

Chapter 03: Theories of Aging

Touhy: Ebersole & Hess' Toward Healthy Aging, 9th Edition

MULTIPLE CHOICE

1. The nurse is aware the theory of aging most likely to explain why the older population is at risk for autoimmune disorder is known as:
 - a. cross-link theory.
 - b. free radical theory.
 - c. error theory.
 - d. autoimmune theory.

ANS: D

The immunity theory proposes that cellular errors in the immune system have been found to lead to an auto-aggressive phenomenon in which normal cells are misidentified as alien and are destroyed by the body's own immune system. This phenomenon is used to explain the increase of autoimmune disorders as we age. The cross-link theory describes aging in terms of the accumulation of errors of cross-linking or stiffening of proteins in the body. The free radical theory describes free radical errors as the result of random damage from free radicals. The error theory is a group of theories that propose that aging is an accumulation of errors in the synthesis of cellular DNA and RNA, which are the building blocks of the cell.

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MSC: Client Needs: Health Promotion and Maintenance

2. The family member of a patient asks if vitamin C will prevent aging. In formulating an appropriate response, the nurse considers the:
 - a. free radical theory.
 - b. autoimmune theory.
 - c. wear-and-tear theory.
 - d. continuity theory.

ANS: A

The free radical theory posits that aging is a result of random damage from free radicals. Research is ongoing on the ability of substances with antioxidant effects to counter the actions of free radicals. For many years it was thought that consumption of supplemental antioxidants, such as vitamin C, could delay or minimize the effects of aging. However, it is now known that the intake of supplemental antioxidants can be deleterious to one's health. The autoimmune theory posits that the cells of the immune system become progressively more diversified with age and lose self-regulatory ability. The use of vitamin C is not associated with this theory. The wear-and-tear theory posits that cellular errors are the result of wearing out over time due to constant use. The continuity theory is a sociological theory that deals with the tendency of individuals to develop and maintain consistent patterns of behavior throughout their lives.

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3. The nurse implements the concepts of the activity theory of aging when instructing the older client with osteoarthritis to:
 - a. continue her daily walking routine.
 - b. curtail further increases in physical activity.
 - c. document preferred end-of-life interventions.
 - d. avoid exposing herself to crowds.

ANS: A

The activity theory states that successful aging equals active aging, which is related to the person's need to maintain a productive life for it to be a happy life. Curtailing increases in physical activity is diametrically opposite to continuing a daily walking routine and contrary to the tenets of the activity theory. End-of-life decisions and avoiding exposure to crowds are not related to the activity theory since they do not directly affect the productiveness of a client's life.

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4. A community health nurse provides an annual flu prevention workshop at a local senior center. The activities include a lecture on preventing infections, which includes hand washing and limiting exposure to individuals who are ill, as well as an influenza immunization clinic. The nurse is basing her activities on what theory of aging?
 - a. Wear and tear
 - b. Oxidative stress
 - c. Autoimmune
 - d. Free radical

ANS: C

The autoimmune theory of aging describes changes in cells of the immune system, which make an older person more susceptible to infection. Prevention of infection is very important in older adults and can be accomplished by education and immunization. Wear and tear, oxidative stress, and free radical are incorrect because none of these theories of aging deal with prevention of infection.

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5. A 66-year-old retired professional basketball player is admitted to the hospital for a total knee replacement due to osteoarthritis. In preparing preoperative teaching for this patient, the nurse includes which theory of aging to help him understand how the disease has progressed?
 - a. Free radical theory
 - b. Wear-and-tear theory
 - c. Gene theory
 - d. Cross-link theory

ANS: B

Osteoarthritis is characteristic of degeneration that results from joint usage. This disease is a good example of the wear-and-tear theory; repeatedly injuring one organ or body system, such as occurs during playing sports, may result in premature aging and diseases such as osteoarthritis. The free radical theory states that cell damage is a result of the accumulation of oxygen radicals. The gene theory states that genes govern cellular mortality. The cross-link theory is related to the accumulation of cross-linked proteins, which may cause disease.

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6. A married couple retired to a life care community after the husband had heart surgery. The wife has always been physically and socially active and joined an aerobic class, knitting groups, and a book club shortly after moving to the community. She walks on a daily basis and swims twice a week. Her husband spends his days reading and watching television. He was never a social person and enjoys being by himself. Which of the sociological theories of aging best describes the couple?
- Role theory
 - Disengagement theory
 - Continuity theory
 - Personality theory

ANS: C

The continuity theory asserts that individuals tend to develop and maintain a consistent pattern of behavior as they age. The wife was active and social and continues to be so. Her husband was not very social and preferred less active activities and continues to do so. The role theory describes that people engage in roles consistent with their chronological age. The scenario above describes activity levels, not roles. The disengagement theory describes withdrawal of older adults from roles and activities of earlier life. Personality theories are distinct and different from sociological theories of aging.

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7. A nurse plans programs for older adults in a senior center. She organizes a series of exercise programs. She sets one up for clients ages 65-74, one for clients 74-85, and one for clients over age 85. The nurse is utilizing which theory of aging?
- Gerotranscendence
 - Activity theory
 - Age-stratification theory
 - Continuity theory

ANS: C

Age-stratification theory considers individuals as members of cohorts with similarities to others in the same group. The importance of the similarities exceeds that of the differences. Gerotranscendence theory posits that older adults withdraw from society, in order to give the individual the opportunity for self-reflection and exploration. Time, material possessions, and superficial relationships have less meaning. Activity theory proposes that continued activity contributes to successful aging. Continuity theory posits that individuals develop and maintain a consistent pattern of behavior over a lifetime.

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MULTIPLE RESPONSE

1. The nurse shows an understanding of the error group of aging theories when stating: *(Select all that apply.)*
 - a. "Aging occurs differently for the various ethnic groups."
 - b. "Our genetic makeup is responsible for how we are affected by age."
 - c. "Aging is a result of mistakes in our RNA and DNA metabolism."
 - d. "The free radical theory is an example of an error theory."
 - e. "Aging effects are really random and unpredictable."

ANS: C, D, E

Answers A and B are congruent with programmed (nonerror) theories. The programmed theories are those in which the changes of aging are attributed to a process that is programmed and thought to be predetermined such as in the various ethnic groups. Research is currently looking at genes being responsible for aging. The programmed theories view aging as predetermined and not random. The error theories propose that aging is the result of an accumulation of errors in the synthesis of cellular DNA and RNA synthesis, and that changes related to aging are random and unpredictable. The free radical theory is an error theory.

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2. The nurse preparing wellness information for older adult clients is promoting interventions consistent with the concepts of the biological theories of aging when suggesting that they: *(Select all that apply.)*
 - a. use moisturizers daily to minimize dry skin.
 - b. discuss the use of antacids to control heartburn with their health care provider.
 - c. stay active by interacting with family and friends regularly.
 - d. practice stress reduction techniques on a regular basis.
 - e. consider getting a yearly influenza vaccination.

ANS: A, B, D, E

Interventions that promote biological theories of aging include those that help avoid skin dryness and the overuse of antacids (cross-link) as well as the minimization of stress and risk for viral infections (oxidative stress, immunity). Remaining physically active and emotionally connected is consistent with the psychosocial theories of aging.

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3. A nurse demonstrates understanding of the continuity theory when the nurse provides which of the following advice to an older client? *(Select all that apply.)*
 - a. "It is important to think about the activities that have been most satisfying for you throughout your adult life and make a plan to continue them"

- b. “Since you enjoyed teaching young children so much, perhaps you would enjoy volunteering in the day care center”
- c. “It is important to save enough money so that you will have an adequate income during retirement”
- d. “It is important to maintain an active lifestyle as you age”
- e. “As you get older it is natural to slowly disengage oneself from many activities”

ANS: A, B

Continuity theory posits that individuals develop and maintain a consistent pattern of behavior over a lifetime. Successful aging is associated with one’s ability to maintain and continue previous behaviors and roles or find suitable replacements. Options A and B demonstrate this theory. Option C demonstrates the social exchange theory, which is conceptualized from an economic perspective. Option D demonstrates the activity theory, and Option E demonstrates the disengagement theory.

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4. Gerotranscendence theory posits that: *(Select all that apply.)*
- a. older adults withdraw from society in order to allow the transfer of power to younger individuals.
 - b. older adults withdraw from society in order to give the individual an opportunity for self-reflection and self-exploration.
 - c. time and superficial relationships become less important.
 - d. material possessions have less meaning.
 - e. status and value of elders is lost because their contributions are no longer valued.

ANS: B, C, D

Disengagement theory posits that older adults withdraw from society in order to allow the transfer of power to younger adults. Gerotranscendence theory posits similarly that older adults withdraw from society, but for different reasons. These reasons include giving the individual the opportunity for self-reflection and exploration. Time, material possessions, and superficial relationships have less meaning. The modernization theory posits that the status and value of elders is lost because their contributions are no longer valued.

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