

CHS 276
Complementary and Alternative Medicine
Fall 2013

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Class Times: Tuesdays
9:00 am – 11:50 am
41-235

Office Hours: Tuesdays 12:00 pm – 2:00 pm
(by appointment, please sign up outside my office)

Objectives of the Course:

The purpose of this course is to provide interested public health and allied health services students with an overview of complementary and alternative medicine (CAM) in the US. The course will cover prevalence and patterns of use, evidence-based research and CAM, some common CAM modalities, and emerging research and programs relevant to CAM. The course serves as one of the departmental elective courses required for the MPH degree in the Department of Community Health Sciences. ASPH core competencies are identified in [...]. For full information on Core Competencies see: <http://www.asph.org/userfiles/WordFormat-DomainsandCompetenciesOnly.doc>

Specific objectives are:

1. To develop a working definition of CAM and to have a basic understanding of the prevalence and patterns of CAM use in the US. To be able to identify differences in CAM use based on sociodemographic and psychosocial characteristics. [C.1., C.6., C.10.]
2. To achieve a general appreciation of evidence-based research and evidence-based medicine, especially as it pertains to CAM effectiveness and efficacy. Also, to be able to identify specific side effects and adverse effects of some important CAM modalities. [A.9., C.9., C.10., E.8., I.7., I.9.]
3. To obtain an overview of common theoretical and conceptual models that have been applied to better explain and understand CAM use. [A.9., D.4., E.1., E.7.]
4. To acquire an understanding of the paradigms, scope of practice, and specific techniques for a set of illustrative CAM modalities that can be categorized according to their etiology and proposed mechanisms of action. [D.4., E.7., I.2., I.7.]
5. To obtain evaluation skills with respect to measuring and assessing CAM effectiveness and efficacy. To develop an appreciation of new study designs that may be more appropriate for assessing CAM's utility. [A.4., A.8., A.9., C.10., E.8., G.6., G.7.]
6. To develop the critical skills necessary to become an informed consumer of CAM and an informed public health professional. To have a basic understanding of the ways in which CAM is being integrated with conventional medicine (or not). [D.1., D.2., D.4., E.4.]

Course Requirements:

Evaluation: Student evaluation is based on the following requirements.

1. **30% of Total Grade: Class participation and weekly write-up of readings.** Students are required to prepare a short (1 page or less) summary of one key topic covered in the readings. (This is not required for the first week.) Attendance is expected at all class sessions and students are expected to participate in discussion and ask questions. Please complete all of your readings prior to class. Each class will include a structured, lecture didactic portion and a more seminar-style oriented portion. The more you participate, the more you will get out of the class!
2. **60% of Total Grade: Final Project.** The final project is an independent research paper on any CAM health topic that is of interest. The topic can focus on research of a specific CAM modality (e.g., acupuncture) or a health condition for which CAM modalities have been found to be useful (e.g., arthritis). The work for this project must incorporate a critical examination and evaluation of the scientific literature on the relevant topic. You are encouraged to draw from meta-analysis from the Cochrane reviews for highest level of scientific evidence. Importantly, the paper should also provide rationale for public health importance and consider possible programmatic implications. The final paper should be 12-15 pages of text, double spaced, and should include references, data tables, or any other pertinent information. The format of references in the paper should follow APA or biomedical (e.g., AJPH) criteria. Additional information will be provided in class. The paper is due on the Friday of the last week of classes (see schedule).
3. **10% of Total Grade: 5 Minute Presentation.** Students are required to also present a very brief (10-12 minutes) summary of a structured abstract on Final Project paper. This abstract is to have the following subheadings: 1) Objectives 2) Design 3) Outcome Measures 4) Results 5) Conclusions. The structured abstract is to be presented and handed in during the final session (week 10). The abstract should not exceed 300 words.

Class Conduct:

In order to develop class discussion, please do not bring your computers to class. They can potentially hinder useful discussion and interaction. Please check that all cell phones are off; of course you are more than welcome to check calls during break.

Required Readings:

Access to the readings may be obtained on the course website or by the website links provided on the syllabus (note: for journals you will need to use your UCLA account to access).

Remember to set up the proxy server in order to access articles: www.bol.ucla.edu/services/proxy

Required:

Readings listed for each class session. All materials, including syllabus and lectures, can be found on the course website:

<https://ccle.ucla.edu/course/view/13F-COMHLT276-1>

Other Useful Information and Websites:

National Library of Medicine, Medline Plus Health Information
<http://medlineplus.gov/>

Food and Drug Administration
<http://www.fda.gov/>

Office of Dietary Supplements, National Institutes of Health
<http://ods.od.nih.gov/>

CAM on PubMed
http://www.ncbi.nlm.nih.gov/pubmed?&orig_db=PubMed&cmd_current=Limits&pmfilter_Subsets=Complementary%20Medicine

National Center of Complementary and Alternative Medicine (NCCAM), National Institute of Health
<http://www.nccam.nih.gov/>

Evidence-Based Reviews NCCAM
<http://www.nccam.nih.gov/health/providers/litreviews.htm>

Cochrane Database of Systematic Reviews
The Cochrane Database of Systematic Reviews is a collection of evidence-based reviews produced by the Cochrane Library, an international nonprofit organization.
<http://www.thecochranelibrary.com/view/0/index.html>

University of Maryland Center for Integrated Medicine
Website has a lot of useful information on CAM and other CAM related resources
<http://www.compmed.umm.edu/default.asp>

COURSE SCHEDULE:

Class Session Date		Content
1	10/1	What is CAM? Prevalence and Patterns of Use in the US
2	10/8	Does CAM Work? Evidence-Based Research and Medicine
3	10/15	Are There “Core Values” in CAM? Models of CAM Use
4	10/22	Whole Systems Medicine Part I Traditional Chinese Medicine, Ayurveda, Naturopathy Homeopathy
5	10/29	Whole Systems Medicine Part II
6	11/5	Manipulative and Body-Based Modalities: Chiropractic, Massage
7	11/12	Mind-Body Based Modalities: Meditation, Yoga, Tai Chi/Qi Gong
8	11/19	Botanical and Nutritional Supplements
9	11/26	Measuring CAM Effectiveness: New Methods and Designs
10	12/3	The Future of CAM and Student Presentations

FINAL PAPERS DUE:

Friday December 6th by 5:00 pm

Session 1. What is CAM? Prevalence and Patterns of Use in the US

Barnes PM, Bloom B, Nahin NL. Complementary and alternative medicine use among adults and children: United States, 2007. National health statistics report; no 12. Hyattsville, MD: National Center for Health Statistics. 2008.
<http://www.cdc.gov/nchs/data/nhsr/nhsr012.pdf>

Nahin RL, Barnes PM, Stussman BJ, Bloom B. Costs of complementary and alternative medicine and frequency of visits to CAM practitioners: United States, 2007. National health statistics reports; no 18. Hyattsville, MD: National Center for Health Statistics. 2009.
<http://www.cdc.gov/nchs/data/nhsr/nhsr018.pdf>

Read appropriate materials on NCCAM website:
<http://www.nccam.nih.gov/>

What is CAM?
<http://www.nccam.nih.gov/health/whatiscam>

CAM Topics A-Z
<http://www.nccam.nih.gov/health/atoz.htm>

Session 2. Does CAM Work? Evidence-Based Research and Evidence-Based Medicine

Key materials for this session are my Power Point lecture notes available on the course website.

RM Institute: The research methods knowledge base. 2006
<http://www.researchmethods.org/rm-knowledge.htm>

Chiappelli F, Prolo P, Cajulis OS. Evidence-based research in complementary and alternative medicine I: history. eCAM 2005;2:453-458.

Chiappelli F, Prolo P, Rosenblum M et al. Evidence-based research in complementary and alternative medicine II: the process of evidence-based research. eCAM 2006;3:3-12.

Evidence Based Medicine Working Group. Evidence-based medicine: A new approach to teaching the practice of medicine. JAMA 1992;268:2420.

Sackett DL, Rosenberg WM, Muir Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. BMJ 1996;312:71.

Wyer PC, Silva SS. Where is the wisdom? I – A conceptual history of evidence-based medicine. Journal of Evaluation in Clinical Practice. 2009;15:891-898.

Session 3. Are There “Core Values” in CAM? Models of CAM Use

Davis MA, West AN, Weeks WB, Sirovich BE. Health behaviors and utilization among users of complementary and alternative medicine for treatment versus health promotion. Health Services Research 2011;46:1402-1416.

Hildreth KD, Elman C. Alternative worldviews and the utilization of conventional and complementary medicine. Sociological Inquiry 2007;77:76-103.

Lorenc A, Ilan-Clarke Y, Robinson N, Blair M. How parents choose to use CAM: a systematic review of theoretical models. *BMJ Complementary and Alternative Medicine* 2009;9 doi:10.1186/1472-6882-9-9.

Sirois FM, Gick ML. An investigation of the health beliefs and motivations of complementary medicine clients. *Social Science and Medicine* 2002;5:1025-1037.

Upchurch DM, Wexler Rainisch BK. A sociobehavioral model of complementary and alternative medicine providers, products, and practices: Findings from the 2007 National Health Interview Survey. *Journal of Evidence Based Complementary and Alternative Medicine* 2012;18:100-107.

Session 4. Whole Systems Medicine Part I: Traditional Chinese Medicine, Ayurveda, Naturopathy, and Homeopathy

NCCAM Website – Overview of Traditional Chinese Medicine
<http://www.nccam.nih.gov/health/whatiscom/chinesemed.htm>

NCCAM Website – Overview of Ayurveda
<http://www.nccam.nih.gov/health/ayurveda/introduction.htm>

NCCAM Website – Overview of Naturopathy/Homeopathy
<http://www.nccam.nih.gov/health/homeopathy>
<http://www.nccam.nih.gov/health/naturopathy/naturopathyintro.htm>

NOTE: Read especially the information on NCCAM funded research to better understand issues regarding evidence. If you are interested in a specific modality, you can do a Cochrane search.

Funk JL, Oyarzo JN, Frye JB et al. Tumeric extracts containing curcuminoids prevent experimental rheumatoid arthritis. *Journal of Natural Products* 2006;69:351-355.

Hankey A. The scientific value of Ayurveda. *Journal of Alternative and Complementary Medicine* 2005;11:221-225.

Jagtenberg T, Evans S, Grant A et al. Evidence-based medicine and naturopathy. *Journal of Alternative and Complementary Medicine* 2006;12:323-328.

Vickers AJ, Cronin AM, Maschino AC et al. Acupuncture for chronic pain: individual patient data meta-analysis. *Archives of Internal Medicine* 2012;17:144-1453.

Session 5. Whole Systems Medicine Part II

NCCAM Website – Overview of Traditional Chinese Medicine
<http://www.nccam.nih.gov/health/whatiscom/chinesemed.htm>

NCCAM Website – Overview of Ayurveda
<http://www.nccam.nih.gov/health/ayurveda/introduction.htm>

NCCAM Website – Overview of Naturopathy/Homeopathy
<http://www.nccam.nih.gov/health/homeopathy>
<http://www.nccam.nih.gov/health/naturopathy/naturopathyintro.htm>

NOTE: Read especially the information on NCCAM funded research to better understand issues regarding evidence. If you are interested in a specific modality, you can do a Cochrane search.

Funk JL, Oyarzo JN, Frye JB et al. Tumeric extracts containing curcuminoids prevent experimental rheumatoid arthritis. *Journal of Natural Products* 2006;69:351-355.

Hankey A. The scientific value of Ayurveda. *Journal of Alternative and Complementary Medicine* 2005;11:221-225.

Jagtenberg T, Evans S, Grant A et al. Evidence-based medicine and naturopathy. *Journal of Alternative and Complementary Medicine* 2006;12:323-328.

Vickers AJ, Cronin AM, Maschino AC et al. Acupuncture for chronic pain: individual patient data meta-analysis. *Archives of Internal Medicine* 2012;17:144-1453.

Session 6. Manipulative and Body-Based Modalities: Chiropractic, Massage

NCCAM Website – Overview of Chiropractic

<http://www.nccam.nih.gov/health/chiropractic/introduction.htm>

NCCAM Chiropractic Spinal Manipulation

<http://www.nccam.nih.gov/health/pain/spinemanipulation.htm>

NCCAM Website – Massage Therapy

<http://www.nccam.nih.gov/health/massage/massageintroduction.htm>

NOTE: Read especially the information on NCCAM funded research to better understand issues regarding evidence. If you are interested in a specific modality, you can do a Cochrane search.

Cherkin DC, Sherman KJ, Deyo RA, Shekelle PG. A review of the evidence for the effectiveness, safety, and cost of acupuncture, massage therapy, and spinal manipulation for back pain. *Annals of Internal Medicine* 2003;138:898-906.

Cherkin DC, Sherman KJ, Kahn J et al. A comparison of 2 types of massage and usual care on chronic low back pain: A randomized controlled trial. *Annals of Internal Medicine* 2011;155:1-9.

Sherman KJ, Cherkin DC, Hawkes RJ et al. Randomized trial of therapeutic massage for chronic neck pain. *Clinical Journal of Pain* 2009;25:233-238.

Session 7. Mind-Body Based Modalities: Meditation, Yoga, Tai Chi/Qi Gong

NCCAM Website – Meditation

<http://www.nccam.nih.gov/health/meditation/overview.htm>

NCCAM Website – Yoga

<http://www.nccam.nih.gov/health/yoga/introduction.htm>

Watch Video: <http://www.nccam.nih.gov/video/yoga>

NCCAM Website – Tai Chi

<http://www.nccam.nih.gov/health/taichi/introduction.htm>

NOTE: Read especially the information on NCCAM funded research to better understand issues regarding evidence. If you are interested in a specific modality, you can do a Cochrane search.

Gaylord SA, Palsson OS, Garland EL, et al. Mindfulness training reduces the severity of irritable bowel syndrome in women: Results of a randomized controlled trial. *American Journal of Gastroenterology* 2011;106:1678-1688.

Jahnke R, Larkey L, Rogers C, et al. A comprehensive review of health benefits of qi gong and tai chi. *American Journal of Health Promotion* 2010;24:e1-e25.

Kiecolt-Glaser JK, Christian L, Preston H et al. Stress, inflammation, and yoga practice. *Psychosomatic Medicine* 2010;72:113.

Session 8. Botanical and Nutritional Supplements

NOTE: There are simply too many botanicals and herbal supplements to individually cover each of them. The following web pages provide good overviews and information on how dietary supplements are regulated in the US. My Power Point lecture notes (posted on the course website) will provide more detail on specific botanicals and nutritional supplements, especially pertaining to active ingredients, safety, and as they are used in different CAM paradigms. Please review those lecture notes prior to class for additional detail.

NCCAM "Herbs at a Glance"

<http://www.nccam.nih.gov/health/herbsataglance.htm>

NCCAM Website – Dietary Supplements

<http://www.nccam.nih.gov/health/supplements/wiseuse.htm>

Read FDA website on Dietary Supplements

<http://www.fda.gov/AboutFDA/Transparency/Basics/ucm193949.htm>

Watch FDA webinar on Dietary Supplements

<http://www.fda.gov/AboutFDA/Transparency/Basics/ucm195691.htm>

Read NIH Office of Dietary Supplements

<http://ods.od.nih.gov/factsheets/DietarySupplements-HealthProfessional/>

Skim the 1994 Dietary Supplement Health and Education Act

<http://www.fda.gov/RegulatoryInformation/Legislation/FederalFoodDrugandCosmeticActFDCA/SignificantAmendments/totheFDCA/ucm148003.htm>

Session 9. Measuring CAM Effectiveness: New Methods and Designs

Debar LL, Elder C, Ritenbaugh C, et al. Acupuncture and chiropractic care for chronic pain in an integrated health plan: a mixed methods study. *BMC Complementary and Alternative Medicine* 2011;11:118.

Kaptchuk TJ, Kelley JM, Conboy LA et al. Components of placebo effect: randomized controlled trial in patients with irritable bowel syndrome. *BMJ Online First* doi:10.1136/bmj.39524.439618.25.

Ritenbaugh C, Aickin M, Bradley R. et al. Whole systems research becomes real; New results and new steps. *Journal of Alternative and Complementary Medicine* 2010;16:131-137.

PCORI. Working definition of patient-centered outcome research.

Session 10. The Future of CAM and Student Presentations

Remember: Presentations are to be only 10-12 minutes in length and should be in the form of a structured abstract. It is acceptable to read your abstract.

Browse Bravewell Report. Horrigan B et al. Integrated medicine in the US: How integrated medicine is being practiced in clinical centers across the US. Feb. 2012. The Bravewell Collaborative.

Herman PM, Poindexter BL, Witt CM, Eisenberg DM. Are complementary therapies and integrated care cost-effective? A systematic review of economic evaluations. BMJ Open 2012;2:e001046.

Upchurch DM, Wexler Rainisch BK. A sociobehavioral wellness model of acupuncture use in the United States, 2007. Journal of Alternative and Complementary Medicine, published online ahead of print. Doi: 10.1089/acm.2012.0120

FINAL PAPERS DUE FRIDAY DECEMBER 6th 5:00 PM