Final Exam!
Tuesday, December 10, 2019 @ 11:00 am
DL 121

THERE IS NO MAKEUP FINAL EXAM!!!!
Lecture 21
Complementary and Alternative Medicine

Complimentary and Alternative Medicine

1. Conventional Medicine vs. CAM
2. Natural Products
3. Mind and Body Interventions
4. Manipulative and Body-Based Practices
5. Alternative Medicine Systems
Conventional Medicine vs. CAM

Conventional Medicine
Dominant health care system - U.S., Canada, much of Europe
Conventional Medicine

Illness is the result of pathogens like viruses and bacteria or organic changes in the body

Conventional Medicine

Health is restored when the medical practitioner treats the illness with drugs, vaccine, or surgery
Conventional Medicine

The body is like a machine; illness is a sign that a part needs to be fixed

Reductionist thinking, the whole is not greater than the sum of its parts

Conventional Medicine

Illness is defined by a set of symptoms that are similar in everyone who has the illness.

Everyone gets the same treatment
Conventional Medicine

Investigations into causes of disease and treatments for them are done using the scientific method.

The Scientific Method
- Observation
- Question
- Hypothesis
- Research
- Data
- Experiment
- Conclusion

Conventional Medicine

- Practitioners:
  - M.D. or D.O. (medical degrees)
  - Dentists, optometrists, podiatrists, nurses, physical therapists, dietitians, midwives, medical assistants, etc.
Complementary and Alternative Medicine

The Body - believed to have an inherent balance or ability to heal itself

Complementary and Alternative Medicine

The whole person is treated (physical, mental, emotional, and spiritual), not reductionist
Complementary and Alternative Medicine

Each person is unique, so treatment is individualized

Many practices use a complex combination of interventions, often involving many medications at the same time along with recommended behaviors
Complementary and Alternative Medicine

*Alternative Medicine* - group of practices used as an alternative to conventional medicine

Complementary and Alternative Medicine

*Complementary Medicine* - group of practices used in tandem with conventional medicine (Acupuncture after surgery)
Complementary and Alternative Medicine

*Integrative Medicine* - use of conventional medicine in combination with CAM practices that have been proven safe and effective

- Complementary and Alternative Medicine (CAM) - not considered to be conventional at this time, but...
Complementary and Alternative Medicine

National Center for Complementary and Integrative Medicine (NCCIM) 1998
– Institute of the National Institute of Health (NIH)
– Began as the Office of Alternative Medicine (1991)
– Support scientific investigation of complementary and alternative healing practices
– Trains those researching CAM practices
– Disseminates authoritative information

CAM Practices

• Two main types of complementary health approaches
  1. Natural Products (i.e., Echinacea, willow bark, etc.)
     No use of pharmaceutical drugs, is all natural
CAM Practices

• Two main types of complementary health approaches
  2. Mind and Body Interventions - focus on the interaction between the brain, body, and behavior...

CAM Practices

• People use CAM for a variety of reasons
  – Improve health and well-being
  – Relieve symptoms of a chronic disease or illness
  – A more holistic approach to health
  – Most often used in the treatment of pain
Diseases/Conditions

CAM Practices and Providers

Training, licensing, and credentialing of CAM providers varies by state
Complementary Health Approaches: Natural Products

Dietary Supplements

- CAM practitioners occasionally recommend dietary supplements
  - High-dose vitamin supplementation; megavitamins (Vit. C for colds?)
- Supplementation of minerals and trace elements (e.g. zinc)
- Probiotics to restore balance of bacteria and yeast (Symbiotic relationship)
Herbal Medicines

• Vast array of products derived from plants and other natural substances (Progesterone, Digitalis, etc.)

• Herbal remedies rooted in history

• Currently being investigated by researchers in controlled clinical studies

• Safety is major concern
  – Contamination
  – Lack of standardization
  – Drug Interactions
  – Ephedra

Diet!

Therapeutic diets involve reduction or removal of certain types of foods for a set time period

**THERAPEUTIC DIETS**

*Diabetic diet – low GI foods, high fibre*
*Heart diet – low fat, low cholesterol, low salt*
*Renal diet – low potassium, low protein*
*Bowel health – high fibre*
*Food intolerance – gluten, dairy*
*Food allergy – peanut, soy, fish*
*Malnutrition – high energy, high protein*
*Wound management – high protein, energy*
Mind and Body Interventions

• Three types of mind and body interventions:
  – Energy Therapies - flow of vital energy through the body
  – Mind-Body Therapies - state of mind affects the health of our body
  – Manipulative and Body-Based Therapies - help our body heal itself
Acupuncture and Acupressure

- Acupuncture and acupressure are both methods used to stimulate acupoints.
- Acupuncture - hair-thin needle, acupressure - firm pressure to massage.
- Acupuncture triggers a stronger stimulation to activate the body's innate healing ability than does acupressure.
Moxibustion

- Moxibustion – application of heat by burning a herb called *moxa*

T’ai chi

Moving Meditation – incorporates breathing, stretching, and stimulation of various organs and organ systems

Reduce stress, promote relaxation; and improve aerobic fitness, strength, flexibility, and coordination
Magnetic-Field Therapies

Used to treat pain. No explanation as to how it might work. The available evidence does not support the use of magnets for relief of pain.

Hypnotherapy

- The use of intentional relaxation and focusing exercises to produce an altered state of consciousness (trance-like state) in which a person is more responsive to suggestions, or better able to control pain.

About 10 to 15% of the adult population is highly susceptible to hypnosis, and 70 to 80 percent is moderately susceptible. Children are more susceptible than adults.
Manipulative and Body-Based Practices

Focuses on the body’s structures and systems, such as bones, joints, muscles, soft tissues, and circulatory system.
Manipulative and Body-Based Practices

Osteopathic Medicine - considered a form of conventional medicine; healing through manipulation and focus on the whole person, Andrew Taylor Still

Manipulative and Body-Based Practices

Chiropractic Medicine - belief that illnesses are the result of subluxation of the spine, Daniel David Palmer
Manipulative and Body-Based Practices

*Massage Therapy and Bodywork* - pressure aimed at increasing blood flow and inducing relaxation
Traditional Chinese Medicine

- A well-developed medical system – nearly 3,000 years
- Focuses on maintaining or restoring the physical, mental, and spiritual well-being of the individual

Yin-Yang

Yin – represents the inactive, internal, cold and dark
Yang – represents the active, external, hot, and bright
Good health requires a balance between the two; if not the chi is disrupted and poor health results
Traditional Chinese Medicine

• Illness - your qi (chi) or energy force is disturbed or imbalanced (yin-yang principle)

• Diagnosis - signs of imbalance

• Methods - herbal medicine, acupuncture, acupressure, and dietary modification

Ayurveda

• India - 5,000 years

• Emphasizes balance - body, mind, and spirit and sets a goal of restoring harmony to the individual
Ayurveda

• Three *Doshas* are in balance, you are considered in good health

1. *Vatta* - energy of movement; consists of space and air

2. *Pitta* - energy of metabolism and digestion; consists of fire and water

3. *Kapha* - energy that forms body structure and holds cells together; consists of earth and water
Ayurveda

- Developed by German chemist and physician Samuel Hahnemann

- **Very Controversial** - appears to be no significant associated risk associated except possible delay of diagnosis, other treatments*

  - *Little definitive evidence that Homeopathy works
  - Difficult to study because of the uniqueness of treatments among individuals
Homeopathy

Three principles:

1. Law of Similars – “Like cures like.”
   substance that causes disease in a healthy person can cure the same symptoms in a sick person
   
   Causes fever in healthy person
   Given to a sick person to cure fever

2. Principle of Minimal Dose - remedies intended to encourage the body to heal itself; smallest possible dose will have greatest effect

3. Every patient is unique (personality, emotional and physical responses)

Made from diluted duck liver and heart.
$15 million worth sold in the US yearly.

*these 'Uses' have not been evaluated by the Food and Drug Administration.*
Federal Trade Commission

• The rules require that either the homeopathic medicines back up their health claims with scientific evidence or they must add information to bottles:

1. First, they must communicate that there is no documented scientific evidence that the remedies work.

2. Second, there needs to be a disclaimer that the theory of homeopathy is based on ideas dreamt up in the 1800s and are not accepted by modern medicine.

Naturopathy

• Body has the ability to heal itself. No drugs, but through nutrition

• Dietary modification, nutritional supplementation, herbal remedies, hydrotherapy, massage, homeopathy, acupuncture, biofeedback, stress reduction techniques, and lifestyle counseling
Native American Medicine

• Healing and spirituality merge
• Physical well-being associated with spiritual balance; illness associated with imbalance

![Diagram showing Native American symbols and elements]

Native American Medicine

• Healers have spiritual powers or ties to the supernatural: shamans, medicine men/women

![Image of Native American healers]
Native American Medicine

• Ability to heal is seen as a gift and often passed down through several generations of a family

• Medicinal uses of roots, herbs, and other plants

• Remedies may include prayer, healing touch, herbal teas, tinctures, charms, and healing rituals

Making Informed Health Care Choices

• Conventional medicine, CAM, and self-care are three intersecting areas of healthcare

• Consumers need to do the following:
  – Consult with their conventional care physician
  – Research the therapy and provider
  – Be wary of commercial websites that are selling a product