Objective 1.06

Understand the fundamentals of wellness

Essential Questions

1. What are elements of healthy behaviors?
2. What are healthy behaviors
3. What practices promote wellness?
4. How do risk factors affect wellness?
5. How do alternative therapies affect wellness?

I. Healthy Behaviors

A. Wellness
   i. Optimal health with a balance in physical, mental, and social health
   ii. Contributes to the prevention of disease
   iii. Improves the quality of life

B. Elements of Wellness
   i. Physical Wellness
      1. Diet – Eating within the Dietary Guidelines for the ADA for your age, gender and stature; go to (http://www.bmi-calculator.net/bmr-calculator/) to calculate your BMR, then go to (http://loseweightbuildmuscles.com/harris-benedict-bmr-calculator.html) and calculate your daily calorie requirements according to your activity level; be honest with yourself
      2. Physical activity – go to (http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html) to determine the required activity level for your age
      3. Health screenings examinations – prevention is the cure and regular yearly physical check-ups are recommended, how often this should occur depends upon your age, health status, and, for many people, their insurance coverage or the ability to pay (http://www.wisegeek.com/how-often-should-i-get-a-physical.htm)
   ii. Emotional Wellness
      1. The ability to adjust to life’s changes – for teens it involves school, family breakdown, body image, finances, criticism and popularity, just to name a few (http://www.ehow.com/info_8143126_top-ten-stressors-teen.html)
      2. Being optimistic – looking at the brighter side of life or looking at the positive things instead of the negative
      3. Being able to cope with stress – teens adapt to stress in a variety of ways, the top five ways include:
         a. Developing a positive attitude
b. Support from family and friends

c. Maintaining good health

d. Physical exercise

e. Helping someone else

4. Enjoying Life! This speaks for itself – don’t get caught up in others’ problems. Remember that life is a precious gift; use it wisely! ME!

iii. Mental Wellness

1. Continue lifelong learning
   a. The continuous building of skills and knowledge throughout your lifetime
   b. A quote from Henry Ford “Anyone who stops learning is old, whether at twenty or eighty. Anyone who keeps learning stays young. The greatest thing in life is to keep your mind young.” (http://sunrisecommunityliving.com/2011/03/02/lifelong-learning/)

2. Learn from life experiences
   a. Look at criticism as constructive and not destructive
   b. Listen to the stories of your elders, they are wiser than you think
   c. If something doesn’t turn out the way you would have liked, correct it and move on.

3. Use creativity to solve problems
   a. Look outside the box
   b. Try doing something a different way

iv. Social Wellness

1. Affection
   a. is considered a process of social interaction between two or more organisms
   b. It is never given or received but experienced
   c. It is not something we can experience alone, we must have people around us to have this experience
      (http://www.biopsychology.org/biopsychology/papers/what_is_affection.html)

2. Communication – The concept of communication wellbeing can be seen as a measurement tool to assist in defining the communication skills an individual needs when it pertains to their health
3. Honesty — **integrity**
   a. Having moral **uprightness**, which is the quality, condition, or the characteristics of being **fair, truthful and morally upright**
      ii. It is truthfulness, **candor or sincerity**
      iii. **How is this important for social wellness?**
   b. Interaction with others - allows the individual to **talk through** their problems and feel **accepted** and to be understood, which is important for good **mental health**
      (http://www.traumaregister.co.uk/Articles/Human_Health_Contact.htm)

4. Loyalty
   1. The willingness to make some sort of **investment or a personal sacrifice** that will enable an individual to **strengthen** a relationship
   2. To have a friendship requires loyalty from your friends
   3. If there is a lack of loyalty a friendship will **cease to exist**
   4. It is also necessary to achieve the goals of an organization as well
      (http://wiki.answers.com/Q/Why_is_loyalty_important)

v. Spiritual Wellness
   1. This is a very personal matter that involves **values and beliefs**, which provide a **purpose** in our lives
   2. This definition **varies** among individuals, but generally is still considered to be helpful in the search for **meaningful purpose** in our existence
   3. It helps the individual to strive for a **state of harmony** with themselves and others
   4. It gives **meaning to life**
   5. It involves the belief in a **higher authority**
   6. It involves **practicing** religious beliefs
      (http://wellness.ucr.edu/spiritual_wellness.html)

C. Practices that **promote wellness**
   i. Good Nutrition
      1. Nutrition relates to food and all **body processes** requiring food
      2. Promotes a healthier **body and mind**
      3. Aids in:
         a. **Resistances to illness**
         b. **Weight management**
      4. Functions of good nutrition
         a. Provides **heat** — provides energy for muscle use, which, when used, creates heat
         b. **Promotes** growth of cells, tissues, and organs to support life
c. Repairs tissue – by consuming the appropriate nutrients it helps to support your body’s response to the inflammation process (http://citruspie.com/chiropractic/nutrition-helps-rebuild-and-repair-injured-tissue/)

d. Regulates body processes - eating a wide variety of fresh/whole or unprocessed foods is more beneficial than diets based on processed foods, whole plant-type foods slows digestion to allow better adsorption and a better balance of essential nutrients per calorie, which results in better management of cell growth, maintenance, & mitosis; in addition to a better regulation of appetite and blood sugar (http://en.wikipedia.org/wiki/Nutrition)
(http://www.cfsan.fda.gov/~dms/qatra2cl.gif in http://www.cfsan.fda.gov/~dms/qatrans2.html#s3q2)

5. The food groups include the following:

a. Grains – are an essential part of a person’s healthy diet, especially whole grains; contain 4 kcal per gram

   i. They are a great source of complex carbohydrates and some important vitamins and minerals and they are low in fat

   ii. You must have 6-8 oz. per day

   iii. Half of your daily intake should be from this group

   iv. Types included:

   1. Whole or unrefined grains, those that have not been processed to remove (milled) the bran and germ; a great source of fiber and other nutrients; example is brown rice

   2. Refined grains – those grains that have been milled, this strips out both the brain and germ, which gives them a finer texture and makes them last longer; unfortunately, it also removes many of the nutrients; examples are bread, cereals, crackers, etc

   3. Enriched grains- this means that those grains that have been milled have had some of the nutrients are added back i.e. B vitamins, but the fiber is still missing; adding back is not a natural process (http://www.mayoclinic.com/health/whole-grains/NU00204)
b. Fruits – another part of a healthy diet and complex carbohydrates; contain 4 kcal per gram.
   i. They are a good source of fiber, nutrients and antioxidants.
   ii. You should have 1 ½ to 2 cups per day
   iii. Helps to improve bowel functioning, helps to increase transit time and satiation (feeling full), and decreases the risk of certain diseases, i.e. obesity, diabetes, constipation, etc.
   iv. As compared to vegetables, they are a better source of carbohydrates. (http://www.iloveindia.com/nutrition/carbohydrates/carbohydrates-in-fruits.html)

c. Vegetables – the edible plant or part of a plant, usually the leaf, stem or root; contain 4 kcal per gram.
   i. Some are consumed raw, some cooked, while others must be cooked in order to be eaten
   ii. You should have 2-3 cups per day
   iii. Another form of carbohydrate
   iv. Some vegetables are botanical fruit's, those that develop from the ovary of a flowering plant, such as a tomatoes, eggplants, and bell peppers. (http://en.wikipedia.org/wiki/Vegetable)

d. Protein – these are the building blocks of body tissue and also serve as a fuel source; contain 4 kcal per gram.
   i. Contain nine essential amino acids that cannot be created from other compounds by the body and therefore must be taken in as food (http://en.wikipedia.org/wiki/Amino_acids)
   ii. They are found in animal sources like meat, milk, fish and eggs
   iii. You should have 5-7 oz. per day; ex. 1 ounce of meat = 1 serving, a normal serving for a meal would be the size of a deck of cards or 3 ounces
   iv. They are also found in plant sources like whole grains, pulses, legumes, soy, fruits, nuts and seeds
   v. Plant foods must be consumed in a wide variety in order to obtain all of the essential amino acids needed by the body (http://en.wikipedia.org/wiki/Protein_in_nutrition)

e. Dairy – substances that are produced from the milk of mammals, i.e. cows, goats, sheep, and water buffalo
i. It contains calcium that is necessary for strong bones and teeth.

ii. It is also considered a protein, which is excellent for muscle repair and growth.

iii. You should have 3 servings per day; ex. 1 cup of milk = 1 serving.

iv. As a protein, it has 8 to 9 kcal per gram, but it also has carbohydrates @ 13 kcal per gram and as fat it has @ 8 kcal per gram (whole milk).

v. Therefore, it is what makes a body good.


f. Water is also a necessary nutrient; most people don’t think of water as a nutrient.

i. Our bodies cannot store water, therefore, it must be replenished everyday.

ii. It is vital for every metabolic process; it is basis for blood, digestive juices, urine and perspiration; it is also in our muscles, fat and bones.

iii. The elderly and babies are extremely vulnerable to the lack of this nutrient.

iv. Some individuals, who do not receive an adequate amount of water, are at a greater risk for developing kidney stones and women are more likely to develop urinary tract infections.

v. Humans can go weeks without food, but only last a few days without water.

vi. The body is 55-75 per cent water.


6. Other guidelines for good nutrition

a. Sodium – this course states you should consume less than 2,300 mg of sodium daily; about 1 tsp.

i. Food labels give you content of sodium in the foods that you consume, the less the better for your heart.

ii. If a product contains 35 to 140 mg of sodium per serving it is considered to be low Sodium; it is better to stay between 1200 to 1500 mg per day.

iii. To keep your sodium low follow these tips:

1. Keep away from processed meats such as salami,
bologna, ham, hot dogs and cheese
2. Keep away from chips, cookies, and other types of snack foods
3. Read labels of can goods and select those with low sodium
4. Eat as much fresh fruit and vegetables as you can
5. Don't cook with salt, and if you must have some, only sprinkle a few crystals of sea salt; iodized
(http://www.wellsphere.com/healthy-eating-article/what-should-be-the-normal-salt-intake-per-day-for-adult/788134)

b. Potassium
   i. It is recommended to consume at least 4.7 grams per day
   ii. Athletes may have to consume more
   iii. Potassium works with Sodium to maintain our water balance
   iv. Excessive perspiration or vomiting will cause potassium loss
   v. Potassium rich food includes:
      1. Fish
      2. Meat
      3. Fruits
      4. Vegetables
   vi. You must eat a variety of these foods to consume an adequate amount of potassium
      (http://www.ext.colostate.edu/pubs/foodnut/09355.html)

7. Food Safety
   a. Clean your hands and work surfaces, as well as food products
   b. Separate raw and cooked foods
   c. Be sure to refrigerator food properly
   d. Avoid unpasteurized milk, eggs, and juices
   e. Avoid raw meats and poultry

ii. Physical Activity
   1. Exercising regularly increases your fitness level
   2. It also plays a role in the prevention of chronic illness
   3. The benefits of exercise include:
      a. It helps to control your weight
      b. It combats health problems and diseases
      c. It improves your mood
      d. It boosts your energy levels
e. It helps you sleep better
f. It can improve your libido
g. It can also be fun
4. What risk factors does exercise reduce?
   a. High blood pressure
   b. Diabetes
   c. Obesity
   d. High levels of triglycerides
   e. Lower levels of LDL
   f. It reduces the risk for colon cancer
   g. It reduces the risk of stroke as well
5. How much exercise should an individual have?
   a. It is recommended that you have at least 30 minutes, most days of the week, to reach a maximum heart rate of 50-85%
   b. Exercise can be done in 10-15 minute sessions
   c. If you want to lose weight, you may increase your exercise time (http://www.mayoclinic.com/health/exercise/HQ01676/NSECTIONGROUP=2)
6. Exercise can be grouped into three types
   a. Flexibility – like stretching, to improve the range of motion of your muscles and joints
   b. Aerobic – like cycling, swimming, walking, skipping rope, rowing, running, hiking, or tennis, to increase your cardiovascular endurance
   c. Anaerobic – like weight training, functional training, eccentric training or sprinting and high-intensity interval training, to improve your short-term muscle strength (http://en.wikipedia.org/wiki/Physical_exercise)
iii. Health screenings and examinations; include the following:
1. Blood tests – they help assess a health problem to confirm a diagnosis
   a. Cholesterol – a sterol lipid (fat) in body cells; helps in the production of hormones, Vit. D and bile; it is found in egg yolks, fatty meats, shellfish, butter, cream, cheese, whole milk, and organ meats. There are two types, which include:
      i. HDL – high density lipids; the “good” cholesterol, helps to transport cholesterol back to the liver and helps to prevent plaque formation on the artery walls; the best level for an individual would be 60 mg/dL (milligrams per deciliter) or above
ii. LDL – low density lipids, the “bad” cholesterol, promotes plaque accumulation and in excess will lead to atherosclerosis; the best level for an individual would be for an individual would be below 100 mg/dL

iii. Total levels should be below 200 mg/dL

b. Glucose – is a form of sugar found in the blood stream, the normal levels should be between 70 – 150 mg/dL
   i. The pancreas produces insulin to help control these levels
   ii. Excessive levels is an indication of diabetes mellitus or hyperglycemia
   iii. Low levels is an indication of hypoglycemia

c. Hemoglobin – a complex protein composed of the protein molecule globin and the iron compound heme
   i. It carries O2 and CO2 throughout your body
   ii. The more O2, the brighter red in color
   iii. The less O2, the darker red to bluish cast
   iv. Normal levels include:
      1. Male – 14 – 18 gm/dL
      2. Females – 12 – 16 gm/dL

2. Blood Pressure – it is the pressure against the artery walls when the heart contracts
   a. The normal pressure is 120/80
      i. The systolic pressure is the force during the contraction; the top number, 120 mm of mercury
      ii. The diastolic pressure is when the heart is at rest; the bottom number, 80 mm of mercury
   b. An abnormal number is the first indication of disease

3. Colonoscopy – is an examination (endoscopic) of the large intestines/bowel and part of the smaller intestines with a fiber optic camera on a flexible tube
a. The tube is passed through the anus to visualize the colon in order to detect any ulcerations or polyps.

b. If present, a biopsy or removal of the lesion is performed to be studied for any disease process.

c. It is recommended that this procedure be performed by the age of 50 and then every 10 years; covered by most insurance companies.

4. Dental screenings – an examination of the teeth, for adults the recommended screenings should be done twice a year; this includes cleaning the teeth; dental insurance is a separate policy, some companies include this in their benefits.

5. Papanicolaou stain – also called a Pap smear, pap test, cervical smear or smear test.

   a. It is used to detect pre-cancerous or cancerous and other infectious processes.

   b. It is recommended that females who are sexually active be screened.

   c. Most insurance will cover this procedure.

   d. Current recommendations state that a female receive this test every 3 to 5 years; when the results are normal.

   e. If the results are abnormal the testing would be done according to the type of abnormality.

(https://en.wikipedia.org/wiki/Pap_test)

6. Mammograms – a process using a low-energy X-ray to examine the breast, it is a diagnostic and screening tool.

   a. Current recommendations, according to the U.S. Preventive Services, state they should be done beginning at age 50 for those at average risk of breast cancer.

   b. Whereas the American Cancer Society recommends that women begin by the age of 40, for those at average risk of breast cancer.

   c. It is best to check with your physician and your current insurance carrier to determine which will be reimbursed.

(https://www.mayoclinic.com/health/mammogram-guidelines/AN02052)

7. Prostate examinations – is a physical examination of the prostate gland.

   a. It is performed to detect cancer of the prostate.

   b. It is recommended to begin these examinations in the 40s.

   c. Annual exams are recommended after the age of 50.
8. Vision screening – is done to determine your visual acuity or your ability to see;
   a. It is also used to determine eye disease
   b. It generally involves the use of a Snellen Chart
   c. Very small children would be shown a picture chart or one using the letter E
   d. An Ishihara chart is used for those with color vision problems

iv. Stress Management

1. Stress – is a term that is used to describe those situations that become difficult for an individual to handle and is a result of either external or internal factors
   a. External factors would include your physical environment, your job, your relationships, your challenges; those things you confront on a daily basis
   b. Internal factors would include your body’s ability to respond and deal with those external factors; internal processes include; heart rate, blood pressure, digestion, etc

2. The body’s reaction to stress
   a. The “fight or flight” process
      i. Blood pressure, heart rate, respirations increase
      ii. Adrenaline is released with dilates blood vessels to heart and brain
      iii. Pupils dilate to improve vision
      iv. There is a burst of energy
         What system is at work here?
   b. After the challenge is met
      i. Opposite reactions occur
      ii. Body systems return to normal
      iii. Fatigue follows
         What system is at work here?
   c. Repeated stress reactions cause disease

3. Signs and symptoms of stress can manifest itself in a variety of ways; emotional, behavioral and physical
   a. S/S vary according to individuals ability to cope with stress
   b. Physical symptoms include sleep disturbances, muscle tension, muscle aches, headaches, GI problems and fatigue
c. Emotional and behavioral symptoms include nervousness, anxiety, changes in eating habits, loss of enthusiasm or energy and mood changes (i.e. irritability and depression) (http://www.medicinenet.com/stress/article.htm)

4. Stress related disorders
   a. Allergies
   b. Depression
   c. Digestive disorders
   d. Headaches
   e. Heart disease
   f. High blood pressure
   g. Muscle tension

5. How can we manage stress?
   a. Avoid stress
      i. Use the Serenity Prayer
      ii. Learn to say "no"
      iii. Avoid negative people
      iv. Exercise
      v. Eat healthy foods
      vi. Avoid hot-button topics
      vii. Keep a short "to-do" list and eliminate things that can be done later
   b. Alter stress
      i. Express feelings in a respectful way
      ii. Be assertive and honest
      iii. Compromise when necessary
      iv. Use time wisely
         1. Plan ahead
         2. Get things done on schedule
   c. Accept stress
      i. Accept the things you cannot change
      ii. Look for the bright side of a situation
      iii. Share your feelings with
            1. Family
            2. Friends
            3. Therapist
      iv. Learn to forgive
d. Adapt to stress
   i. Try to view a situation from all angles
   ii. Look at the “big picture”
   iii. Adjust your standards
   iv. Focus on the positive

e. Make time for fun and relaxation
   i. Go for a walk
   ii. Call a good friend
   iii. Write a journal
   iv. Play with a pet
   v. Curl up with a good book
   vi. Listen to music
   vii. Watch a comedy
   viii. Sweat out tension with a good workout

f. Adopt a healthy lifestyle
   i. Exercise regularly
   ii. Eat a healthy diet
   iii. Reduce caffeine and sugar
   iv. Avoid alcohol, cigarettes, and drugs
   v. Get enough sleep

II Risk factors that affect wellness
A. Self destructive behavior
   i. Drug, alcohol, and tobacco abuse
   ii. Irresponsible sexual behavior
   iii. Physical inactivity
   iv. Unhealthy eating habits

B. Environment
   i. Exposure to lead
   ii. Exposure to carcinogens
   iii. Sanitation

C. Genetics
   i. Birth defects
   ii. Family history

III Complementary/alternative medicine (CAM)
A. Complementary - the use of nonmainstream medical treatments that are used in conjunction with traditional medicine
   i. Based on the holistic theory
ii. Examples include acupuncture, yoga, aromatherapy, therapeutic massage, meditation, and others.

iii. The purpose targets enhancing and improving the patient’s ability to be healed.

B. Alternative – involves any healing outside the realm of conventional or traditional medicine.
   i. It has not been proven to be consistently effective.
   ii. Often opposed to conventional medicine.
   iii. Often has a historical or cultural basis.

C. Types of CAM
   i. Chiropractic medicine
      1. Manipulation of the spine, other joints, and soft tissues.
      2. Based on a theory of vertebral subluxation (loss of normal position by a joint, joint out of place).
      3. Treatments also include:
         a. Exercise.
         b. Health and lifestyle counseling.
   ii. Herbal remedies
      1. A traditional or folk medicine practice based on the use of plants and their extracts; examples include:
         a. Cinchona tree bark contains quinine that is used to treat malaria.
         b. German chamomile, flowering plant – looks like a wild daisy, is used for an upset stomach, irritable bowel or as a gentle sleep aid.
         c. Foxglove is the plant that provides many heart patients with digitalis; caution the plant is toxic. (http://en.wikipedia.org/wiki/Herbal_remedies)
      2. It is the most commonly used form of CAM, except for prayer.
      3. Standardization of purity and dosage is not mandated in the U.S.
   iii. Massage Therapy
      1. Manipulation of the superficial layers of tissue in order to enhance function and relaxation of the muscle and joints, etc.
      2. Involves acting on and manipulating the body with
         a. Pressure – Using the hands, fingers, elbows, knees, forearm and feet to press target points on the body to help stimulate the body’s curative abilities.
         b. Tension – Example is the use of Effleurage, the light touch of the fingers, in conjunction with warm oil, to perform long soothing strokes to relax and relieve tension.
c. **Motion**—involves the use of **range of motion** of the joints during the massage process

d. **Vibration**—is the gentle **trembling movement** to the tissues using your hand or fingers

3. The usage is based on
   a. The clients **demand or need**
   b. The perceived effectiveness to the client

4. There are over **80 different modalities**, including:
   a. **Swedish** massage—can be **light or deep**, depending on client, major strokes are **long & circular**, it is used to reduce **muscle aches**, improve **circulation** and reduce **stress**
   b. **Deep tissue** massage— is used to separate muscle from connective tissues, and when these structures get **sticky and less elastic** it helps them to return to a **supple, fluid** condition
   c. Others include
      i. **Medical** massage to reduce pain and increase **ROM**
      ii. **Pregnancy & Postpartum**—done during certain time periods of the pregnancy; helps to reduce back pain, swelling in the lower extremities, and to help transition into motherhood
      iii. **Manual lymphatic drainage**—soft touch techniques to reduce swelling and move the lymphatic fluid in the body
      iv. **Sports** massage—helps the athlete achieve the best results while helping them prevent injury
      v. **Shiatsu**—a different type of massage from the others above. It is from Japan and based on **Acupuncture**, however there are no needles. The whole body is targeted by using stretching, compression and finger point work to balance the **energy flow** through your body
         (http://www.livingtreemassage.com/modlist.htm)

iv. **Relaxation technique**—**any process** that helps a person to relax
   1. **Formal and passive** exercises—Breathing, meditation, or guided imagery
   2. **Movement-based** exercises—rhythmic exercise, like Pilates and yoga
   3. **Combination** of exercise methods—a combination of these methods

v. **Summary**
   1. There are **many** complementary and alternative health practices
   2. They have been **practiced for centuries**
   3. They **enhance** traditional medicine
4. They may or may not have **proven** scientific data
5. They may or may not have **AMA** support
6. The **effectiveness** may vary, as well as their **safety**