Introduction to Functional Medicine

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Disclosures

- None
Overview

• What is functional medicine?
• Evidence that supports a functional approach to chronic disease management
• Simple ways to start integrating functional medicine into a busy practice
• Opportunities for further learning
FUNCTIONAL MEDICINE

A systems-oriented, patient-centered approach that aims to address the underlying causes of chronic disease, and that engages both the patient and practitioner in a therapeutic partnership.
In 2008 the US spent 16.2% of its GDP ($2.3 trillion) on Healthcare.

More than national defense, homeland security, education, and welfare...combined.

133 million Americans live with at least one chronic disease...
Heart Disease: 81 million people
Cancer: 11 million people
Depression: 1 in 20 Americans >12 years of age
Diabetes: One in every 3 children born today will develop diabetes during their lifetime

75% of all healthcare costs are due to chronic conditions
The root cause of chronic disease

- Primary driver is the interaction of:
  - Genes
  - Lifestyle
  - Environment

- The greatest health threats now arise from how we *live, work, eat, play, and move.*
Current Paradigm

• A specialist for every organ system, and “a pill for every ill”
  • Psychiatrist, pulmonologist, allergist, neurologist, and gastroenterologist

• “Name it, blame it, tame it”

• Lifestyle/environmental inputs not consistently addressed

• Akin to pouring water on the fire from the front, while pouring gasoline on the fire from behind
Functional Medicine Paradigm

- Patient-centered, rather than disease-centered
- Acknowledge biochemical diversity and individuality
- Address genetic, lifestyle, and environmental determinants of health
- Health as a positive vitality, not simply the absence of disease
THE FUNCTIONAL MEDICINE TREE

Organ System Diagnosis

Cardiology
Pulmonary
Endocrinology
Gastroenterology
Neurology
Immunology
Hepatology
Urology

Signs and Symptoms

The Fundamental Organizing Systems and Core Clinical Imbalances

Assimilation
Organs, Adipose, Microbiota, Secretions
Defense and Repair
Immune system, inflammatory, biochemical, infection and microbes
Energy
Endocrine, Neurotransmitters, Immune
Transport
Cardiovascular, lymphatic systems
Structural Integrity
Genetic Predisposition
Experiences, Attitudes, Beliefs

Antecedents, Triggers, and Mediators

Mental, Emotional, Spiritual Influences
Genetic Predisposition
Environmental Pollutants
Sleep & Relaxation
Exercise/Movement
Nutrition/Hydration
Stress/Resilience
Relationships/Networks
Trauma
Microorganisms

Personalizing Lifestyle and Environmental Factors

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Antecedents, Triggers, and Mediators

- Nutrition
- Sedentary Lifestyle
- Chronic Stress
- Poverty/Uninsured
- Environmental Toxicity
- Fragmented families and communities
- Indoor Living
- Aging Population

Chronic Disease
Organizing the patient's story: 
Antecedents, Triggers, and Mediators (ATMs)

- **Antecedents** are factors, genetic or acquired, that predispose an individual to an illness or pattern of disease.

- **Triggers** are factors that provoke the symptoms and signs of illness.

- **Mediators** are factors, biochemical or psychosocial, that contribute to ongoing pathological changes and dysfunctional responses.
One Condition: Many Imbalances

- Inflammation
- Hormones
- Genetics and Epigenetics
- Diet and Exercise
- Mood Disorders

One Imbalance: Many Conditions

- Obesity
  - Inflammation
    - Heart Disease
    - Depression
    - Arthritis
    - Cancer
    - Diabetes
Two Questions:

• Does this person need to be RID of something (toxic, allergic, infectious, poor diet, stress)?

• Does this person need to GET something – an unmet individual need required for optimal function (nutritional deficiency)?
Seeking the root cause: what to RID and GET

• RID the 5 most common causes of illness:
  • Poor nutrition, allergens, infections, toxins, and stress

• GET
  • Nutritious food, balanced hormones, clean environment (air, light, water), regular movement, love, meaning
Evidence for functional medicine

- Evidence base supporting the benefits of:
  - Nutrition
  - Exercise
  - Stress management
  - Detoxification
  - Mind/Body techniques
  - Manual Medicine
  - Acupuncture
Evidence for functional medicine

• Autoimmune disease
  – Often not diagnosed until multiple symptom and laboratory criteria are met
  – Many patients begin experiencing symptoms 5 or more years before diagnosis
  – Triad of factors leading to autoimmunity (Fasano 2011)
    – Genetic susceptibility
    – Molecular bio-mimicry
    – Increased intestinal permeability
Functional Medicine in Practice

- Expanded H&P focusing on lifestyle and environmental inputs
- Determination of antecedents, triggers, and mediators
- Targeted lab testing
- Multi-factorial intervention(s) personalized for the patient
Seven organizing systems

- Assimilation (e.g., digestion, absorption, microbiota/gi, respiration)
- Defense and repair (e.g., immune, inflammation, infection/microbiota)
- Energy (e.g., energy regulation, mitochondrial function)
- Biotransformation and elimination (e.g., toxicity, detoxification)
- Transport (e.g., cardiovascular, lymphatic system)
- Communication (e.g., endocrine, neurotransmitters, immune messengers)
- Structural integrity (e.g., from subcellular membranes to musculoskeletal structure)
What to do on Monday morning?
• Ask:
  “When was the last time you felt well?”
  (look for triggers/mediators)
• **Ask about lifestyle**
  - Diet, movement, stress, sleep, relationships
  - Have the patient keep a symptom diary
Exercise and Staying in Motion...
Fight and Flight
Healthy Relationships
Think about:
- What is the root cause driving this patient’s chronic illness?
- Could poor nutrition, allergens, lack of movement, infections, lack of sleep, toxins, and/or stress be contributing?
Take more time…if possible

• Bill for time
• Prolonged service codes when applicable (99354, 99355)
• More frequent visits when actively addressing lifestyle issues
Next Steps…

functionalmedicine.org/FreeCourse