NYU COLLEGE OF ARTS AND SCIENCE

NYU Child Study Center (Child and Adolescent Mental Health Studies, CAMS)

Complementary and Alternative Mental Health Syllabus

Course Number: CAMS-UA 103-001 (14811)

4 credits

Instructors:

Marianne Chai, MD, Clinical Instructor, New York University School of Medicine. Dr. Chai is the Medical Director of the New York Center for Living, supervises training psychiatrists, and is in psychiatry private practice in Manhattan where she specializes in treating children, adolescents, young adults and those struggling with addictive disorders. She received her Bachelor’s degree from Barnard College and her Medical Doctorate from the University of Miami School of Medicine. Dr. Chai completed her residency training in general psychiatry at the NYU School of Medicine, followed by a Child Psychiatry Fellowship at the NYU Child Study Center and an Addiction Psychiatry Fellowship at the NYU Division of Alcoholism and Substance Abuse. Dr. Chai had an extensive background in ballet prior to begin her career in medicine. Her interests are in the history and politics of medicine, the expressive and creative arts therapy, integrative bodywork, spirituality, psychotherapy and group therapy.
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Beata “Bliss” Lewis, MD, Clinical Assistant Professor, New York University School of Medicine. Dr. Lewis is in psychiatry private practice in Brooklyn and Manhattan. She received her Bachelor’s degree in biology from Harvard College and her Medical Doctorate from Harvard Medical School. Dr. Lewis completed residency in general psychiatry at Columbia University and Child Psychiatry Fellowship at the NYU Child Study Center. Prior to her work at NYU, Dr. Lewis taught and studied medical anthropology and psychiatry on a Fulbright Scholarship in Russia. Dr. Lewis is interested in mind-body medicine, yoga, mindfulness, hypnosis, nutrition, herbs and supplements, and psychotherapy.
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Course description:

Complementary and alternative treatments comprise the most rapidly expanding segment of American healthcare. This course will examine the role of non-conventional care in the mental wellness of children, adolescents and young adults. We will survey the historical, clinical, and scientific aspects of traditional medical systems of China and India, mind-body treatments, biologically based alternative therapies, body-based treatments and spirituality. In addition, we will investigate the social, political, and economic forces influencing the role and status of complementary and alternative medicine in America. Students will assess these practices by
participating in class discussion, reviewing research literature, and engaging in experiential exercises.

**Aims of the Course:**

**Knowledge**

Students will be able to:

1. Define Complementary and Alternative Medicine (CAM) and the classification of CAM treatments;
2. List and describe examples of commonly used CAM therapies in the United States;
3. Identify how CAM use is related to socio-demographic characteristics, values, and beliefs;
4. Evaluate the social, political and economic forces shaping the status, role and use of CAM;
5. Describe the potential impact of selected CAM (yoga, Ayurveda, Chinese Medicine, etc.) therapies on stress reduction, illness prevention, and health promotion; and
6. Identify potential safety issues associated with selected CAM therapies, such as interactions with other CAM therapies, interactions with conventional medicine, side effects, and contraindications.

**Skills**

Students will be able to:

1. Compare the conventional medicine paradigm with various complementary paradigms with respect to concepts such as clinical effectiveness, standards of evidence, clinical trials, wellness, healing, and placebo response;
2. Critically evaluate the evidence pertaining to selected CAM therapies for the prevention and treatment of specific mental health conditions;
3. Reflect on their own culturally based values and belief systems, attitudes, and CAM related knowledge, and describe how these might affect their approach to self-care, health, wellness, and healing; and
4. Identify the key concerns with research on CAM.

**Syllabus:**

**Session 1. Introduction to Alternative, Complementary and Integrative Medicine**

In the first session we will define alternative, complementary and integrative medicine and review the prevalence of various non-conventional approaches. According to the National Center for Health Statistics, the use of CAM has increased markedly. In 2007, 12 percent of American children and 40 percent of adults used CAM. The same year Americans spent $33.9 billion out of pocket on visits to CAM practitioners and purchases of CAM products and made 354 million visits to practitioners of CAM. We will analyze factors leading to increased CAM use and discuss the implications of these trends for American medicine. We will review the principles of integrative medicine. We will review course requirements and expectations and outline the overall objectives of the course.
Required Reading:
   http://pediatrics.aappublications.org/content/122/6/1374.long

Session 2. History of Complementary & Alternative Medicine in America, Homeopathy (MC)

We will survey the history of alternative medicine in America. Special attention will be given to the political and economic factors driving this longstanding controversy, and contrast that with the wider acceptance of alternative medical practices today. We will broadly examine the most popular Jacksonian Era health practices, and provide a detailed overview of homeopathy.

Required Reading:

Optional Reading:

Session 3. The Science of Exercise: Movement in Medicine (MC) & Expressive Psychotherapies (MC)

Expressive therapies, such as art, music, and drama therapy, encourage self-awareness through creativity and sensory exploration. These modalities are suggested to help individual’s process and communicate nonverbal memories, and alter emotions, feelings and mood states. We will provide a broad introduction into this vast field focusing on the evidence for the therapeutic use of music therapy, followed by an experiential in class exercise.

In the second half of class we will turn our attention to exploring the science of exercise. Growing evidence for the neuroprotective effects of exercise suggests a role for aerobic exercise in treatment and prevention of mental disorders in children and adolescents. We will discuss the neurobiology of exercise focusing on Brain Derived Neurotrophic Factor (BDNF). BDNF mediates many of the benefits of exercise on the brain by exerting protective effects on neurons, promoting synaptic plasticity, and stimulating neurogenesis.

Required Reading:

Optional Readings:

**Session 4. Spirituality and Psychedelic Therapy (MC)**

Spirituality is complex and multidimensional, if not controversial. There is some evidence to suggest that faith and attendance at religious functions has health benefits. Current research presents itself with experimental design problems, difficulty with endpoint evaluations, and for some, issues of ethical or moral boundaries. In this class we will examine the current research on spirituality, religion, prayer and health outcomes and explore reasons for an increased interest in spirituality. We will also examine the history of hallucinogenic drugs as medical treatments, and explore the resurgence of interest and insights in the field.

**Required Readings:**

**Optional Reading:**

**Session 5. Traditional Medicine Systems: Chinese Medicine (MC)**

Traditional Chinese Medicine (TCM) is one of the most complex, highly developed traditional healing theories in the world. Like many other types of traditional medicines, TCM, has its own
unique cultural and philosophical background. It emphasizes harmony with the universe, balance, diet and prevention, with a focuses on stimulating the body's natural curative powers. In this class, we will broadly survey the historical and philosophical background of TCM, followed by an introduction to the key concepts, diagnostic techniques and therapies of TCM.

**Required Readings:**

**Optional Reading:**

**Session 6. Special Topics in Alternative Medicine, Extra-Credit group presentations, Mid-term Review**

Students may earn up to 2% extra credit towards their midterm grade by doing a group presentation. Presentations will be based on having an experience of a CAM treatment modality covered during the first half of the class. For example, each student in the group will engage in a TCM practice, exercise regimen, homeopathic intervention, expressive therapy, dance, spiritual experience or a special topic approved by Dr. Chai. Students will present on the history of the modality, describe the mechanism, and describe the experience of the activity. Groups will consist of between 3-5 students for a 7-10 minute presentation. Each student will submit a one-page research review of the topic and description of the experience, and is responsible for posting it on NYU Classes.

**Session 7.**

*MIDTERM EXAM + Extra-Credit group presentations*
MIND-BODY MEDICINE (SESSIONS 8, 9, 10, 11)

Session 8. Yoga and Ayurveda (BL)

Yoga is becoming increasingly popular for promoting wellness and is gaining increasing research evidence for treatment of mental and physical conditions. Yoga was developed in India during the Vedic period and aims to bring the body, mind and spirit into harmony through a system of ethics, exercise, breathing and meditation. Yoga is a component of various evidence-based stress reduction programs, such as the Mindfulness Based Stress Reduction Program. Ayurveda originated in India several thousand years ago as a comprehensive medical system and a lifestyle guide. The goal of Ayurveda is a balance of the body, mind and spirit to create health and prevent illness. Ayurvedic treatments aim to cure disease by cleansing the body of substances that are considered toxic. Ayurveda recommendations typically include lifestyle changes, herbs, special diets, yoga, mediation, and massage. Students will experience a breathing and yoga practice in class. Please wear comfortable clothing to class.

Required Reading:


Extensive research evidence documents the connection between the mind, body and belief systems. We will continue learning about the mind-body connection and the science behind the placebo response.

Required Readings:

Session 10. Mind-Body: Mindfulness and Meditation (BL)

PAPERS DUE BEGINNING OF CLASS by email word document and a printed copy in class

Emerging evidence suggests that mindfulness and meditation practices change the biology of the brain and affect mood and physiological function of those who meditate. The concept of mindfulness originated in Eastern philosophy, yet it is neither esoteric nor religious in nature. Mindfulness consists of non-judgmental, present moment awareness. Mindfulness training aims
at gradually strengthening the ability to observe instead of reacting, allowing individuals to gain a richer and more accurate perception of reality. Numerous psychotherapeutic approaches, including dialectical behavior therapy (an evidence-based psychotherapy for individuals who are chronically emotionally unbalanced) teach mindfulness. A body of evidence demonstrates that programs utilizing mindfulness benefit a great variety of patients. We will study the Eastern philosophy roots of mindfulness and Buddhist psychotherapy, and the modern applications of mindfulness to mental health treatment. We will experience a mindfulness practice in class.

Required Readings:

Optional Reading:

Session 11. Mind-Body: Clinical Applications of Mind-Body Medicine (Biofeedback & Hypnosis) (BL)

Biofeedback involves receiving information about one’s own physiological states to alter brain activity, blood pressure, heart rate, and other bodily functions typically not controlled voluntarily. Heart rate variability (HRV) is a type of biofeedback and has been found to be a marker of physiological resilience, and emotional flexibility. Hypnosis is used to alter maladaptive psycho-physiological responses through encouragement of narrowly focused attention and heightened responsiveness to new ideas and associations. The use of hypnosis in children has been documented since ancient times in various cultural accounts of induction of trance-like states in healing, religious and initiation rituals.

Required Reading:
1. Book: David Servan-Schreiber. The Instinct to Heal: Curing Depression, Anxiety and Stress without Drugs and Without Talk Therapy (pp. 1-98).

BIOLOGICAL TREATMENTS (SESSION 12 & 13)

Session 12. Nutrition 1 (BL)

The use of herbal medications and dietary supplements has increased markedly in the United States since the passing of the Dietary Supplement Health and Education Act (DSHEA) of 1994. During sessions 10 and 11, we will discuss how these products are employed today among children and adolescents in America. Recent studies indicate that children’s diets are not balanced and that only one percent of children meet food pyramid guidelines. We will explore the role of nutrition in child and adolescent mental illness and consider some of the sociopolitical aspects of the diet of American children. We will discuss nutritional deficiencies, organic and locally grown food, elimination diets, and various diets.

Required Readings:
Optional Extra Credit 2%:
1. Watch a food/diet/nutrition related documentary film or read a food/diet/nutrition related book and implement a change to your diet. Monitor how you feel after implementing the diet change. Please use your good judgment and be reasonable and safe. Write a 1 to 2 page summary of the film or book and your experience with implementing a change to your diet. Please email your summary to Dr. Lewis by Tuesday evening before class.

OPTIONAL FINAL EXAM REVIEW SESSION APRIL 30TH 8:45AM – 9:30AM

Session 13. Nutrition 2: Nutrition and Dietary Supplements (BL)

As we continue our discussion of nutrition and discuss dietary supplements and herbal medications.

Required Reading:

Session 14. Final Exam, Conclusions and The Future of Complementary and Alternative Mental Health

First half of the class will be dedicated to the in-class final exam. In the final session we will engage in a class discussion about the future direction of American medicine, addressing questions such as: Why CAM is highly popular despite limited research evidence? What are the implications of CAM use for allopathic medicine? What are the benefits and risks of integrating CAM approaches into conventional medicine practice? What is the role of integrative medicine in modern society? We will also revisit the social, political, and economic factors that determine the status of CAM and influence the future developments in integrative care. Students will complete their presentations and share their personal experiences with CAM during the course.

Required Readings: NO NEW READINGS, REVIEW FOR THE FINAL EXAM

Course Book List with Amazon.com new book prices. Audiobooks are OK.
1. The Heart of Yoga. $12
3. The Instinct to Heal: Curing Depression, Anxiety and Stress without Drugs and Without Talk Therapy. $10
5. Full Catastrophe Living: Using the Wisdom of Your Body and Mind to Face Stress, Pain and Illness. $14
6. Optional: Thoughts without a Thinker. $12
8. Optional: Spirituality and the Healthy Mind: Science, Therapy, and the Need for Personal Meaning. $15 (new)/$6 (used)
9. In Defense of Food: An Eater’s Manifesto. $10

Grading

1. Final Exam (35%). The final exam will consist of multiple choice and short answer questions covering the material presented in class and in the assigned readings. Final exam will be given in the first half of class on Dec 14th, 2013.

2. Midterm Exam (30%). Midterm exam will be given in class on June 19th. The midterm will cover material covered in reading and lecture for classes 1 to 6. The midterm will include multiple choice, fill in the blank, and short answer questions.

3. Paper (30%). 5-7 page paper on a CAM topic of your choice, addressing the following:
   (1) Pick a treatment modality (ex. Mediation, yoga, acupuncture, St. Johns wort, multivitamin, EMDR, biofeedback, HRV, dance, exercise, prayer, psilocybin, Ayurvedic herbs, chiropractic etc.) and a mental health issue or category (ex. Depression, anxiety, insomnia, anger, stress, overeating, ADHD, trauma in children, etc.) While it is easier to find articles on common topics such as mindfulness or acupuncture, we encourage you to write on whatever interests you and less common topics.
   (2) Find at least 3 research articles published in scientific journals relevant to your topic of choice. You may go to NYU Medical Library website and access databases such as PubMed with Full Text. http://hsl.med.nyu.edu/journals-databases-and-books.
   (3) Write an introduction, thesis, body of paper and a conclusion.
   (4) A thesis is a sentence that identifies the main idea, central purpose of your essay. What are you trying to say in your paper? It serves as the organizing principle for the essay and appears at the end of the introductory paragraph. (ex. “EMDR is a well established treatment for trauma in adults, but additional research is needed to prove that it is safe and effective for children”; or “Omega 3 fatty acids may be helpful for ADHD in children.”)
   (5) In your paper describe the research studies you found and how they support your thesis statement. Think about how good the studies are and how strongly do these studies support your thesis?

The paper is due by class time as an email attachment word document file (PDF file or other formats will not be accepted) to bliss@beatalewismd.com and Marianne.chai@nyumc.org. Papers turned in after the beginning of class time will be penalized 10% of grade per week of delay. Please bring printed, stapled paper to class. Please pick your topic early and ask if you are not sure if your topic is suitable.
4. **Class Participation, Reading (5%).** Students will be evaluated based upon their participation in class as evidenced by their comments, preparation, contribution to class debates, and evidence of knowledge of the reading assignment.

**** Laptop and other electronic device use is not permitted in class as it interferes with class participation ********

5. **Attendance Policy and Extra Credit.** Please make an effort to be present for every class and sign the attendance sheet. We understand that various circumstances may come up and perfect attendance is not always possible, so we allow missing 2 classes without providing an excuse. If you miss a third class please provide appropriate excuse/documentation from doctor. **You can earn 5% extra credit by having perfect attendance.**

*The doctor of the future will give no medicine, but will interest his patient in the care of the human frame, in diet and in the cause and prevention of disease.*

- THOMAS EDISON