Functional Medicine:

A Root-Cause Approach to Personalized Health Care

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Nothing to disclose





Jennifer McCord, MD, IFMCP

- Board Certified in Family Medicine
- Primary care physician 2004-2019 at Hampton Family Practice
- Institute for Functional Medicine Certified Practitioner since 2018
- Trained in Dr. Dale Bredesen's ReCODE program (focuses on preventing and reversing cognitive decline using a functional medicine approach)
- Founder—Jennifer McCord, MD, PLLC, Functional Medicine practice located at Pointe Wellness Center, Newport News, VA



Objectives

- Identify principles underlying functional medicine
- Explore tools used by a functional medicine practitioner
- Compare and contrast the differences between the "systems approach" in conventional vs functional medicine
- Apply a root-cause approach to personalized health care by reviewing some case studies



Case of A.Y.

49 yr old female presented with fibromyalgia, IBS, GERD, RA, dyspnea, edema, rashes, dry eyes, RLS, fatigue, headaches, ADHD, weight gain, food allergies

- She had seen multiple specialists over years, including rheumatologists, GI, ENT.
- Flares of her condition included burning and tingling in her legs, progressing to swelling and pain "all over."
- She went to Disney World with her family a month prior to her initial appointment and had to use a wheelchair. She had "given up" on getting better.



Applying a Functional Medicine approach





What is Functional Medicine?

 Functional Medicine is a sciencebased personalized healthcare approach that assesses and treats underlying causes of illness through individually tailored therapies to restore health and improve function.



What is Functional Medicine?

Asks **why** rather than **what**...



What is Functional Medicine?

- Personalized
- Predictive
- Preventive
- Participatory



Timeline



Matrix



What does this person need to get rid of?

- Toxins
- Allergens
- Microbes
- Stress
- Relationship
- Job



What does this person need in order to heal?

- Foods (fats, protein, carbohydrates, fiber)
- Vitamins, minerals, other nutrients, hormones
- Light, water, air
- Movement
- Love, community, connection
- Meaning/purpose



Functional Medicine Tools

- Lifestyle: Nutrition/Diet, Exercise, Stress, Sleep
- Nutrients/supplements
- Testing
- Other practitioners/modalities
- Medication





Case of A.Y.

49 yr old RN presented with fibromyalgia, IBS, GERD, RA, dyspnea, edema, rashes, dry eyes, RLS, fatigue, headaches, ADD, weight gain, food allergies

- She had seen multiple specialists, including rheumatologists, GI, ENT.
- Flares of her condition included burning and tingling in her legs, progressing to swelling and pain "all over."
- She went to Disney World with her family a month prior to her initial appointment and had to use a wheelchair. She had "given up" on getting better.



Initial plan:

- Elimination diet (Whole 30)
- Comprehensive GI testing (GI Map)
- Basic supplements: magnesium malate vitamin D/K omega-3 quercetin
 - S boulardii (probiotic)



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AY started the elimination diet and several of the recommended supplements and initially felt worse as her body adjusted. After 10 days on the elimination diet, however, AY sent a message saying "I cannot express in words how I feel. All of my swelling is gone, 75% of the pain is gone, and I feel 10 years younger. Wow." She lost 20 lbs in about 4 weeks, her joint pain, breathing issues, bowel symptoms, rashes, restless legs, headaches, fatigue were all resolved after 2 weeks on the elimination diet. She was able to go out with her family, walking and participating in activities she hadn't been able to engage in for years.



Helpful things for AY:

- Avoiding dairy and sugar
- Eating blueberries, apples, persimmons
- Walking
- Sleep
- Enjoying time with family
- Vitamin D/K, omega-3, quercetin, and magnesium
- "Hope anchors the soul"



Pearl: Food is Medicine





Case of J.P.

- 7 year old boy seen for ADHD, possible autism, ODD
- Bio mom and dad with drug addiction, abuse
- Foster care until $2\frac{1}{2}$ and then adopted.
- Sleep issues (trouble falling and staying asleep, night terrors), attention issues, hyperactivity, and behaviors (aggression and defiance)
- On multiple meds including clonidine, aripiprazole, and dexmethylphenidate ER. Prior attempts to wean meds resulted in hospitalization for severe behavioral disturbances.



Home schooled. Significant problems with focus on school work, having tantrums. Unable to have relationships and play with other children due to behavior issues.

Prior to his initial visit, JP had started neurofeedback at UVA and was experiencing improvement. His mom had been able to wean him off sertraline and guanfacine, but she was told that the remaining meds were keeping the technology from being fully effective. Her goal was to continue neurofeedback and have JP wean off his other meds while also looking into the root causes of his neurologic conditions.



Initial Plan:

- Magnesium, omega-3, Vitamin D, L-theanine, CBD, and Focus supplement
- Eliminate gluten, dairy, sugar, artificial colors, sweeteners and other additives
- Daily routine
- Family and teacher support
- Organic Acids Testing, Hair Metals Testing



At follow up 1 month later:

- JP was sleeping better with the magnesium, L-theanine.
- He was able to wean off his clonidine without significant sleep disruption.
- His mom had been able to reduce the dose of his ADHD medication as well. With the supplements and the neurofeedback he was able to calm down more quickly.
- OAT testing showed a yeast overgrowth in the gut, which was treated with nystatin. Other findings prompted adding a multimineral and a probiotic (S boulardii)
- Due to increase in allergy symptoms, JP was started on a natural antihistamine for children.



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At follow up 6 weeks later:

- JP had weaned off his aripiprazole with much less drama than previously.
- Allergy symptoms had resolved.
- His energy levels and moods were more stable.
- His sleep was good without supplements
- JP's personality was finally "coming through" now that he was off most of his meds. He remained on a low dose of ADHD medication.



Last follow up (about 8 months after the initial visit)

- Off all meds
- Finishing with neurofeedback
- Started Brain Balance
- Sleeping well, on a few supplements, but had stopped some because they were no longer needed.
- Started a microschool and is able to play with other children and make friends. He demonstrates an increased sense of empathy. His reading is improving.
- His family had taken a trip together and it went really well.



Pearl: People have the ability to heal, as long as you can remove impediments and fill in the holes





Case of S.M.

14 yr old girl seen 4/6/21 for "seizures," tics, postnasal drip, "depression", and headaches starting gradually 3/2020 and progressively worsening over the past year. She was previously healthy.

Family history of Hashimoto's (mother and both maternal grandparents) and Graves' disease (father) as well as seizures (father)

She had pneumonia 11/19 treated with abx and steroids She had a flu-like respiratory illness in Feb 2020



In March of 2020 she developed twitching of her L eye, which progressed gradually over the next year to whole body tics, vocal tics, feelings of sadness that would come and go, and headaches. She had a workup with pediatric neurology (EEG, MRI) that was negative. She was started on sertraline and began seeing a counselor, as her symptoms were thought to be psychiatric.

In March 2021 (3 weeks before her initial visit) she had to be woken up for school (unusual for her). When she was in art class later in the day, she felt an overwhelming weakness and kept collapsing onto her desk. She couldn't walk. Was having convulsions but was conscious during them--whole body jerking. She couldn't speak and couldn't open her L eye.



The family history of autoimmunity, the neuropsychiatric symptoms, and the respiratory illness (possibly COVID) trigger led to my suspicion of PANS (Pediatric Acute-onset Neuropsychiatric Syndrome), despite a less acute onset and an older age of the individual than is typical.

Plan:

- High dose cephalexin
- Eliminate gluten
- B complex, Vitamin D, magnesium, DHA, S boulardii, Vitamin B12
- Thyroid testing



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At follow up 2 months later, SM was taking cephalexin and all the supplements, and was eating a (mostly) gluten-free diet. Thyroid testing was negative (including antibodies).

Her tics were much better.

Her mood was good; no episodes of sadness; she was still on sertraline but didn't feel the need for counseling.

She had 1 seizure-like episode when she had skipped her supplements for a few days.

When she ate gluten she had some stomach issues but no increase in her neurologic symptoms.



Over the next few months SM was able to wean off her sertraline, stop the cephalexin, and reduce her supplements. She made a complete recovery from her illness.





Pearl: A personalized approach requires looking more deeply into the patient's history and thinking outside of "typical" presentations





Functional Medicine provides:

- Hope
- Time to listen
- Additional tools
- Joy in practice
- Empowerment



Questions?





Contact information:

- Jennifer McCord, MD, IFMCP
- info@jennifermccordmd.com
- 757-204-5372



