

Academic Collaborative for Integrative Health

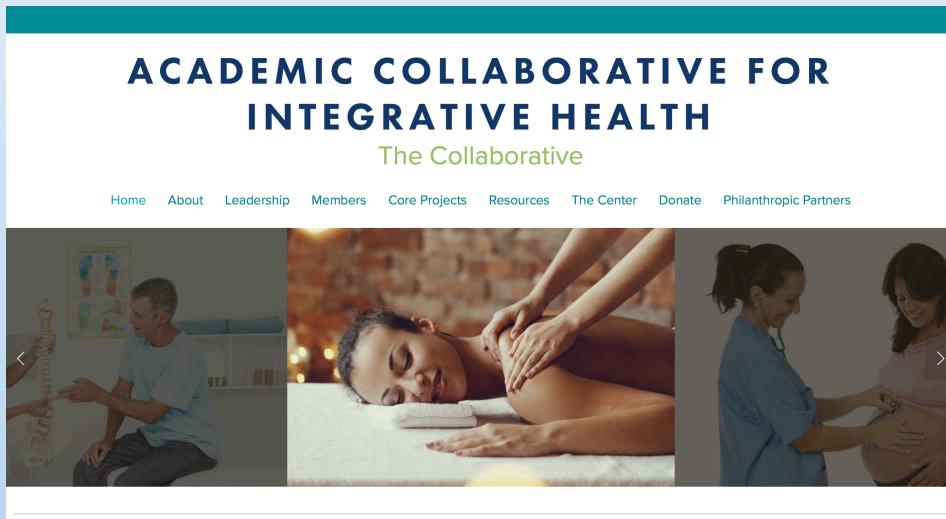
Library Special Interest Group Meeting March 22nd , 2018

Agenda:

- 1) Brief overview of ACIH
- 2) Introductions
- 3) Presentation – Bastyr University
- 4) Questions/ discussion

Academic Collaborative for Integrative Health

Build partnerships, educate, collaborate and advocate for whole person, collaborative, team-based, patient/person-centered care



www.integrativehealth.org

Core Professions

- Acupuncture and Oriental medicine
- Chiropractic
- Massage therapy
- Direct-entry (certified professional) midwives
- Naturopathic medicine

Linked to

~375,000 licensed practitioners

~180 accredited institutions and programs

Association with

Traditional world medicine fields (Ayurveda, Yoga Therapists, Certified Nutritionist, ect.)

Holistic and integrative medicine organizations



Jane Saxton, MLIS
Director of Library Services
Bastyr University



Ekaterini Papadopoulou, MLIS
Senior Librarian
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Complementary & Integrative Health (CIH) Research: Challenges and Experience from the Field

Bastyr University Library staff:

- Jane D. Saxton, Director of Library Services
- Ekaterini Papadopoulou, Sr. Librarian
- Angela Murrell, Sr. Librarian (San Diego Campus)
- Susan Banks, Sr. Librarian (content contributions)

Webinar Goals



- Information literacy in the BU library....
- Evidence in the natural health professions
- Major issues with CIH research quality and retrieval
- Acupuncture & East Asian Medicine (AEAM) Issues
- Searching: Topics, Challenges and Tips
- Search Examples
- *Questions?*

Background

Bastyr University offers programs in the natural health arts and sciences, including: Naturopathic Medicine (ND), Acupuncture and East Asian Medicine (LAc; DAOM), Counseling & Health Psychology (BS/MACP), Nutrition (BS/MS), and Public Health (MPH).



BU Library Information Literacy Competencies

- **Competency I:** Determines the nature and extent of information needed.
- **Competency II:** Understands copyright law and uses information effectively, ethically, and legally.
- **Competency III:** Able to search across a wide range of platforms, tools, and media.
- **Competency IV:** Acquires needed information effectively and efficiently.
- **Competency V:** Critically evaluates information and sources and develops answerable questions; knows when to revise the initial search query and/or to use additional resources in locating answer(s).
- **Competency VI:** Understands and can apply the principles of evidence-informed practice (EIP).
- **Competency VII:** Understands that information literacy is a process requiring: knowledge of a broad range of resources and how to search them, ability to assess the relative value of a resource for a particular need, and motivation to seek out highest quality sources to answer the question at hand.

Based on the ALA Information Literacy Standards for Science and Engineering Technology and the Association of American Medical Colleges (AAMC) Medical School Objectives Project: Medical Informatics Objectives.

EBM ... EIP ... EBP?

Q. What's the difference?

A. Colloquial use and emphasis.

Evidence-Based Medicine (EBM): *“Evidence based medicine is the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.”* Sackett et al. 1996

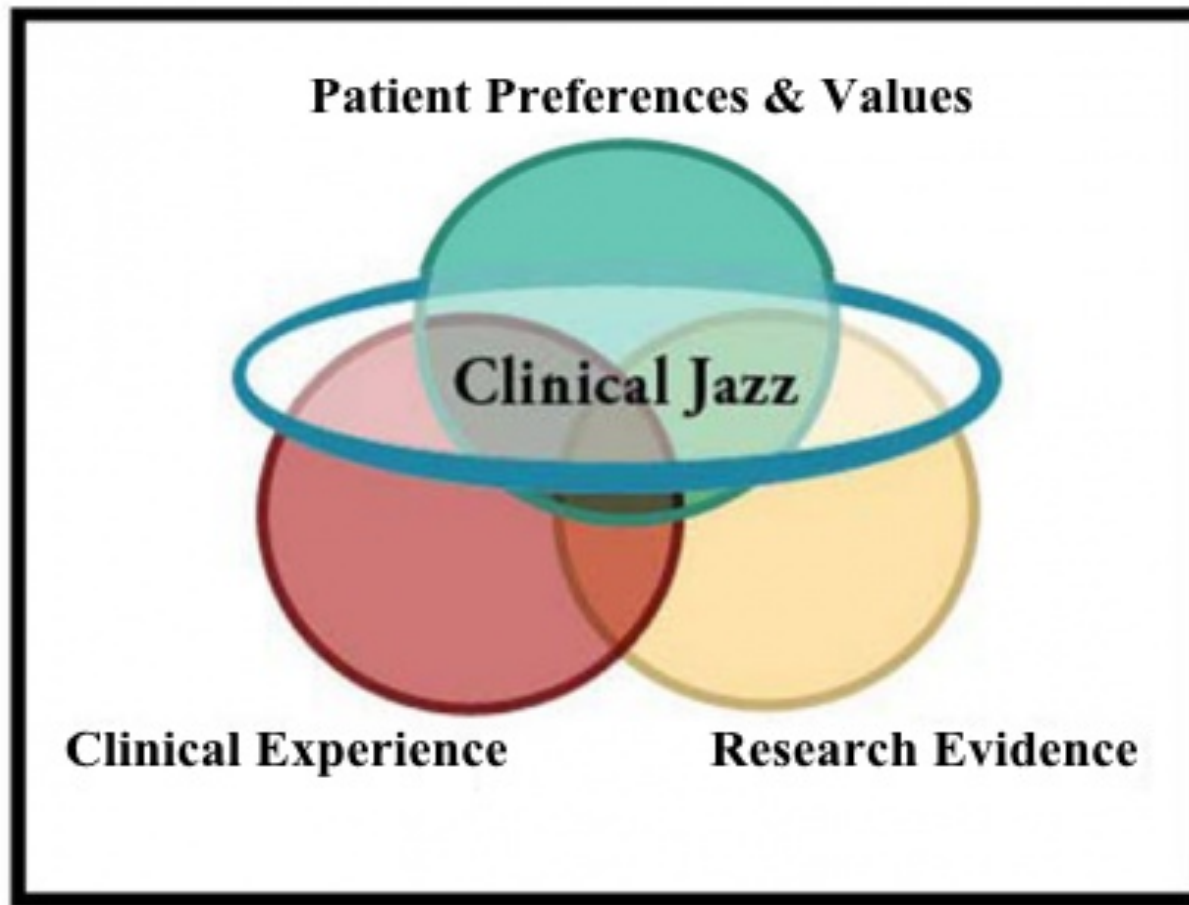
Emphasis on clinical expertise and quantitative data (“the medicine”); systematic reviews and RCTs the “gold standard.”

Evidence-Informed (-Based) Practice (EIP/EBP): Focus on the patient-practitioner relationship (the “practice” of medicine), and a broad evidence base, e.g. quantitative **and** qualitative research.

Emphasis on patient experience (patient preferences and values) and the clinician; in addition to RCTs, includes qualitative data and mixed methods studies that pose questions from the patient's perspective.

Clinical Jazz

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Adapted from R Evans, Northwestern Health Sciences University; original from Shaughnessy, AF et al. (1998) Clinical jazz: harmonizing clinical experience and evidence-based medicine. *J of Fam Prac*; 47(6):425-428.

Wise words...

“How is sense to be made of the fact that a large and prestigious group of clinicians and biomedical researchers seems so utterly hostile to CAM while a large portion of the public (and the educated public at that) seems so attracted to it? ... Moreover, those opposed to such research seemed—as so often happens with polemics—to harp on only the most egregious examples of bad therapies, bad arguments, and bad actors....”

--Callahan, D.* Introduction to *The Role of Complementary & Alternative Medicine: Accommodating Pluralism*. (2002) Hastings Center Studies in Ethics. Washington, D.C.: Georgetown University Press.

*Note: Dr. Callahan is cofounder and former president of the Hastings Center, senior fellow at Harvard Medical School, elected member of the Institute of Medicine and the National Academy of Sciences, and fellow of the American Association for the Advancement of Science.

"The lady doth protest too much, methinks." *

From: Shakespeare, WM. Hamlet



*Interior world of clinicians and biomedical researchers exhibiting *a priori* opposition to CIM

Challenges to CIH Research

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- **Study design:** Poor fit between RCTs and whole person/whole system care.
- **Funding:** NCCIH has historically received <0.05% of the total NIH budget.
2018 NCCIH budget = \$101.8 million; 2018 NIH budget = \$26.9 billion
- **Database indexing:** Use of overly broad subject terms and/or lack of more nuanced terms; pathology-oriented nomenclature.
- **Publication bias:** A well-documented tendency to publish small studies with positive results and withhold those with negative results giving the appearance of a more positive effect than the evidence warrants.

A 2007 study identified an opposite and geographical bias for CIH research, i.e. significantly **more negative studies were published in U.S. than in European journals.**
(Publication bias for CAM trials in the highest impact factor medicine journals is partly due to geographical bias. Journal of Clinical Epidemiology, (Nov 2007), Vol. 60, Iss. 11.)

- **Language & location bias – e.g. [MEDLINE](#):**
 - Indexes 5,200 int'l journals in @40 languages;
 - >40% are U.S. published articles, @93% in English language.

Ekaterini: Acupuncture & East Asian Medicine



- ❑ Teach 3-quarter course series in the DAOM program
- ❑ Search, organization and assessment of resources
- ❑ Preparation for Capstone

Challenges in Acupuncture Research

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- ❑ Speaking another language
 - ❑ indexing limitations
 - ❑ majority of research not in English
 - ❑ Co-opting techniques leading to mis-indexing
- ❑ Peer review problem: no true peers?
- ❑ N of 1 – individualized medicine – not really appropriate to RCT
- ❑ Publication bias
- ❑ Predatory publishing

DAOM Information Literacy

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- Limitations to pool of available research
- Predatory publishing
 - ▣ Researchers from India and China potentially more susceptible to predators
- Peer review
 - ▣ Limits, potential bias, lack of expertise
- Publication bias
 - ▣ e.g. Government funded studies from China

MeSH



- MeSH Headings
- Great tool
- Reflect the way indexers are thinking about a topic

Pilkington, K., & Richardson, J. (2004). Exploring the evidence: the challenges of searching for research on acupuncture. *Journal Of Alternative And Complementary Medicine (New York, N.Y.)*, 10(3), 587– 590.
<https://doi.org/10.1089/1075553041323795>

Available MeSH Terms

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NCBI Resources How To

MeSH [Create alert](#) [Limits](#) [Advanced](#)

Summary

Search results

Items: 5

- [Acupuncture](#)
 1. The occupational discipline of the traditional Chinese methods of **ACUPUNCTURE THERAPY** for treating disease by inserting needles along specific pathways or meridians.
Year introduced: 2002
- [Acupuncture Therapy](#)
 2. Treatment of disease by inserting needles along specific pathways or meridians. The placement varies with the disease being treated. It is sometimes used in conjunction with heat, moxibustion, acupressure, or electric stimulation.
Year introduced: 1990
- [Acupuncture, Ear](#)
 3. **Acupuncture therapy** by inserting needles in the ear. It is used to control pain and for treating various ailments.
Year introduced: 2000
- [Acupuncture Points](#)
 4. Designated locations along nerves or organ meridians for inserting **acupuncture** needles.
Year introduced: 1990
- [Acupuncture Analgesia](#)
 5. Analgesia produced by the insertion of **ACUPUNCTURE** needles at certain **ACUPUNCTURE POINTS** on the body. This activates small myelinated nerve fibers in the muscle which transmit impulses to the spinal cord and then activate three centers - the spinal cord, midbrain and pituitary/hypothalamus - to produce analgesia.
Year introduced: 1990

Limited Hierarchy

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- [Medicine, Chinese Traditional](#)
- [Acupuncture](#)

[All MeSH Categories](#)

[Analytical, Diagnostic and Therapeutic Techniques and Equipment Category](#)

[Therapeutics](#)

[Complementary Therapies](#)

Acupuncture Therapy

[Acupuncture Analgesia](#)

[Acupuncture, Ear](#)

[Electroacupuncture](#)

[Meridians](#)

[Acupuncture Points](#)

[Moxibustion](#)

Dry Needling

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PubMed [Create RSS](#) [Create alert](#) [Advanced](#)

Format: Summary ▾ Sort by: Best Match ▾ Per page: 20 ▾

Send to ▾

Search results

Items: 1 to 20 of 365

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Why NOT acupuncture?

“To some, trigger point dry needling may appear synonymous with Traditional Chinese Acupuncture (TCA); nonetheless, the two are uniquely different.”

“A more modern and alternate model to acupuncture recognizes that inserting a needle into the skin (not necessarily into a MTrP) stimulates A-delta nerve fibers, consequently releasing opioid peptides from interneurons in the dorsal horns.”

Uverzagt, C., Berglund, K., & Thomass, J. (2015). Dry needling for myofascial trigger point pain: A clinical commentary. *International Journal of Physical Therapy*, 10(5), 402–18. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/26075156>

White Paper: Dry Needling

Fan, A. Y., Xu, J., & Li, Y. (2017). Evidence and expert opinions: Dry needling versus acupuncture (I). *Chinese Journal of Integrative Medicine*, 23(1), 3–9. <https://doi.org/10.1007/s11655-016-2630-y>

Fan, A. Y., Xu, J., & Li, Y. (2017). Evidence and expert opinions: Dry needling versus acupuncture (II). *Chinese Journal of Integrative Medicine*, 23(2), 83–90. <https://doi.org/10.1007/s11655-017-2800-6>

Acupuncture vs Dry Needling

“[Practitioners are promoting] dry needling by simply rebranding (1) acupuncture as dry needling and (2) acupuncture points as trigger points (dry needling points).”

“Dry needling simply using English biomedical terms (especially using "fascia" hypothesis) in replace of their equivalent Chinese medical terms.”

“Dry needling is an over-simplified version of acupuncture derived from traditional Chinese acupuncture except for emphasis on biomedical language when treating neuromuscularskeletal pain (dry needling promoters redefined it as "myofascial pain").”

Fan, A. Y., Xu, J., & Li, Y. (2017). Evidence and expert opinions: Dry needling versus acupuncture (II). *Chinese Journal of Integrative Medicine*, 23(2), 83–90. <https://doi.org/10.1007/s11655-017-2800-6>

Western terminology:

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- Acupuncture – “Dry Needling”
- “Trigger Points”

- Also applies to medical conditions:
 - Osteoarthritis? Or Liver Yin?
 - Which is indexed?
 - TCM articles, indexed with Western Terms
 - Western articles NOT indexed with TCM Terms

Example of assigned MeSH Terms

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- Qiqing, C., Hongting, J., Bin, H., Liang, W., Luwei, X., & Peijian, T. (2015). Effect of Huqian Wan on liver-Yin and kidney-Yin deficiency patterns in patients with knee osteoarthritis. *Journal of Traditional Chinese Medicine = Chung I Tsa Chih Ying Wen Pan*, 35(4), 417–21. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/26427111>

Publication types, MeSH terms, Substance

Publication types

[Randomized Controlled Trial](#)

[Research Support, Non-U.S. Gov't](#)

MeSH terms

[Aged](#)

[Drugs, Chinese Herbal/administration & dosage*](#)

[Female](#)

[Humans](#)

[Kidney/drug effects*](#)

[Kidney/physiopathology](#)

[Liver/drug effects*](#)

[Liver/physiopathology](#)

[Male](#)

[Middle Aged](#)

[Osteoarthritis, Knee/drug therapy*](#)

[Osteoarthritis, Knee/physiopathology](#)

[Treatment Outcome](#)

[Yin Deficiency/drug therapy*](#)

[Yin Deficiency/physiopathology](#)

Substance

[Drugs, Chinese Herbal](#)

So, what's the answer?

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- No simple answer
- Knowing to critically assess resources and search options and ask the question *is* the answer.

Angie: Searching—topics, challenges, tips

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▣ Scope of Topic/Question

- Question too broad – capturing non-CIM papers
- Question too narrow – not enough research
- Some cases the research is not RCTs

▣ Goal of the search

- Publication – systematic or scoping review
 - More intensive research involvement
- Publication –Literature review
 - Slightly less intensive, can assist the patron with search
- Case study or patient care – clinician may have patient and needs background info to support diagnosis or treatment
 - Train the patron to search, monitor and check-in

Searching – Types of Output

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▣ Type of Output

■ Systematic review

- Requires quality RCTs
- Data driven

■ Scoping review

- Can be used to plan for Systematic Review
- Broader topic

■ Comprehensive literature review

- Can include many types of research
- Less data driven, more qualitative and summative

■ Case Study

- Background info that sets up/supports the diagnosis

Example – Understand the Goal/Output

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▣ Examples

- Research Assistance/ possible publication

- Fibromyalgia and SIBO

“I want to research treatment of fibromyalgia, I read about SIBO treatment and fibromyalgia and I want to see what other diet affects it, maybe the FODMAP diet, or digestive enzymes, or...”

- Looking for the connection

- A recent paper

- Where to start?

- What is the clinical question?

- Connect between IBS and fibromyalgia

- Not enough research for a systematic review

Example – Clearly Define the Question

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□ Examples

■ Systematic Review

■ Are skin diseases and intestinal dysbiosis related?

■ Many ways to interpret “related”

■ causal, co-morbid, drug induced

■ “Skin diseases” also broad

■ Over 40 MeSH terms included, including hair diseases, nail diseases, sweat gland diseases, and sub-categories of skin diseases; each with their own MeSH tree

■ Must decide if you are going to search specific diseases or class of diseases

■ Need a more defined question

Example – Understand the Terms

▣ Examples

■ Metabolic syndrome and hydrotherapy – Systematic Review

■ Can hydrotherapy treat metabolic syndrome?

- Hydrotherapy is a MeSH term (19,054 results, only 2,427 :noexp)

“External application of water for therapeutic purposes.”

- May need to use more specific terms

- Constitutional hydrotherapy

- Salt bath

- Therapeutic Irrigation – falls under Hydrotherapy (16,627 of the results)

“The washing of a body cavity or surface by flowing water or solution for therapy or diagnosis.”

- Therapeutic Irrigation also falls under Investigative Techniques

Summary

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- Understand the Goal/Output
- Clearly define the question
- Determine the extent of the research available
- Understand the terms and available MeSH

Bastyr University EIP Resources

- EIP Component Tutorials

[ICS 1-3 EIP Tutorial \(Year 1\)](#)

[ICS 4-6 EIP Advanced Tutorial \(Year 2\)](#)

- PNR Rendezvous Webinar, 2014

[Integrating Evidence-Informed Practice \(EIP\) Skills into a Case-Based Medical School Curriculum.](#)

Questions

- *What else would you like to know about our experience that might be helpful for your institution?*

