Integrative Pediatrics: Where have we been? Where are we? Where are we going?

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Professor of Pediatrics
Public Health Sciences
Family and Community Medicine
WFUSM
OBJECTIVES
By the end of this session:

1. Compare and contrast holistic, integrative medicine with CAM
2. Describe characteristics of social environment that facilitate or challenge change
3. Apply the yin/yang model to clinical care, education and research
4. Use published resources to incorporate motivational interviewing and non-violent communication in professional practice
Introduction: Definitions and Conceptual Models

• CAM
• Holistic
• Integrative
• Core values
• Five key areas of professional activity
Complementary, Alternative and Mainstream Therapies

Alternative

Mainstream

Complementary
Holistic

Caring for whole person - body, mind, emotions, spirit, relationships -- in the context of family, culture and community = Contextual pediatrics (Morris Green);

Patient – Centered care
“...a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine.

While some scientific evidence exists regarding some CAM therapies, for most there are key questions that are yet to be answered through well-designed scientific studies

--questions such as whether these therapies are safe and whether they work for the diseases or medical conditions for which they are used.”
Usage of Specific Types of Alternative Care in the Past Year

- Herbal Therapy: 17%
- Chiropractic: 16%
- Massage Therapy: 14%
- Vitamin Therapy: 13%
- Homeopathy: 5%
- Yoga: 5%
- Acupressure: 5%
- Acupuncture: 2%
- Biofeedback: 2%
- Hypnotherapy: 1%
- Naturopathy: 1%

Physician Use of CAM

Consortium of Academic Health Centers for Integrative Medicine:

“Integrative Medicine is the practice of medicine that reaffirms the importance of the relationship between practitioner and patient, focuses on the whole person, is informed by evidence, and makes use of all appropriate therapeutic approaches, healthcare professionals and disciplines to achieve optimal health and healing.”

It is founded on the principles and values of HUMANISTIC MEDICINE.
CAM is a SUBSET of tools within Integrative Medicine

Integrative Medicine is a system of comprehensive care that emphasizes wellness and healing of the whole person, with special emphasis on patient participation, and attention to mental and spiritual health. The knowledge and use of Complementary and Alternative Medicine (CAM) is an important aspect of Integrative Medicine.

Section on Integrative Medicine, Internal Medicine, UNM
Integrative Approach

- Biochemical
- Lifestyle
- Biomechanical
- Bioenergetic
Biochemical

- Medications
- Dietary Supplements, such as herbs

- When asking about meds, also ask about OTC and vitamins, minerals, other supplements and herbs
- Give examples
- Be specific
Lifestyle

- Nutrition, Diet, Habits to avoid (tobacco, xs EtOH, drugs)
- Exercise and Rest
- Mind-Body Therapies
- Environment

When asking about smoking, alcohol, also ask about diet, exercise, stress management, social support and environment. FORMS!
Biomechanical

- Surgery
- Massage / Bodywork
- Cranial, spinal or joint adjustment
Bioenergetic

- Acupuncture
- Healing Touch/TT/Reiki/Qi Gung
- Prayer/Spirituality
- Homeopathy (remedies)
Core values

- **AAMC professional Values**: service, advocacy, altruism
- **Behaviors**:
  1) subordinate personal interests to those of others;
  2) high ethical/moral standards;
  3) respond to societal needs (greater good);
  4) show humanistic values of **caring, compassion, altruism, empathy, respect for others, trustworthiness**;
  5) accountability;
  6) commitment to **excellence, scholarship and advancing knowledge**;
  7) **reflective and able to deal with complexity**

SwickHM. *Acad Med*, 2000;75(6): 612
Past

• Distant past: many local healing traditions, focus on balance, harmony with nature and earth; Greek humoral medicine; remove toxins thru puking, purging, sweating, bleeding (eg mustard plasters, mercury, arsenic)

• 19th century Euro-American
• Early 20th century Euro-American
• Social movements
• Late 20th Century
19th century medicine

- US universities: 200 endowed chairs in theology; 5 in medicine
- Advent of stethoscope (French), thermometers (French), handwashing, microscope (Germans)
- Germ theory (Henle, Virchow, Pasteur, Lister)
- 1840’s John Snow – epidemiology of cholera; Wm Budd – typhoid
- 1846 Surgical anesthesia
- Union Surgeon Gen’l Wm Hammond banned violent purgatives – court martialed and condemned by AMA (<10% US MDs)
- 1881 Sternberg isolated pneumococcus; phagocytosis
- 1882 Koch discovers tubercle bacillus as cause of TB
- 1883 Koch identifies cholera bacillus as cause of dysentery
- 1883 Pasteur vaccinated cattle against anthrax
- 1884 Loeffler isolated diphtheria bacillus; 1891, first CURE using serum for diphtheria (diphtheria antitoxin)
Early 20th century - US

- 1900 AMA had 8000 members/ 110,000 MDs in US
- Johns Hopkins medical school
- Flexner report; by 1920’s 100 medical schools closed
- 1909 Ehrlich - Salvarsan (arsenic) syphilis
- 1928 Fleming – penicillin
- 1930 AAP founded
- 1929 Blue Cross founded in Dallas, Tx
- 1947 Group Health Cooperative founded
- 1952 French anesthesiologist – chlorpromazine (accidental discovery)
- 1954 Polio vaccine
- 1960’s Valium
1960’s – 1970’s: Change and Barriers to Change

- Peace movement
- 1960 Ambulatory Pediatric Association founded
- 1962 Silent Spring (Rachel Carson); Esalen founded
- 1964 Civil Rights Act
- 1965 Medicaid and Medicare – war on poverty
- 1966 National Organization of Women (NOW); 1973 Roe v Wade
- 1970 – Earth Day
- 1972 Nixon trip to China- acupuncture re-emerges
- 1973 Our Bodies, Our Selves
- 1976 Spiritual Midwifery
- 1978 American Holistic Medical Association
- 1980 American Holistic Nurses Association
1980’s

- Me generation; greed; profit; capitalism dominates
- Health Services research as well as clinical and basic sciences research
- AHMA grows
- Humanistic Medicine in AMSA starts holistic medicine education for students
- 1981 first article on physician burnout in pediatrics
- 1983 Kripalu yoga ctr MA starts
Burnout model

Desire and confidence
To practice
Compassionate, Patient-centered care

Yes, feel confident and Able to do so
Fulfilling practice

No, lack confidence in ability or support to do so
Learn new skills; Turn to CAM

Burnout
Leave practice
1990’s - 2003

- CAM Epidemiology – Eisenberg NEJM paper
- 1998 JAMA series
- Remen – Institute for the Study of Health and Illness; UCSF Meaning and Medicine
- Contextual pediatrics (Green)
- 1996 – Contemporary Pediatrics: *7 Herbs Every Pediatrician Should Know*
- 1996 *The Holistic Pediatrician*
- 1997 APA SIG on Holistic Pediatrics
- 1998 CHPER formed at Boston Children’s; first pediatric resident elective in holistic medicine
- 1998 AAP supports folic acid supplementation for pregnant women to reduce birth defects
- 2003 Pediatric Rule legislation requiring that children are included in trial testing of new drugs
Present

• Clinical
  – Increasing number of pediatricians using CAM;
    AAP survey
  – Ethics of CAM practice
  – Yin/Yang model of clinical care
• Educational
• Research
• Advocacy
• Administration/leadership
Is it ETHICAL to integrate CAM therapies into conventional practice?

- Principles of ethics
  - Beneficence / Do no harm
  - Autonomy
  - Justice
  - Etc.

- Common Sense
  - Patient-centered care
  - Improve health and well-being
  - Balance risks and benefits
<table>
<thead>
<tr>
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<th>Effective</th>
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<tbody>
<tr>
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Cohen M. *Pediatrics*, 2005
Effectiveness?

- **What therapy?** (acupuncture is NOT chiropractic is NOT herbs is NOT massage)
- For whom? (adults vs. kids; men vs. women)
- For what condition? (cancer, colds)
- Under what circumstances/context?
- For what desired outcome?
- Costs/benefits – immediate and long-term

Kemper. *Arch Dis Child*, 2001
# Surgery for Appendicitis

Surgery for appendicitis is effective.

- **Safe**
  - Yes: **Use/Recommend**
  - No: Monitor closely

- **Not Safe**
  - Yes: Tolerate
  - No: Advise against

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Cohen M. *Pediatrics*, 2005
## Surgery for Common Cold

**Effective**

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Cohen M. *Pediatrics*, 2005
# Nausea: Does CAM work?

## Acupuncture

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Cohen M. *Pediatrics*, 2005
Nausea: Does CAM work? Chiropractic

Effective

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## Chemotherapy for Cancer

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Cohen M. *Pediatrics*, 2005
Echinacea or Chicken Soup to Treat Common Cold

Effective

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– Under what circumstances/context?
– For what desired outcome? Patient goals
– Costs/benefits – immediate and long-term

Kemper. Arch Dis Child, 2001
Model for Pt
Goals for Healing

**YANG-type/Specific**
- Cure
- Manage symptoms
- Prevent specific disease
- Reduce or manage specific toxin

**YIN-type/Global**
- Connection/Support/
  - Trust
- Meaning/Transcendence
- Harmony
- Peace
- Well-being/Resilience
- Reduce dependence
Tools to Achieve Patient Goals

**YANG - type**
- What we KNOW, e.g. differential dx; EBM
- What we DO, e.g., specific skills

**YIN – type**
- WHO and WHY we are, e.g., intentionality; compassion
- HOW we are, e.g., present, centered, peaceful, hopeful, patient-focused, respectful, compassionate
- COMMUNICATION
Pediatric Research in Integrative Medicine - current

- Effectiveness of Therapies: massage, echinacea, homeopathy, probiotics, music
- Less research in peds than in adults
- Need more research on enhancing communication and compassion
- Yin and Yang of Research
Largest Topics for Research at WFUSM

- Herbs and dietary supplements: soy, fatty acids, ginkgo, vitamin D, lycopene, etc.
  - Basic Research
  - Clinical Research
  - Health Services Research
  - Educational Research

- Mind-body Therapies
  - Music
  - Meditation
  - Yoga

- Biofield
  - Healing Touch and Therapeutic Touch
Models for Treatment

Treatment → Disease in Organ or Tissue → Symptoms → QOL Well-being

Primary Yang

Treatment → Person → Peace Connection Trust Harmony → Symptoms or Disease

Primary Yin

Secondary
Yang Treatment Study

Chemotherapy/ XRT

Remission

Primary

HR-QOL Well-being

Secondary

Cancer

Treatment and Disease-focused research and care
Hypericum vs. Imipramine

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<th>Effectiveness (%)</th>
<th>Side Effects (%)</th>
<th>Cost per Month ($)</th>
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<td>Hypericum</td>
<td>Imipramine</td>
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Yin Treatment/Therapy

Person

Social Support; music; HT; acupuncture

Peace Connection Trust Harmony

Primary

Less pain
Less depression
Less anxiety
Better immune function
Less Heart Disease
Less cancer

Secondary

Measurement issues?????
"I believe I have a new approach to psychotherapy, but like everything else, it first has to be tested on mice."
Yang Model

- What treatments effectively treat this disease/condition/symptom? e.g., NCI, NHLBI
- What can diseases/conditions/symptoms can this treatment impact?, e.g., what can Minoxidil do for Blood pressure, hair growth; what can Paxil do for depression, for PMDD?
Yin Model

• How can we serve this person?
  – Enhance well-being; build resilience
  – Remove barriers to optimal functioning
    (concept of toxins)

• How can we serve the community?
  – Public health – jobs, education, transportation,
    esthetics (music, arts)
  – Ecology
  – Civil rights, women’s rights/social justice
  – Peace movement
Education

• Yin /Yang model of education
• WHO and WHY as well as WHAT and HOW
• CME; review articles; conferences; AAP/PAS meetings – start of Internet-based education
• Residency education – need more
• Medical school – mostly general surveys, electives; need more in pediatrics
Internet based Education about herbs and other dietary supplements

- [https://northwestahec.wfubmc.edu/learn/herbs_ce/index.cfm](https://northwestahec.wfubmc.edu/learn/herbs_ce/index.cfm)

Online Professional Curriculum on Herbs and Dietary Supplements

This innovative, online continuing educational activity addresses the growing demand by healthcare professionals to enhance their knowledge about herbs and dietary supplements (HDDS).

This curriculum:
1) provides evidence-based information on the benefits and risks of herbs and dietary supplements in an easy-to-read, case-based format;
2) links you to current information on HDDS; and
3) links you to evidence-based resources to answer your patients’ questions.

This engaging evidence-based curriculum has been developed by two physicians with national reputations in herbal medicine, the references and links come from highly reputable institutions. The activity is convenient, low-cost, user-friendly, and fills a major need to enhance professionals’ knowledge about herbs and dietary supplements.

Curriculum Information

The curriculum includes:
- Classes of 4 - 5 self-instructional modules on commonly used herbs and supplements.
- Links to evidence-based information from reliable websites of academic centers and the US government.
- Post-course assessment and evaluation. Participants must score 70% or higher on 4-5 knowledge questions to obtain continuing education credit. 1 hour of credit will be awarded for each class and you will be able to print your certificate immediately upon completion of the class.
- Participants will have 30 days, after completing registration for any class, to complete that class and its post-test.
- We suggest that you choose either the knowledge-oriented or behavioral-oriented tracks due to great similarities between the two. You may register in one or more classes. You can enroll in all of the classes at once, or try one or two and sign up for more later.

Select Track 1 or Track 2 below to view the class descriptions

Track 1 - Knowledge-based Classes
Track 2 - Behavioral-based Classes
Being Good Medicine – MS 3 Peds

- Compassionate Communication, based on Marshall Rosenberg’s NVC – role play
  - Observe
  - Identify feeling
  - Identify (unmet) need
  - Make specific request or plan
- Enhance focus and compassion: meditation
  - May all beings be happy and peaceful;
  - May all beings be free from pain and suffering;
  - May all beings know themselves and be free.
- Collecting data; doing APA/PAS workshop and Consortium workshop
Program for Holistic and Integrative Medicine at WFUSM

www1.wfubmc.edu/phim
Advocacy/ Leadership

• AAP Provisional Section for Complementary, Holistic and Integrative Medicine; if you’re not a member, JOIN
• Pediatric Integrative Medicine Leadership Initiative
• ListServ
## Institute of Medicine’s Simple Rules for the Twenty-First Century Health Care System

<table>
<thead>
<tr>
<th>Current Approach</th>
<th>New Rule</th>
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<tbody>
<tr>
<td>Care based primarily on visits</td>
<td>Care is based on continuous healing relationships</td>
</tr>
<tr>
<td>Professional autonomy drives variability</td>
<td>Care is customized according to patient needs and values</td>
</tr>
<tr>
<td>Professionals control care</td>
<td>The patient is the source of control</td>
</tr>
<tr>
<td>Information is a record</td>
<td>Knowledge is shared and information flows freely</td>
</tr>
<tr>
<td>Decision making is based on training and experience</td>
<td>Decision making is evidence-based</td>
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Institute of Medicine’s Simple Rules for the Twenty-First Century Health Care System

**Current Approach**

- Do no harm is an individual responsibility
- The system reacts to needs
- Cost reduction is sought
- Preference is given to professional roles over the system.

**New Rule**

- Safety is a system property
- Needs are anticipated
- Waste is continuously decreased
- Cooperation among clinicians is a priority
Barriers to Change

- Tradition/inertia; pre-contemplative stage
- Power threatened
  - Traditional conservatives?
- Identify – powerful, wealthy, prestigious
  - Insurers
  - Big Pharma
  - Top of academic heap
  - Top of MD income heap
- Who fears change?
Change
Population change
Creating Change

• Critical mass of clear vision, coherence, commitment, consistency
• Focus on early adopters and early majority
• Collaborate and learn from effective social change movements
• Appeal to powerful, enlightened leaders to adopt visible changes
Motivational Interviewing

D Develop discrepancy – identify values and ideal vs current state
A Avoid arguments
R Roll with resistance – do not argue! Problem-solve; help others achieve THEIR goals
E Express empathy
S Support self-efficacy

(William R. Miller, Motivational Interviewing, 2nd edition)
Two questions

• How important is it to you to:_______
• How confident do you feel in doing/being: ______________

For example, TT class,

• How important is it to you to express compassion toward your patients? 0, 10
• How confident are you in expressing compassion toward your patients through non-verbal, gentle touch? 0, 10
Key techniques:

- Elicit person’s concerns, needs, values
- Help person generate feasible alternatives
- Open ended questions
- Reflective listening
What factors affect speed of diffusion of innovations?

- Personal characteristics of people who adopt or do not adopt innovation
- Innovation characteristics
- Environment characteristics – communication, incentives, leadership, management
Successful Innovations

• Consistent with values, beliefs and needs
• Advantageous cost-benefit ratio
• Visible; easily modeled
• Practical
• Re-inventable; “trial-ability”
• Sustainable
Seven steps to successful innovation

- Use a sound, sustainable innovation – we are!
- Find and support early innovators – we are!
- Invest in early adopters – we are!
- Make early adopters easily visible
- Trust and enable reinvention
- Create slack for change; it takes time to tinker
- Lead by example; showcase success; nothing succeeds like a winner – PR, press releases, AAP media relations; review articles; present at AAP/PAS;
Being change

• Be the change you want to see
• The path is made by walking.
• Success – focus, commitment; can you dance at every wedding? Keep your eyes on the prize!
• Do what brings you joy.
• “Wise as serpents and gentle as doves”
• Collaborate; be a team player
• Just DO IT NOW.
Future

• We are creating the future NOW!
• Clinical – high quality, patient-centered, accessible care, integrating diverse therapies compassionately
• Education – at every level, including clients, families; learner-centered education, including compassion and mindfulness
• Research – advent of patient-centered research; patients sent priorities; yin-focused research and new methodology
• Advocacy – collaboration between diverse clinicians and patients FIRST; pharm and insurance as servants, not masters; advocate for what works for patients; payment for what works for everyone
• Administrative – Provisional Section collaborates and works successfully; full-fledged Section; new journal? New sections within old journals? More presence on NIH review committees; ABP
1. CAM are a subset of tools within Integrative medicine; holistic and integration are preferable to Alt vs. Mainstream.

2. Social environment affects change; be aware of resistance; focus and collaborate to overcome.

3. Yin/yang model for clinical care, education and research; holistic and integrative medicine include BOTH.

4. Use resources from CAM leaders and evidence-based information on compassion and change: books by Rosenberg, Miller.