WELCOME to the

Pediatric Integrative Medicine ECHO: Changing Health Care for Children
Series Learning Objectives

Participants will be able to

• Explain the importance of a health-based, integrative approach to care of the whole person and motivate patients to become active and informed partners in their care

• Articulate evidence and indications for use of diverse integrative, health-based therapies in patient care in different contexts, including: mind-body approaches, nutrition, movement and manual therapies, botanicals and supplements, acupuncture, and other integrative approaches

• Strategically and effectively implement health-based, integrative approaches into the care of patients to nurture wellness and address existing health conditions
Table of Contents

- **Session 1, Introduction to Integrative Care**
- **Session 2, Motivational Interviewing**
- **Session 3, Nutrition/Food in our Health**
- **Session 4, Movement in our Health**
- **Session 5, Mind Body Therapies**
- **Session 6, Botanical Boot Camp**
- **Session 7, Acupuncture**
- **Session 8, Manual Medicine**
- **Session 9, Anxiety/Depression**
- **Session 10, Sleep Disturbances**
- **Session 11, Chronic Pain**
- **Session 12, Developmental Pediatrics**
- **Session 13, Heme/Onc**
- **Session 14, GI**
- **Session 15, Neuro**
- **Session 16, Cardiology**
- **Session 17, Rheum**
- **Session 18, Endocrine**
- **Session 19, Pulmonary**
- **Session 20, How to Address Controversial Topics**
Pediatric Integrative Medicine
How do we Heal our children?

Matthew Hand DO
Section Chief, Pediatric Nephrology and Integrative Medicine
Children’s Hospital at Dartmouth/Dartmouth Health, Children’s
Disclosures

Medical Advisor Davinci Labs/FoodScience
IM/CAM in Pediatrics

- **Goals**
  - What is IM/CAM
  - Prevalence/Epidemiology
  - Things that I get called about/Cases
  - IM “tools for your tool box” for all practitioners
  - Our primary concept: All patients have more wellness than disease. Promote disease, decrease illness.
  - Giving control back to the patient
  - Finding balance in medicine: Principle of Yin/Yang
Thoughts

- Healing vs. curing
- Is there research?
- Crossover in modalities
- Not clearly toward the disease but more the experiences/life of the patient (sleep, wellness, anxiety etc)
- Many names, many tools, don't get frustrated
- Opening the mind
- You can't go back
- "this isn't complementary and alternative medicine, it is just good medicine"

3 BIG concepts: Inflammation, Upregulation, Neuroplasticity
What is IM

- Broad Categories
  - **Conventional Med**
  - Nutrition/Diet
  - Exercise/Physical Activity
  - Whole systems (TCM, Ayurveda, Naturopathy, Homeopathy)
  - Botanical med
  - Energy Medicine (Reiki, Healing touch, Qi Gong etc)
  - Supplements
  - Spirituality
  - Manual Medicine (OMM, Chiropractic, Massage, PT, Zero balancing, reflexology etc)
  - Mind-Body Medicine (Hypnosis, Biofeedback, Guided imagery, Creative therapy etc)
In the US, (1997) ~1/3 of all adults use CAM

- Visits to CAM providers
  - 1990: 420 million, 1997: 629 million (up by 47%)
  - 1997 estimated 21.2 billion dollars ~12 billion out of pocket
  - 2007 14 Billion spent out of pocket to treat pain, 33.9 total out of pocket for all issues (NIH)
  - 2015 40 Billion dollars spent on botanicals and supplements alone

- More recent estimates ~40-62% adults using CAM (40% NIH)
  - Higher levels of education and economic status
In Children: ~12-30% of healthy children seen in outpatient clinics use CAM (NIH, Kemper)

>50% of children with chronic, recurrent or incurable illness use CAM

ALMOST ALL STILL CONTINUE WITH WESTERN TREATMENTS!

Prior study in early 2000’s, <20% pediatricians felt they had IM knowledge >70% wanted more info.

For specific conditions:

- For Asthma: 33-89% pediatric patients using CAM to some degree.
- For GI issues, studies with >50% of all patients using some form of CAM.
Zealots and the extremes
- Ex: Vaccines, Chelation, Alternative labs, ?DAN. How do we find the balance?
- Our own people creating a divide.

Research:
- Incorporating other scientific models into our Western scientific thoughts. Ex: TCM, Ayurveda, Homeopathy. Possibly more complexity than reduction model
- Outcomes studies: Ex Ulcerative Colitis-Western vs Integrative GI, what are the outcomes
- Acceptance in mainstream Journals

Supplements/Herbs
- Regulation, consistency, contamination, adulteration
Education:
- Clearly needed given patient demands
- Consistency, accuracy, availability
- Payment

Licensing of practitioners
- Commonly state regulated
- Who do you trust

Pediatrics
- Dosing
- Safety
- Research
So What Is The (My) Goal?

- Create a true wellness based health system that incorporates all healing modalities
- How do we get there
  - Cultural shift
  - Education of health care providers (everyone in the system)
  - Education of students/residents/fellows
  - Deliverable to all regardless of pay: ex. Evaluation of supplements, community acupuncture, covered manual therapies etc
  - Sustainability/Marketability
  - Using local networks (vetting practices- costs/peds/licenses etc)
“Value in volume system”
- Creating educational program to improve each visit
- Throughout the whole health care system (inpatient, outpatient, radiology, ER etc). Can no longer be in silo
  - Ex: OMT in inpatient unit (NAS babies/Newborn/NICU, Acupuncture inpatient for children, Pet therapy, Mind body treatments, music therapy etc)
- Greening the hospital
- Healing environments
- Creating a health model for the nation-really doing it!
- And MORE!
Course Plan

- Give the participants the tools to understand all the principles of Integrative care
- Give the participants deliverables to take back to their practice no matter where you work or what you do.
- Start with modalities (IE food, movement, motivational interviewing, TCM, botanical bootcamp etc) that will fom the base to develop on.
- Followed by programs targeting specific for both primary care and subspecialties based on what each program has asked for.
- Lots of overlap!
- Cases each week can be anything that people are interested in so PRESENT ONE!
- Very important: We are reaching across the whole system and need to know anyone or program that we can incorporate under our umbrella including community programs. Please speak up!!
- In the end want to have essentially a practical, deliverable program that people feel trained and can bring the techniques throughout the DH system.
In ancient times, people lived holistic lives. They didn’t overemphasize the intellect, but integrated mind, body, and spirit in all things. This allowed them to become masters of knowledge rather than victims of concepts. If a new invention appeared, they looked for the troubles it might cause as well as the shortcuts it offered. They valued old ways that had been proven effective, and they valued new ways if they could be proven effective. If you want to stop being confused, then emulate these ancient folk: join your body, mind, and spirit in all you do. Choose food, clothing, and shelter that accords with nature. Rely on your own body for transportation. Allow your work and your recreation to be one and the same. Do exercise that develops your whole being and not just your body. Listen to music that bridges the three spheres of your being. Choose leaders for their virtue rather than their wealth or power. Serve others and cultivate yourself simultaneously. Understand that true growth comes from meeting and solving the problems of life in a way that is harmonizing to yourself and to others. If you can follow these simple old ways, you will be continually renewed.

Lao Tzu, *Hua Hu Ching*
WELCOME to the

Pediatric Integrative Medicine ECHO: Changing Health Care for Children

Session 2, Motivational Interviewing, June 15 2023

Please let us know you are here: Type your name, email, organization into CHAT
Today’s Program

• Brief housekeeping
• Didactic: Motivational Interviewing – Catherine Schuman
• Case presentation – Megan McMahon Martel
• Role Play – Catherine Schuman, Andy Wegman
• Summary
• Up Next
Motivational Interviewing
Helping People Improve their Diabetes Self-Care

Catherine Schuman, Ph.D.
Family Medicine Residency
Cheshire Medical Center
Training Objectives

- Understand the basics of MI
- Strengthen your ability to elicit change talk and commitment language
- Learn communication techniques that encourage medication/treatment adherence
Medication Adherence Facts

- Medication nonadherence is prevalent: 3 out of 4 Americans report not taking medications as directed

- For every 100 prescriptions written, 50 to 70 make it to the pharmacy, and 48 to 66 are filled and leave the pharmacy. Of those in patients’ possession, 25 to 30 are taken properly, and only 15 to 20 are refilled as prescribed (1)

- Adherence problems are more prevalent when regimens are time consuming, complicated, make the disease visible or offer no ‘perceived’ immediate benefits (2)

- Medication nonadherence results in a 33% to 69% increase in medication-related hospitalizations, 89,000 to 125,000 premature medicine-related deaths, and an additional $2,000 per patient in medical costs and medical provider visits. All are preventable; however, until prevention is achieved, direct and indirect health care costs will increase annually by $300 billion (3,4)
The Facts

• 40-80% medical information given forgotten immediately; half retained is incorrect

• Physicians thought 89% of patients understood medication side effects, only 57% of patients understood


MI and Good Communication

• Results of a meta-analysis focusing on communicating with patients about medication adherence found a 19% increase in nonadherence among patients whose health care provider communicated poorly (5)
Teach-Back Method

• Method to confirm patients understand their medication/treatment:
  – “Tell me why you need this medication”
  – “Tell me how you take this medication”

• Teach Back not a test of patients’ knowledge
• Is a test of how well we explain something

Why Don’t People Do What We Tell Them to Do?

- They don’t understand – poor provider communication or low health literacy
- Reactance – When freedoms drift away people reach out to hold onto them tightly
- Ambivalence – Our internal committee
- Costs a lot to change - Even those at goal struggle constantly
- Depression, substance use, mental health or cognitive issues
- Finances – Monitoring supplies and medication are not cheap
- Dependence – don’t want to be addicted to something
- What other concerns have you heard?
Do We Sometimes Inhibit Change?

• Discord (arguing for change)

• The Righting Reflex (instilling change)
  – Working persuasively without permission
  – Working harder then the patient, in an attempt to “install change”
The RIGHTING REFLEX often fails because:

• STATUS QUO is perceived as easier, change is hard work
• AMBIVALENCE is unresolved and the patient has concerns about success
• There is a cost to making changes
Remember: IN CONVERSATIONS WITH PATIENTS THE MOST INFLUENTIAL AND PERSUASIVE VOICE IS WITHIN THE PERSON YOU’RE SEEING
MI is a style of practice:

“MI is a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion.”

Empathy

• MI begins with open-ended questions, and ideally come from a place of genuine interest in the patient’s situation

• Goal is to normalize talking about why someone isn’t taking their meds so that they feel comfortable opening up to you about this

  “I wanted to talk to you today about your DM meds and how you feel about taking them. I’ve worked with a lot of patients who struggle with taking meds every day, and I know it can be a really difficult thing to do. Some of my patients struggle with remembering to take the pills/injections, or they don’t like how it feels to have to take something everyday. What’s it like for you?”
Developing Discrepancy

• **Goal is to increase the reasons for making a change from the patient’s point of view**
• Ideally, the question & answer exchange will answer: How does **not** taking your meds as prescribed fit into your greater value system?
• Accomplished by asking specific types of questions, and by using reflective listening
Developing Discrepancy

• What types of questions should I be asking?
  - Open ended
  - Ask for pros/cons of not taking meds
  - Ask for elaboration and/or examples
  - What happens if things continue as they are?
  - What would be different if you took your meds?
  - Explicitly side with the negative aspects of making a change
Sail along with Sustain Talk

• Come from a place that understands that resistance to change is completely normal, and not rooted in pathology or denial

• Based on the principle that efforts to push someone to change often result in an equal or greater push back to not make that same change
Supporting Self-Efficacy

• Patients can feel that making change is not possible for them, either because they have failed in the past, or because they don’t see another way to do things

• By highlighting genuine strengths, MI can rekindle interest in making an attempt and change, and can allow the patient to think differently about themselves and the likelihood of their success
MI works best when you hold back on telling the patient why he/she needs to change, no matter how difficult this may be to do.

The patient needs to develop his/her own reasons & motivations for changing.

MI is a process, and many patients may be very reluctant to consider any change at all - This does not mean that your MI techniques are not worth continuing.

MI does not have to take a huge amount of time.
Where MI Fits In

Diabetes Management

Not Managed

Managed Well

Implement use of MI skills

Approach:
- MI Spirit
- Evocation
- Autonomy
- Collaboration

Techniques:
- Open-ended questions
- Affirmations
- Reflections
- Summary

Framework:
- When educating/giving advice:
  - Elicit
  - Provide
  - Elicit

Diabetes Management

Managed Well

[Flowchart diagram showing the relationship between different aspects of diabetes management and the implementation of MI skills]
Motivational Interviewing

Motivational interviewing is a client centered, guiding communication style for enhancing a person’s own motivation for change or behavioral activation.

“People don’t care how much you know until they know how much you care.”
- John Hanley
Listening in MI

• Change Talk: “I want to lose weight.”

• Activated Change Talk – or Commitment Language: “I’m thinking about going to a gym so that I can get some activity. That might help me lose weight.”

• Sustain Talk: “I really enjoy eating. I’m not going to try again to lose weight. I’ve never been able to keep my lost weight off.”
MI SPIRIT

Principles

- Express Empathy
- Develop Discrepancy
- Adjust to resistance
- Support Self-Efficacy

Partnership | Autonomy
---|---
Compassion | Evocation
Core Skills: OARS

Open ended questions
Affirmations
Reflections
Summaries
Affirmations

• You see the benefit of nighttime blood glucose testing. It helps you avoid lows at night
• You worked hard to get into the habit of regular physical activity - You enjoy long walks and you’ve lost weight since starting it
Reflective Listening

- **Ready**
  - Reflect back all the reasons (pros) the Patient has stated

- **Unsure**
  - Reflect back what you hear (stating the cons before the pros so that you end on the positive)
  - You have not taken either side of the internal argument but reflected back both sides
  - The patient sees his/her ambivalence and is not pressured to defend his/her stance.

- **Not Ready**
  - Reflect back that you hear the parent’s concerns and affirm that their concerns make sense in the context of how they are thinking
Reflections: Statements that evoke the patient’s ideas or perspectives

- Listen for change talk and use it in your reflections
- Listen to what is said rather than thinking about your next question
- What feelings does the person wind around the words?
- Levels of reflection:
  - Simple Reflection – Rephrase or repeat
  - Complex reflection – Paraphrase or add more than one idea
    - Can amplify by adding feeling/emotion
Types of Reflective Listening

Simple reflections are short statements that reflect the content or emotion of what the person said. You can choose which element or aspect to reflect back

- If patient said: I know you keep saying it is important to measure my blood sugar levels, but I’m just not sure it’s necessary…
- A reflection is: Even though you have been encouraged to monitor your blood sugar levels, you’re still unsure if it’s needed

Complex reflections go beyond what was said and offer a new perspective. There are several types of complex reflections:

- Amplified – the person’s statement is taken to the extreme
- Double-sided – reflects back the ambivalence or pros and cons
- Guessing the unexpressed – guess at what is underlying the statement
- Affective (feelings) – reflect back the feelings or emotions expressed
- Continuing the paragraph – the listener finishes the statement
- Metaphor – uses a metaphor to restate the person’s statement
Sustain Talk - Resistance

• Psychological Reactance (J.W. Brehm) – a motivational reaction that occurs when a person feels that their sense of freedom or personal choice is being threatened or the range of alternatives is being limited
Sustain Talk - Resistance

Common Cues to Resistance or Sustain Talk

• Arguing
• Interrupting
• Ignoring/not paying attention
• Crossing arms
• Being dismissive (“whatever!”)

MI-Adherent Response

• Slow down
• Come along side and try to understand
• Reflect what you hear
• Support autonomy – “I can’t make you monitor your blood sugar levels, and I wouldn’t want to. What I can do if you give me permission is share my view and provide any information that will be helpful to your decision. In the end, this is your decision.”
Information and Advice: 3 Kinds of Permission

• The person asks you for advice or info “Which option is best for you?”
• You ask permission to give advice or info: “Would it be helpful for me to suggest some choices?”
• You qualify the advice or info to emphasize autonomy “I can provide you with some ideas and you could decide what would work best for you.”
Offering Info or Advice When Risks are Great or When Approaching Sensitive Topics

• Ask permission, “May I speak with you about something important, something that could make you quite ill?”

• Express your concerns: “It’s important for you to know that skipping some of your insulin every day causes your blood glucose levels become uncontrolled. You could develop DKA and end up in the hospital. Some people with DKA die.

• Evoke further exploration of the topic: “I am interested in what you think about this.”
Elicit-Provide-Elicit

**Elicit**
- Ask parent what they already know or would like to know more about
- Ask permission to offer information

**Provide**
- Give information in a neutral, nonjudgmental fashion
- Avoid “I” and “You”

**Elicit**
- Gather parent’s understanding of the feedback provided
- Ask what else the patient would like to know
- Ask what they make of the information
I can hear that you are concerned about the impact of diabetes on your health. Well, that’s perfectly understandable. May I share some information that might ease some of your concerns?

“I’d love to know how this information resonate with you and if you feel like this has eased some of your concerns regarding the potential side effects.”

“Where do we go from here? Are you ready to move forward with managing DM?”
Role Play
MI Wrap UP
Questions ?
Resources


Additional Resources

WELCOME to the

Pediatric Integrative Medicine ECHO: Changing Health Care for Children

Session 3, Nutrition/Food in our Health, July 20 2023

Please let us know you are here: Type your name, email, organization into CHAT
Today’s Program

• Brief housekeeping
• Didactic: Nutrition/Food in our Health
  – Filomena Kersey, RDN, LD – Clinical Dietician
  – Kiah Williams, RDN, LD – Clinical Dietician
• Case Presentation
• Case Discussion
• Summary
• Up Next
Food For Health and The Science Behind It
Key Learning Objectives

• What uniquely qualifies a dietitian to help clients

• Nutrients to reduce inflammation

• Foods/dietary patterns that provide these nutrients

• Prevention and Intervention
A Dietitian’s Role

- Our unique training allows us to translate the science of nutritional biochemistry into practical application, meeting families where they are in that moment to educate and coach families in the implementation of nutritious food choices for them.

- The most challenging piece to this work is breaking through the misconception that the dietitian is there to judge choices.

- The reward is working with the patient and family – seeing them set and achieve their goals toward better health.
Questions we hope to answer:

• What are the best food choices?
• How do families even start, particularly when there are limits to both time and money?
• What intervention(s) is effective?
• How does a dietitian help with this dilemma?
• What resources are available?
Integrative & Functional Medical Nutrition Therapy

Includes personalized nutrition care which considers all aspects of the individual:

– Food, Lifestyle, and Environment
– Nutrition Physical Signs & Symptoms
– Biomarkers/genetics
– Metabolic Pathways and Systems
– Toxins
– Pathogens
– Allergens & Intolerances
– Stress
We are what we Eat!

The nutrients from foods are involved in all of these pathways.
Nutrients Involved in the metabolism and energy production

<table>
<thead>
<tr>
<th>Glutathione</th>
<th>Glutamine</th>
<th>Histidine</th>
<th>Proline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoleucine</td>
<td>Methionine</td>
<td>Tyrosine</td>
<td>Asparagine</td>
</tr>
<tr>
<td>Magnesium</td>
<td>Vitamin D3</td>
<td>Zinc</td>
<td>L-Carnitine</td>
</tr>
<tr>
<td>Vitamin B1</td>
<td>Vitamin B2</td>
<td>Vitamin B3 / NAD</td>
<td>Vitamin B5</td>
</tr>
<tr>
<td>Vitamin B6</td>
<td>Vitamin B12</td>
<td>Folic Acid</td>
<td>Water</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>Iron</td>
<td>Selenium</td>
<td>Alpha Lipoic Acid</td>
</tr>
</tbody>
</table>
Improving Nutrition is Important for the following conditions and more:

- ADHD
- Autism
- Cancer
- Cardiovascular disease
- Diabetes
- Inflammatory Bowel Disease
- Irritable Bowel Disease
- Juvenile Idiopathic Arthritis
- NAFLD
It Is Not Just About the Vitamins

Include more:
• High fiber foods
• Unsaturated fats
• Phytosterols
• Flavonoids
• Minerals/trace elements/electrolytes
• Exercise/Activity
It Is Not Just About the Vitamins

Include Less:

- Ultra processed foods
- Excess salt
- Added sugars
- Saturated fats
- Trans fats
- Sedentary lifestyle
Nutrient and Medication Interactions

• Proton pump inhibitors: vitamin B12, C, folate, zinc and other minerals
• Tylenol: glutathione
• NSAIDS: folate
• Ritalin, Adderall, caffeine: can lead to low magnesium levels
• Metformin: vitamin B12
• Methotrexate: folate (may not want to supplement during treatment of certain patient groups)
• Oral contraceptives: folate, vitamin B12, B6, and C, and Zinc
• Smoking: Vitamin C, B-carotene, selenium and zinc
Food Sources of Affected Nutrients

- Folate – edamame, legumes, leafy greens, wheat germ, beets, fortified grains
- Magnesium - legumes, edamame, leafy greens, nuts, pumpkin seeds, wheat germ, bran
- Selenium – brazil nuts, meat, fish, eggs, dairy, spinach, cashews
- Vitamin A – apricots, carrots, cantaloupe, broccoli, milk, spinach, sweet potato
- Vitamin B6 – legumes, fish, potatoes, meats, dairy
- Vitamin B12 – meat, poultry, clams, eggs, milk, nutritional yeast
- Vitamin C – broccoli, brussels sprouts, cabbage, strawberries, potatoes, tomatoes
- Zinc – legumes, eggs, meats, fish, peanuts, wheat germ
New American Plate
Dietary Guidelines for Americans 2020-2025

Healthy Mediterranean-Style Dietary Pattern for Ages 2 and Older, With Daily or Weekly Amounts From Food Groups, Subgroups, and Components

<table>
<thead>
<tr>
<th>CALORIE LEVEL OF PATTERN</th>
<th>1,000</th>
<th>1,200</th>
<th>1,400</th>
<th>1,600</th>
<th>1,800</th>
<th>2,000</th>
<th>2,200</th>
<th>2,400</th>
<th>2,600</th>
<th>2,800</th>
<th>3,000</th>
<th>3,200</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOD GROUP OR SUBGROUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables (cup eq/day)</td>
<td>1</td>
<td>1½</td>
<td>1½</td>
<td>2</td>
<td>2½</td>
<td>2½</td>
<td>3</td>
<td>3</td>
<td>3½</td>
<td>3½</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Dark-Green Vegetables (cup eq/wk)</td>
<td>½</td>
<td>1</td>
<td>1</td>
<td>1½</td>
<td>1½</td>
<td>2</td>
<td>2</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td></td>
</tr>
<tr>
<td>Red and Orange Vegetables (cup eq/wk)</td>
<td>2½</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>5½</td>
<td>5½</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>7½</td>
<td>7½</td>
</tr>
<tr>
<td>Beans, Peas, Lentils (cup eq/wk)</td>
<td>½</td>
<td>½</td>
<td>½</td>
<td>1</td>
<td>1½</td>
<td>1½</td>
<td>2</td>
<td>2</td>
<td>2½</td>
<td>2½</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Starchy Vegetables (cup eq/wk)</td>
<td>2</td>
<td>3½</td>
<td>3½</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Other Vegetables (cup eq/wk)</td>
<td>1½</td>
<td>2½</td>
<td>2½</td>
<td>3½</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5½</td>
<td>5½</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Fruits (cup eq/day)</td>
<td>1</td>
<td>1</td>
<td>1½</td>
<td>2</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>2½</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Grains (ounce eq/day)</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Whole Grains (ounce eq/day)</td>
<td>1½</td>
<td>2</td>
<td>2½</td>
<td>3</td>
<td>3</td>
<td>3½</td>
<td>4</td>
<td>4½</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Refined Grains (ounce eq/day)</td>
<td>1½</td>
<td>2</td>
<td>2½</td>
<td>3</td>
<td>3</td>
<td>3½</td>
<td>4</td>
<td>4½</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
### Healthy Mediterranean-Style Dietary Pattern for Ages 2 and Older, With Daily or Weekly Amounts From Food Groups, Subgroups, and Components

<table>
<thead>
<tr>
<th>CALORIE LEVEL OF PATTERN</th>
<th>1,000</th>
<th>1,200</th>
<th>1,400</th>
<th>1,600</th>
<th>1,800</th>
<th>2,000</th>
<th>2,200</th>
<th>2,400</th>
<th>2,600</th>
<th>2,800</th>
<th>3,000</th>
<th>3,200</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOOD GROUP OR SUBGROUP</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy (cup eq/day)³</td>
<td>2</td>
<td>2 ⅛</td>
<td>2 ⅛</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2 ⅛</td>
<td>2 ⅛</td>
<td>2 ⅛</td>
<td>2 ⅛</td>
</tr>
<tr>
<td>Protein Foods (ounce eq/day)</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5 ⅛</td>
<td>6</td>
<td>6 ⅛</td>
<td>7</td>
<td>7 ⅛</td>
<td>7 ⅛</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

#### Protein Foods Subgroups in Weekly Amounts

<table>
<thead>
<tr>
<th>Meats, Poultry, Eggs (ounce eq/wk)</th>
<th>10</th>
<th>14</th>
<th>19</th>
<th>23</th>
<th>23</th>
<th>26</th>
<th>28</th>
<th>31</th>
<th>31</th>
<th>33</th>
<th>33</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seafood (ounce eq/wk)c</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>11</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Nuts, Seeds, Soy Products (ounce eq/wk)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Oils (grams/day)</td>
<td>15</td>
<td>17</td>
<td>17</td>
<td>22</td>
<td>24</td>
<td>27</td>
<td>29</td>
<td>31</td>
<td>34</td>
<td>36</td>
<td>44</td>
<td>51</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Limit on Calories for Other Uses (kcal/day)</th>
<th>130</th>
<th>80</th>
<th>90</th>
<th>120</th>
<th>140</th>
<th>240</th>
<th>250</th>
<th>280</th>
<th>300</th>
<th>330</th>
<th>400</th>
<th>540</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit on Calories for Other Uses (%/day)</td>
<td>13%</td>
<td>7%</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
<td>12%</td>
<td>11%</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
<td>13%</td>
<td>17%</td>
</tr>
</tbody>
</table>
**DASH Eating Plan**

**The Benefits:** Lowers blood pressure & LDL "bad" cholesterol.

<table>
<thead>
<tr>
<th><strong>Eat This</strong></th>
<th><strong>Limit This</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables</td>
<td>Fatty meats</td>
</tr>
<tr>
<td>Fruits</td>
<td></td>
</tr>
<tr>
<td>Whole grains</td>
<td>Full-fat dairy</td>
</tr>
<tr>
<td>Fat-free or low-fat dairy</td>
<td>Sugar sweetened beverages</td>
</tr>
<tr>
<td>Fish</td>
<td></td>
</tr>
<tr>
<td>Poultry</td>
<td></td>
</tr>
<tr>
<td>Beans</td>
<td>Sweets</td>
</tr>
<tr>
<td>Nuts &amp; seeds</td>
<td></td>
</tr>
<tr>
<td>Vegetable oils</td>
<td>Sodium intake</td>
</tr>
</tbody>
</table>

www.nhlbi.nih.gov/DASH

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Daily Servings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grains</td>
<td>6–8</td>
</tr>
<tr>
<td>Meats, poultry, and fish</td>
<td>6 or less</td>
</tr>
<tr>
<td>Vegetables</td>
<td>4–5</td>
</tr>
<tr>
<td>Fruit</td>
<td>4–5</td>
</tr>
<tr>
<td>Low-fat or fat-free dairy products</td>
<td>2–3</td>
</tr>
<tr>
<td>Fats and oils</td>
<td>2–3</td>
</tr>
<tr>
<td>Sodium</td>
<td>2,300 mg*</td>
</tr>
</tbody>
</table>

**Weekly Servings**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuts, seeds, dry beans, and peas</td>
<td>4–5</td>
</tr>
<tr>
<td>Sweets</td>
<td>5 or less</td>
</tr>
</tbody>
</table>
Added Sugars

• Some foods have sugar naturally—like fruits, vegetables, and milk. The sugars in these foods are not added sugars.

• **Added sugars include**: granulated/powdered sugar, high fructose corn syrup, molasses, cane sugar, corn sweetener, raw sugar, syrups (ex. maple), honey, fruit juice concentrates

• There is about 4.2 grams sugar in 1 teaspoon granulated sugar

• Goals:
  – Less than 2 years of age avoid added sugars
  – Preteens and younger: aim for less than 25 to 30 grams daily
  – Adolescents and adults: 25 to 35 grams daily (10% or less of total calories)

AHA, AAP, WHO, and Dietary Guidelines 2020 - 2025
# Sugar in Common Drinks

<table>
<thead>
<tr>
<th>Drink (12-ounce serving)</th>
<th>Teaspoons of Sugar</th>
<th>Calories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottled Water</td>
<td>0 teaspoons</td>
<td>0</td>
</tr>
<tr>
<td>Diet Cola</td>
<td>0 teaspoons</td>
<td>0</td>
</tr>
<tr>
<td>Sugar-Free Drink Mix</td>
<td>0 teaspoons</td>
<td>0</td>
</tr>
<tr>
<td>Sugar-Free Lemonade</td>
<td>0 teaspoons</td>
<td>0</td>
</tr>
<tr>
<td>Unsweetened Tea</td>
<td>0 teaspoons</td>
<td>0</td>
</tr>
<tr>
<td>Sports Drink</td>
<td>2 teaspoons</td>
<td>75</td>
</tr>
<tr>
<td>Lemonade</td>
<td>6¼ teaspoons</td>
<td>105</td>
</tr>
<tr>
<td>Orange Juice</td>
<td>7½ teaspoons</td>
<td>160</td>
</tr>
<tr>
<td>Sweet Tea</td>
<td>8½ teaspoons</td>
<td>120</td>
</tr>
<tr>
<td>Powdered Drink Mix (with sugar)</td>
<td>9 teaspoons</td>
<td>145</td>
</tr>
<tr>
<td>Cola</td>
<td>10¼ teaspoons</td>
<td>150</td>
</tr>
<tr>
<td>Fruit Punch</td>
<td>11½ teaspoons</td>
<td>195</td>
</tr>
<tr>
<td>Root Beer</td>
<td>11½ teaspoons</td>
<td>170</td>
</tr>
<tr>
<td>Grape Juice</td>
<td>12 teaspoons</td>
<td>200</td>
</tr>
<tr>
<td>Orange Soda</td>
<td>13 teaspoons</td>
<td>210</td>
</tr>
</tbody>
</table>
Cola Label where to find the added sugar content

**Nutrition Facts**

<table>
<thead>
<tr>
<th>Serving size</th>
<th>1 Bottle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>240</td>
</tr>
<tr>
<td>% Daily Value*</td>
<td></td>
</tr>
<tr>
<td>Total Fat</td>
<td>0g</td>
</tr>
<tr>
<td>Sodium</td>
<td>75mg</td>
</tr>
<tr>
<td>Total Carbohydrate</td>
<td>65g</td>
</tr>
<tr>
<td>Total Sugars</td>
<td>65g</td>
</tr>
<tr>
<td>Includes 65g Added Sugars</td>
<td>130%</td>
</tr>
<tr>
<td>Protein</td>
<td>0g</td>
</tr>
</tbody>
</table>

*Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron and potassium.

**INGREDIENTS**

Carbonated Water, High Fructose Corn Syrup, Caramel Color, Phosphoric Acid, Natural Flavors, Caffeine.
Ketchup:

With Sugar added:

Without Sugar Added:
• Small bagel has 5.8 grams added sugar
• Large bagel has ~11 grams added sugar

30 Years ago

140 calories
3-inch diameter

Present

350 calories
6-inch diameter

Calorie Difference: 210 calories
30 Years ago

• Small has about 7 grams added sugar

• Large has about 13 grams added sugar

Present

333 calories

590 calories

Calorie Difference: 257 calories

www.nhlbi.nih.gov
30 Years ago

• Small has about ~7 grams added sugar

• Large has about ~14 grams added sugar

Present

Calorie Difference: 400 calories

www.nhlbi.nih.gov
Summary

• Dietitians use motivational interviewing techniques to help patients find 1-2 goals to work towards a healthier diet and lifestyle
• Include more: physical activity and foods with fiber, unsaturated fats, phytosterols, flavonoids, and minerals
• Include less: ultra processed foods, excess salt, added sugar, alcohol, saturated fats, and trans fats
• Following a healthy eating pattern such as Mediterranean style eating or the DASH diet can lead to better health outcomes
References

References


Today’s Program:
• Brief housekeeping
• Didactic: Movement in Our Health
  – Michele Guerra
• Case Presentation: Erik Shessler
• Case Discussion
• Summary
• Up Next

Notes:
• Enter name, organization into chat
• Raise virtual hand or enter comments in chat at any time. We will call on you when it works. Please mute otherwise.
• To protect individual privacy, please use non-identifying information when discussing cases.
• We will be recording the didactic part of these sessions. Participating in these session is understood as consent to be recorded. Thank you!
• Closed Captioning will be enabled during sessions
• Submit cases
Movement and our children’s health

Michele Guerra
(Former) Employee Wellness Manager, Dartmouth Health CGP
Learning objectives

• Review the benefits of physical activity for children and adolescents
• *Understand the public health physical activity guidelines for children and adolescents*
• Know where youth stand in relation to the guidelines
• *Explore tactics to use during office visits to motivate children and their parents to be more active*
• Comprehend the power of parents in helping children & teens be more active
• *Tap into some behavior change theories and techniques to enhance conversations with patients and their parents.*
Benefits of PA in youth

- Reduced stress
- Enhanced sleep
- Improved mood
- Reduced risk of depression & depressed mood

Improved cognition
- performance on academic achievement tests,
- executive function,
- processing
- speed,
- memory

Reduced risk of depression & depressed mood

Improved cognition
- performance on academic achievement tests,
- executive function,
- processing
- speed,
- memory

Reduced risk of depression & depressed mood
PA guidelines for children and teens

Ages 3 - 5
• Be active through the day
• Caregivers encourage active play whenever possible

Ages 6 - 17
• Overall – 60 minutes per day
• Include
  – Aerobic
  – Muscle Strengthening
  – Bone strengthening

### Where are we at?

<table>
<thead>
<tr>
<th>Adolescents Goal</th>
<th>Adolescents Progress</th>
<th>Children Goal</th>
<th>Children Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase proportion who do enough muscle strengthening activity</td>
<td>Little or no detectable change</td>
<td>Increase proportion (ages 2 – 5) who get no more than 1 hour of daily screen time</td>
<td>Getting worse</td>
</tr>
<tr>
<td>Increase proportion who do enough aerobic activity</td>
<td>Getting worse</td>
<td>Increase proportion who do enough Aerobic activity</td>
<td>Getting worse</td>
</tr>
<tr>
<td>Increase proportion who do enough aerobic and muscle strengthening activity</td>
<td>Getting worse</td>
<td>Increase proportion of children and adolescents who play sports</td>
<td>Getting worse</td>
</tr>
</tbody>
</table>

**Healthy People 2030**
Keep in mind…

- Activity can be moderate
  - 5 – 6 on intensity scale of 1 – 10
  - Walk to school with friends – moderate
  - Run while playing tag or other active games - vigorous
Keep in Mind ...

• Activity can be **accumulated**
  – Short bouts throughout the day can be very effective
What you can do during a visit

**Assess** current levels of PA, interest level, etc.

**Educate/ empower patients** to increase PA

**Encourage/ empower parents** to support PA
Assess

- Current level of PA
  - (define broadly)
- Lifestyle
- Barriers
- Likes & dislikes

- Overall attitude toward PA
- Stage of change related to PA
- Confidence to be more active
Match approach to readiness to change

The Stages of Change Model

Precontemplation -> Contemplation -> Action -> Preparation -> Maintenance

Precontemplation: "I don't want to change."
Contemplation: "I am thinking about change."
Preparation: "I am getting ready to make a lifestyle change."
Action: "I have made some lifestyle changes."
Maintenance: "I regularly practice healthy lifestyles."

Exit & re-enter at any stage

Assess readiness—two questions

1. “How **important** is it to you to make this change, on a scale of 0 to 10 with 10 being extremely important?”

2. “How **confident** are you that you can make this change, on a scale of 0 to 10 with 10 being extremely confident?”
Educating/empowering – it’s a DIALOGUE, not a lecture

<table>
<thead>
<tr>
<th></th>
<th>Traditional</th>
<th>Collaborative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactions</td>
<td>Based on the caregiver’s agenda</td>
<td>Based on a shared agenda</td>
</tr>
<tr>
<td>Behavior change</td>
<td>Comes from knowledge</td>
<td>Comes from self-efficacy plus knowledge</td>
</tr>
<tr>
<td>Goal</td>
<td>Compliance</td>
<td>Self-efficacy</td>
</tr>
<tr>
<td>Decisions</td>
<td>Made by the caregiver</td>
<td>Made by the patient and caregiver in partnership</td>
</tr>
</tbody>
</table>
Educate/empower patients

- Meaningful benefits
- Redefine what PA is
- Enjoyable
- Realistic
- Ability & confidence
- Barriers

https://healthy.kaiserpermanente.org/health-wellness/health-encyclopedia/he.abp8455#
Encourage/empower parents

- Be a role model
- Actively play with children
- Reduce screen time
- Incorporate lifestyle PA
- Integrate PA into
  - family routines
  - special celebrations
  - vacations, etc.
Behavior change tools

- Include lifestyle physical activity
- Enlist support
- Make substitutions
- Build confidence
- Identify and problem solve barriers
- Explore new activities
- Seek out resources
- Reward yourself
- Monitor self talk
- Plan for high-risk situations

Kohl, HW, 3rd; Dunn, AL; Marcus, BH, Blair, SN. (1998). A randomized trial of physical activity interventions: design and baseline data from project active. Medicine in Science and Sports Exercise. 01, Feb 1998, 30 (2), 275 - 283
Some things to remember

• Moderate PA
• Lifestyle PA
• Accumulating short bouts
• Behavior change is not linear
  – small changes can be significant
• Have a dialogue
• Make it relevant to the patient
  – meet the patient where they are at
• Address barriers/confidence
• Engage the parents

https://www.youtube.com/watch?v=yitf2gUYMAk
Questions?
Thanks for participating!
Today’s Program:
• Brief housekeeping
• Didactic: Mind body therapies: MBSR, hypnosis, guided imagery, biofeedback (access, evaluating, usage etc) – Gerri Rubin
• Case Presentation: Gerri Rubin
• Case Discussion
• Summary
• Up Next

Notes:
• Enter name, organization into chat
• Raise virtual hand or enter comments in chat at any time. We will call on you when it works. Please mute otherwise.
• To protect individual privacy, please use non-identifying information when discussing cases.
• We will be recording the didactic part of these sessions. Participating in these session is understood as consent to be recorded. Thank you!
• Closed Captioning will be enabled during sessions
• Submit cases
Mind Body Medicine

Gerri Rubin, MD
Chair, Pediatrics, DH Keene, Cheshire Medical Center
Associate Clinical Professor of Pediatrics, Geisel School of Medicine
Mind Body Medicine

• Aristotle (384–322 BC)
  – Believed every person has both physical & spiritual properties, no separation between mind & body
• René Descartes (1596–1650)
  – Worried scientific materialism would make the conscious mind vulnerable to manipulation & control
  – Aimed to separate the mind from the body to protect spirit from science
  – Mind & spirit should be the focus of the church, the body the focus of science.
  – “Cartesian split”- mind–body duality
• John Locke (1632–1704) & David Hume (1711–1776)
  – Furthered the Reductionist movement shaping modern science and medicine: if reduce natural phenomena to simple components, can better understand the larger whole.
  – Reductionism facilitated great discoveries that helped humans gain control over the environment.
• Early 20th century
  – Applied science transformed medicine through the development of medical technologies.
  – Reductionism and the scientific method stimulated the growth of allopathic medical institutions.
Mind Body Medicine

• Scientific model led to greater understanding of the pathophysiological basis of disease and the development of tools to help combat it.

• Sub-specialization of medical care facilitated application of the new information: practitioners focused on the pieces and society appreciates their abilities to fix problems.
  – Does not work well for chronic disease that involves more than just a single organ.
  – All body organs are interconnected, so repairing parts without addressing underlying causes provides only temporary relief
  – Responsible for a very expensive health care system in the United States with poor health outcomes.
Mind Body Medicine

• Current medical system
  – Encourages patients to believe that technology, medication and procedures are the answer to their physical woes
  – Discourages them from paying attention to the complex interactions of body, mind, community, and spirit.

• Technology has widened the barrier of communication between the patient & provider.

• Old tools of the trade—rapport, gestalt, intuition, and laying on of hands—used less often as powerful drugs and high-tech interventions became more available

• Rising interest in integrative medicine now, due to
  – Deterioration of the patient–provider relationship,
  – Overuse of technology and pharmaceuticals, and the
  – Inability of the medical system to treat chronic disease adequately
Mind Body Medicine

• Health is defined by the World Health Organization (WHO) as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Cure, on the other hand, refers to doing something (e.g., giving drugs or performing surgery) that alleviates a troublesome condition or disease. Healing does not equal curing.
Mind Body Medicine

Biological perspective doctor patient relationship- reciprocal altruism-
complex biological/neurologic reactions that we leverage daily

- Feeling sick - seeking relief - meeting the therapist - receiving the therapy
- Healer’s brain- compassion and empathy
  - Native Healer quote: “I come to you in a good way”
- Patient’s brain- trust and hope
- Placebo/nocebo mechanisms and brain changes induced by therapeutic
  rituals, expectation and learning
Mind Body Medicine- Stress

- Estimates that 80% of Primary Care visits related to stress
- Dr. Bruce McEwen describes
  - Three stress categories
    - Good stress: “eustress”- leads to adaptive change and resiliency
    - Tolerable stress: “distress”- can cope but may need support- resiliency
    - Toxic stress- cannot cope
  - Allostasis: adaptive processes that maintain homeostasis through the production of mediators such as adrenalin, cortisol, and other chemical messengers.
    - Promote adaptation in the aftermath of acute stress
    - But can contribute to allostatic overload: the wear and tear on the body and brain that result from being 'stressed out.'
Mind Body Medicine

• In normal stress states we have a top-down control from prefrontal cortex downward (inhibitory).

• With allostatic overload we have bottom-up control with the amygdala activating first.
  – Dysregulation HPA axis, inflammation, hormone derangements, disrupted neuronal activity on fMRI
  – Chronic stress leads to chronic disease states

• About 25% of pediatric patients have anxiety!
Mind Body Medicine The Relaxation Response

• Dr. Herb Benson- The Relaxation Response, 1970’s study of BP in Transcendental meditators
  – Quantified what others had know for centuries before the “Cartesian split”
  – Taught four elements usually elicited the relaxation response:
    1. Mental device: repeating a word, prayer, or mantra
    2. Passive attitude: thoughts that occur during meditation are disregarded, not judged, or followed
    3. Decreased muscle tone: sitting in a comfortable position
    4. Quiet environment: closing the eyes

Relaxation Response

- Improved heart rate variability
- Improves telomere lengths
- Altered gene expression
- Improved immune function
- Alteration in microbiome and gut brain axis
Mind Body Modalities to Down-Regulate the Nervous System

- Breathing - general concept is to decrease to 6 breaths per minute impacts HRV, BP, pain, memory i.e bellows breathing, 4-7-8 breathing
- Meditation
- Mindfulness/MBSR - changes in prefrontal cortex, amygdala and connectivity
- Yoga
- Guided Imagery
- Hypnosis
- Progressive muscle relaxation
- Biofeedback - HRV, EMG, thermal feedback, neurofeedback/EEG
- Tai Chi/Qi gong
- Emotional Freedom Technique
- CBT
Mind Body Medicine- The Evidence in Pediatrics

• Researching mind body intervention is challenging.
  – Double blind, randomized, placebo-controlled trials do not fit well the complex biopsychosocial framework, a short fall of reductionism and research methodology in allopathic medicine
  – No big pharma to pay for research studies.
• Last AAP review article, Section on Integrative Medicine, Hillary McClafferty 2016
  – Biofeedback- evidence in headache, asthma, enuresis, neurofeedback ADHD?, chronic pain- expensive
  – Clinical hypnosis-evidence functional abdominal pain, procedural and chronic pain
  – Guided Imagery-stress reduction, pain management, improved psychological function-caution in trauma
  – Meditation/MBSR- evidence mental health, coping, self regulation, HTN, negative school behaviors
  – Yoga- pain, emotional, mental and behavioral conditions-studies had limitations
• Adverse event reporting of Mind Body intervention is limited.
  – 2021 systematic review showed 85.5% of studies did not report AEs.
  – Grade 3 was highest grade of AE’s, majority Grade 1.
  – Causality not clear in many cases.
Pediatric Evidence for GI disorders

• Functional GI Disorder- IBS, functional abdominal pain, functional constipation, functional dyspepsia
  – Disturbance in the gut brain axis- disruption of bidirectional communication between gut and brain via ANS, endocrine and immune pathways
  – Leads to changes in endocrine pathways, immune response, motility, sensation
• Brain-gut therapy effective in functional GI disorders & inflammatory bowel disease
  – Best evidence for CBT, exposure-based therapy, hypnotherapy & mindfulness in functional GI disorders
  – But also important in IBD as well

Pediatric Evidence Clinical Hypnosis/Guided Imagery

- Kids < 14 years- highly susceptible to hypnotic state
- 14-20 years 90 % susceptible to hypnotic state
- Scripts used to fit child and their interests- post hypnotic suggestions to provide symptom relief, gain control of symptoms or build self confidence
- Online therapy & home-based self exercises are non inferior to individual, in person therapy
- Strong evidence for
  - Pain reduction in acute procedures involving needles,
  - Decreased use of sedatives and analgesics, decreased length of hospital stay
  - GI pain, headaches, asthma, anxiety
- Possible effectiveness in ADHD

Steve Bierman Healing: Beyond Pills and Potions
European Journal of Pediatrics(2023) 182:3021-3032
Other Findings

- Mindfulness based interventions evidence -anxiety, depression, eating disorder, SUD, pain

- 2020 review of nonpharmacologic management of ADHD showed meditation, yoga, Tai chi had impact on inattention, increased executive function, improved self esteem and remarkably a systematic review of 34 trials showed tai chi comparable to methylphenidate in short term, more stable effect in long term. Mindfulness lacked adequate data in children but significant improvement in inattention in adults

- 2020 review yoga, meditation and mindfulness in pediatric oncology shows improved QOL, sleep, activity and fitness level, increase appetite, decreased anxiety, decreased fatigue- need better designed studies- no conclusions


Yoga, Meditation and Mindfulness in pediatric oncology: a review, Stritter et al, Complementary Therapies in Medicine 63(2021) 102791

Mindfulness based intervention for adolescent health, Lin et al, Current Opinion Pediatrics; Volume 31, Number 4, August 2019
What You Can Deliver

- Always introduce the biopsychosocial model of health as you approach a complaint
- When recommending Mind Body techniques to patients, do so in the context of the patients’ personal health, and in relation to their daily lives, families, communities, belief systems, and sociocultural locations
- Breath with your patients and families in the office- find a couple techniques and practice with them- emphasize the power of breath
- Watch the Magic Glove video and try it with a patient for IV or vaccines, teach parents the technique, send them home with a glove!!!
  https://www.bing.com/videos/search?q=magic+glove+video&view=detail&mid=5C1D45FCF532934F68E15C1D45FCF532934F68E1&FORM=VIRE
- Figure out what patients have learned at school- lots of breathing, yoga and mindfulness being taught- have them teach you
- Recommend resources: gonoodle.com- yoga and relaxation; Insight timer free app- sleep, meditation, mindfulness, CHOC Guided Imagery recordings https://www.choc.org/programs-services/integrative-health/guided-imagery/
- Try guided imagery with a patient in the office for a vaccine or procedure
- Find local referral resources