Chapter 7: Middle Adulthood

Module 7.1
Physical Development in Middle Adulthood

PHYSICAL DEVELOPMENT IN MIDDLE ADULTHOOD
Age Changes

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

Changes with age = Aging

“Layers of Aging”
- Socioeconomic
- Cognitive
- Spiritual
- Biological functions
How is aging like or NOT like other social categories?

- What are the “isms”?
- Does ageism exist?
**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, Weight, and Strength: Benchmarks of Change

- **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.
There was an old lady….

- **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

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**Sights and Sounds of Middle Age**

- **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**
  - Slower decline in energy molecules, muscle cell thickness, number of muscle cells, muscle thickness, muscle mass, muscle strength, blood supply, speed of movement, stamina
  - Slower increase in fat and fibers, reaction time, recovery time, development of muscle soreness

- **Nervous System**
  - Slower decline in processing impulses by the central nervous system
  - Slower increase in variations in speed of motor neuron impulses

- **Circulatory System**
  - Maintenance of lower levels of LDLs and higher HDLs/cholesterol and HDL/LDL ratios
  - Decreased risk of high blood pressure, arteriosclerosis, heart attack, stroke

- **Skeletal System**
  - Slower decline in bone minerals
  - Decreased risk of fractures and osteoporosis

- **Psychological Benefits**
  - Enhanced mood
  - Feelings of well-being
  - Reduces stress

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**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

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From Research to Practice

The Dilemma of Hormone Therapy

Estrogen and progesterone administered to alleviate menopausal symptoms

**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
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
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 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