduce harmful medications
- Laboratory Analysis & Genomics
  Self care is key!
- Emphasizes the healing relationship
- Individual, group & family support



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### **Demographics**

- •1 in 11 Americans has diabetes
- Projected to keep rising
- Diabetes affects minority populations disproportionately
- 1 in 10 Americans over the age of 65 has Alzheimer's
- Between 2017 & 2025 every state is expected to see at least a 14% rise in the prevalence of Alzheimer's

#### **Clinical Applications**

- Nutritional & Integrative & CAM methods are ideal for addressing chronic illnesses
- Intersection of Diabetes, Depression, Self Care & Chronic Disease Management
- Assessments & Interventions to address root causes
- Opportunities to reverse, slow maintain health statusPain Management

Integrative Medicine for Diabetes & AD
Nutritional deficiencies
Effects of Drug on nutritional status
Anti-psychotic drugs & some antidepressants can cause metabolic syndrome
Statins depletes the body of coenzyme Q10 affects heart & energy
<ul> <li>Alternatives to pharmaceuticals or reducing dose w/ nutrition</li> </ul>
Reducing risk factors
Prevention, management & reversal
<ul> <li>Intersection of diabetes, AD &amp; mental health</li> </ul>
Caregiver health
Genomics
• Toxins
Culture & SES
Individualized treatment plans

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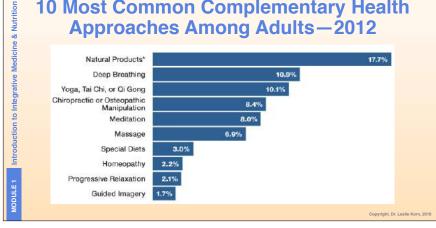
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Table 1: Prevalence of past-year CAM use by reason in older adults w/ diabetes, 2012 NHIS

Among CAM users w/ diabetes, :

	Treatment only	Wellness only	Both treatment & wellness	Total	P value
Alternative medical systems	8.5	14.8	7.7	10.2	0.272
Acupuncture	6.0	5.6	3.6	4.5	0.733
Ayurveda	0.0	0.0	0.0	0.0	-
Naturopathy	0.0	0.3	1.4	0.8	0.290
Homeopathy	1.7	8.7	3.5	4.8	0.096
Traditional Healers	0.8	1.0	0.0	0.5	0.278
Biologically based therapies	45.7	67.6	66.4	62.8	0.030
Chelation	0.0	0.0	0.0	0.0	-
Herbal therapies	45.7	67.6	66.4	62.8	0.030
Manipulate body therapies	53.3	27.2	36.9	36.8	0.015
Chiropractic	47.7	10.9	23.2	23.9	< 0.001
Massage	7.1	17.4	15.8	14.7	0.202
Movement therapies	0.0	1.2	0.4	0.6	0.558
Mind-body therapies	6.6	10.6	14.2	11.6	0.365
Meditation	0.5	2.5	5.0	3.3	0.046

### **10 Most Common Complementary Health** Approaches Among Adults – 2012



## **Use of CAM & Integrative Approaches**

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•People w/ diabetes type 2 & cognitive decline use integrative medicine methods •Same rate as the whole population



- Dementia/Alzheimer's is now called Diabetes Type 3
- · Similar risks & exposures lead to similar results
- Diabetes is a risk factor for dementia

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• 1 in 10 Americans over the age of 65 has Alzheimer's

• Alzheimer's = 60%–80% of all dementia cases

• 14% rise in cases by 2027 • Hyperglycemia, stress, genetics all play a role

# **Similar Risk Factors**

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- · Diabetes type 2, cognitive decline & Alzheimer's
- Similar risk factors for diabetes type 2 & dementia
- · Similar Integrative approaches to prevention, management & treatment
- KEY: Interventions are tailored to the individual, at each stage, not the disease per se

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#### **Integrative & Nutritional Methods**

- Mind Body Assessment
- Diet, Nutrients, Herbs, Glandulars
- Bioindividual Nutrition
- Biological Rhythms
- Culture & Ethnicity
- Bio-Identical Hormones
- Neurotransmitters/Amino acids
- Acupuncture, Electro-medicine
- Massage & Bodywork therapies
- Exercise & Yoga anaerobic

Detoxification strategies

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- Psychology of Health
- Spirituality
- Altered States
- Drug-Nutrient-Herb Interactions
- Testing & Labs
- Adherence
- Resources
- Hydrotherapies



# **Optimal Therapeutic Results**

- Moving toward personalized medicine
- Moving toward multifactorial treatment
- · Integrate understanding of how the mind/body works together
- Enhance hope for improvement
- Help your client make simple dietary changes incorporating the principles of "substitutions"
- Educate your client about their psychobiological rhythms & methods to regulate them
- Improved sleep & reduce stress

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Introduction to Integrative

 Help your client to get their body moving; w/o it there are limits on well being

Stress ➤ inflammation ➤ diabetes ➤ depression ➤ pain ➤ isolation ➤ self medication ➤ poor compliance

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#### **Principles of Effective Treatment**

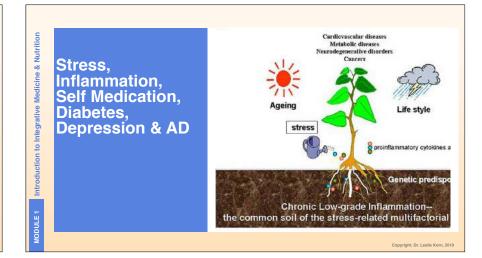
- · Isomorphic to the individual's belief system
- Biochemical individuality
- · Identify the substitutions for self medicating behaviors
- Do what will effect change first
- Plan for the obstacles
- Identify adherence strategies
- Engage self care/overcome learned helplessness

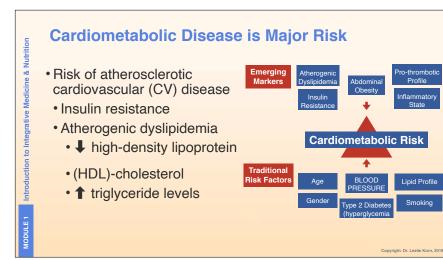
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Identify & engage Social Supports

#### **Diabetes is a Disease of Modern Life**

- A disease of food insecurity
- Poor food quality lack of access
- Poverty & sedentism
- It begins w/ chronic stress





#### Integrative Medicine & Nutrition The Microbiome, Diabetes & **Dementia** Increased permeability 9 Introduction Larg **Dysbiosis & Insulin resistance** ntestine Lower levels of good bacteria t levels of "bad" bacteria in Siamo patients w/ dementia Anus Rectum Copyright. Dr. Leslie Korn, 2019

# Anticholinergic Drug Exposure & The Risk of Dementia

#### Statistically significant associations of dementia risk

- Nearly 50% increase odds
- Anticholinergic antidepressants
- Antiparkinson drugs

Nutrition

- Antipsychotic drugs
- Bladder antimuscarinics, & antiepileptic drugs
- · Equivalent of daily use for 3 years

#### Long-term use of metformin

- · Doubles the risk for Alzheimer's & Parkinson's
- · Anesthetic agents are also associated w/ increased dementia risk

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# Principles of Restoring Health

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The following principles are from the course PDF book useful for you & to support your clients/ patients

#### PREVENTING AND TREATING DIABETES TYPE 2 NATURALLY VOUR COMPREMENSIVE GUIDE TO FOOD, HERBS, SUPPLEMENTS, RECIPES, ENERGY HEDICINE, MASSAGE AND EXERCISE

Leslie Korn, PhD., MPH and Rudolph Ryser PhD.

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# **Principles for Restoring Health**

#### Holistic

• Diabetes & AD: complex health problem that can be prevented, managed & in some cases reversed through holistic & integrative methods

#### Social

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 Addressing the health symptoms of diabetes must also address the social symptoms in communities

#### **Principles for Restoring Health**

• Trauma

 Resolve the cultural & nutritional trauma that has contributed to chronic disease

Environment

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- All the world's cultures have resources for healing on their environment
- Nature works slowly, but surely
- Nature will take longer than synthetic approaches but will have a more lasting effect

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### **Principles for Restoring Health**

#### Live Food

- Food is alive / dead
- •Only live food nourishes health

#### Food is Medicine

• Medicine, nourishment or poison; know the difference

# **Principles for Restoring Health**

#### Genetic Heritage

- There is no one right diet for everyone
- Diet must be based on the individual's cultural & genetic heritage

#### Relax

• Relaxation & stress reduction ↓ blood glucose levels

# **Principles for Restoring Health**

#### Be Positive

- Behavioral change
- · Add positive activities (habits) first
- Then eliminate negative habits (activities)

### •Get Wild

•Use wild, freshly prepared foods

# **Principles for Restoring Health**

#### Alternatives

- Use foods, herbs, vitamins, nutrients, homeopathics, & glandulars
- Pharmaceuticals only as a last resort & after trying every alternative

#### Proactive

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• To create change in the community, do not challenge the institutions; create the demand for change within the community

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- This will change the institutions
- · If the institutions don't change, create your own

# **Principles for Restoring Health**

# Teamwork

- •Find a few good people
- •Health team members
- Ensure collaboration

# **Principles for Restoring Health**

- Water heals
- Ice reduces pain & inflammation
- Heat soothes & relaxes
- Warm baths w/ sea salt & baking soda reduces toxicity
- Warm (not hot) foots baths relieve a headache
- Applied ice to the middle of the back improves respiration
- Cold showers lift the spirits & quell anxiety

# **Principles for Restoring Health**

#### Healing

- · Learn to touch, for healing
- Seek out trained touch therapists
- Touch heals at all stages of life

#### Bitter for the liver

- Liver loves bitter plants & foods
- Bitter plants w/ each meal

### **Principles for Restoring Health**

#### • Move

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- Aim for 1 hour of exercise 6 days a week
- Walking, biking, weights & balancing exercises

#### Rays of light

- Sit in the sun for 15 minutes a day
- Reduce the use of sunglasses
- Full Spectrum Light & bulbs for the winter months

### **Principles for Restoring Health**

- Culture & Traditional Medicines
- Ways of healing passed from one generation to the next, among families & healers
- •Based on indigenous, practical, observational arts & science
- Medicinal plants, animals, foods, the elements, rituals, spirit ways & touch

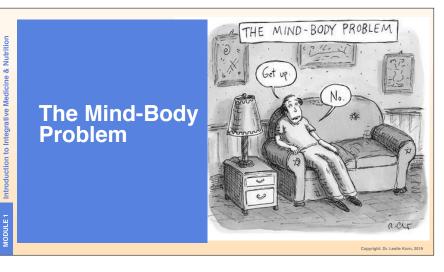
# **A Few Clinical Goals**

- Reduce, stabilize & control blood glucose levels throughout the day
- Enhance insulin function
- Reduce arterial & venous inflammation
- Improve arterial strength
- Improve circulation to extremities & the brain
- Reduce pain
- Reduce & manage stress & depression
- Stabilize stress hormones
- Enhance endogenous hormones
- Improve vision
- · Increase mitochondrial energy to support increased physical activity

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# You Will Learn Evidence-based research & clinical skills & tools to support patients & their families Culture specific tools to help patients restore good dietary habits Enhance adherence to self-care practice Lower medication intake Diabetes is also a Psychological Disease Depressing Stress worsens self care & program compliance Understanding diabetes & mental health is essential

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# Motivating for Change, Adhering to the Program

#### Methods

• CBT

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- Motivational Interviewing
- Stage based prevention management & treatment
- Teams & Health Coaching
- Telehealth
- Set Goals & Priorities
- Engage family, friends, social groups
- Enhance pleasure
- Conduct mind body groups

# **Opportunities to Develop a Niche Practice**

- Individuals, Families
- Communities & Schools
- Clinical care in every disease category
- Collaborative
- Culturally competent care
- Integrative private practices
- Health Agencies & Managed Care

- Non Profit Agencies
- Insurance coverage
- Research
- Public Health
- International Work

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