Chapter 7: Middle Adulthood

Module 7.1
Physical Development in Middle Adulthood

4/14/2009

PHYSICAL DEVELOPMENT IN MIDDLE ADULTHOOD

4/14/2009

Age Changes

- What stays the same as we age?
- What changes with age?

4/14/2009

Changes with age = Aging

“Layers of Aging”
- Socioeconomic
- Cognitive
- Spiritual
- Biological functions

4/14/2009

How is aging like or NOT like other social categories?

- What are the “isms”?
- Does ageism exist?

4/14/2009
Physical Transitions in Middle Adulthood

- Gradual psychological and emotional changes in body’s capabilities
  - Time when most people first become aware of gradual changes in body that mark aging process.
- Depends in part on self-concept and lifestyle
  - Signs of aging they see in the mirror signal not just a reduction in their physical attractiveness, but also aging and mortality.

Height, Weight, and Strength: Benchmarks of Change

- **Height**
  - Reach their maximum height during their 20s and remain relatively close to that height until around age 55.
  - Begin a “settling” process in which the bones attached to the spinal column become less dense. Although the loss of height is very slow, ultimately (after age 55) women average a 2-inch decline and men a 1-inch decline.
  - Women are more prone to a decline in height because they are at greater risk of osteoporosis.
  - **Osteoporosis**, a condition in which the bones become brittle, fragile, and thin, is often brought about by a lack of calcium in diet.

Osteoporosis

- **Height**
  - Reach their maximum height during their 20s and remain relatively close to that height until around age 55.
  - Begin a “settling” process in which the bones attached to the spinal column become less dense. Although the loss of height is very slow, ultimately (after age 55) women average a 2-inch decline and men a 1-inch decline.
  - Women are more prone to a decline in height because they are at greater risk of osteoporosis.

- **Weight**
  - Amount of body fat tends to grow in average person.
  - People who maintain exercise program tend to avoid obesity, as do individuals living in cultures where the typical life is more active and less sedentary.
- **Strength**
  - Strength gradually decreases, particularly in the back and leg muscles.
  - By 60, people have lost, on average, about 10 percent of their maximum strength.

Sights and Sounds of Middle Age

- **Society applies a double standard to men and women in terms of appearance**
  - Older women tend to be viewed in unflattering terms
  - Aging men more frequently perceived as displaying a maturity that enhances status
- **Starting at age 40, visual acuity declines**
  - Changing eye’s lenses in shape and elasticity results in loss of near vision, called **PRESBYOPIA**
  - Declining depth perception and night vision
- **GLAUCOMA**
Do you hear what I hear?

**PRESBYCUSIS**
- About 12 percent of people between 45 and 65 suffer from presbycusis
- Men more prone to hearing loss
- Sound localization is diminished

Reaction time: Not-so-slowing Down

- Decreases slightly in middle adulthood
- Improves or compensated for by being more careful and practicing the skill
- Exercise can slow this loss

"Use It or Lose It"

The advantages of exercise include:
- **Muscle System**
  - Decreases fluid in muscles, improves muscle function, increased strength, decreased fatigue, and improved athletic performance.
- **Nervous System**
  - Decreases fluid in the brain and spinal cord.
- **Endocrine System**
  - Maintains normal levels of hormones and reduces stress.
- **Cardiovascular System**
  - Decreases risk of high blood pressure, atherosclerosis, heart attack, stroke.
- **Muscular System**
  - Increases bone mass.
- **Psychological Benefits**
  - Improved mood, reduced stress.

Sexuality During Middle Age

- Frequency of sexual intercourse decreases with age
  - Sexual activities remain a vital part of most middle-aged adults’ lives
  - Adults have more freedom
  - Women no longer need to practice birth control

Sexual Intercourse

- Men typically need more time to get an erection
  - Volume of fluid in ejaculation declines
  - Production of testosterone also declines
- In women, walls of the vagina become less elastic and thinner
  - Vagina shrinks, potentially making intercourse painful

Female Climateric

- Starting about age 45, transition from being able to bear children to being unable to do so
- Lasting about 15 to 20 years
- **MENOPAUSE**
Menopause

- *Estrogen replacement therapy (ERT)*
- Women’s expectations about menopause relate to their experience of menopause
  - Variations by race and culture

From Research to Practice

*The Dilemma of Hormone Therapy*

**PRO**
- Changes ratio of “good” cholesterol to “bad” cholesterol
- Decreases thinning of bones
- Associated with reduced risks of stroke and colon cancer
- Cognitive advantages
- Enhances sex drive

**CON**
- Increases risk of breast cancer and blood clots
- Higher risk for pulmonary embolism and heart disease

What do you think?

- How might the fact that the medical advice of experts on hormone therapy has changed frequently over the last decade affect women’s decisions about what course of action to follow?
- What are the most important factors a woman should take into account in deciding whether or not to embark on a course of hormone therapy?

The Psychological Consequences of Menopause

- Early research
  - Menopause was linked directly to depression, anxiety, crying spells, lack of concentration, and irritability
- Current research
  - Normal part of aging that does not, by itself, produce psychological symptoms
- Effects influenced by personal and cultural expectations of menopause

Male Climacteric

- Male changes during middle age
  - Period of physical and psychological change relating to male reproductive system that occurs during late middle age.
  - Enlargement of the prostate gland
  - Problems with urination, including difficulty starting to urinate and frequent need to urinate during night
- Men still produce sperm and can father children through middle age
Health and Wellness

- American College of Sports Medicine and the Centers for Disease Control and Prevention
  - At least 30 minutes of moderate-intensity physical activity daily:
    - Reduces risk of heart disease, osteoporosis, weight gain, and hypertension
    - Provides psychological benefits of sense of control and well-being

Did you know?

- Vast majority of people in middle age
  - Face no chronic health difficulties
  - Fewer accidents and infections

Chronic Diseases in Middle Adulthood

- Arthritis typically begins after age 40
- Diabetes is most likely to occur in people between the ages of 50 and 60
- Hypertension (high blood pressure) is one of the most frequent chronic disorders found in middle age

Table 7-1, continued

<table>
<thead>
<tr>
<th>TABLE 7-1</th>
<th>ADULT PREVENTIVE HEALTHCARE SCREENING RECOMMENDATIONS—CONTINUED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FACTORS</strong></td>
<td><strong>SCREENING INTERVAL</strong></td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>BREAST</strong></td>
<td>One-time mammogram at age 40, then every 2 years</td>
</tr>
<tr>
<td><strong>CERVIX</strong></td>
<td>Papanicolaou test (Pap test) every 3 years or 5 years, then every 5 years</td>
</tr>
<tr>
<td><strong>H EART</strong></td>
<td>12-lead electrocardiogram every 3 years or every 5 years</td>
</tr>
<tr>
<td><strong>LUNG</strong></td>
<td>Chest X-ray every 3 years or 5 years, then every 5 years</td>
</tr>
<tr>
<td><strong>SKELETAL</strong></td>
<td>DEXA scan every 2 years, then every 3 years</td>
</tr>
</tbody>
</table>

Gender Differences

- During middle age, women experience more non-life threatening illnesses than men but men experience more serious illnesses
  - Women smoke less; drink less alcohol; have less dangerous jobs
- Medical research has typically studied diseases of men with all male samples; the medical community is only now beginning to study women's health issues
What are the consequences of stress in middle adulthood?

Stress in Middle Adulthood

- Stress continues to have a significant impact on health in middle age
- According to psychoneuroimmunologists (who study the relationship between the brain, the immune system, and psychological factors) stress has consequences
  - Direct physiological outcomes – e.g., increased blood pressure and hormonal activity.
  - Leads to unhealthy behaviors
    - Smoking, cutting back on sleep, drinking, or taking other drugs
    - People under a lot of stress are more likely to give into these unhealthy behaviors