

Health Psychology, 6th edition
Shelley E. Taylor

Chapter Four:
Health-Enhancing Behaviors

Exercise: Overview

- Aerobic exercise is sustained exercise that
 - stimulates/strengthens heart and lungs
 - improves body's utilization of oxygen
- High-intensity, long-duration
 - Bicycling
 - Jogging, running
 - Jumping rope
 - Swimming

Exercise: Benefits

- Increases in cardiovascular fitness and endurance
 - 30-minute/day decreases the risk of chronic disease
- Increased longevity
 - by age 80, the amount of additional life attributable to aerobic exercise is between 1 and 2 years
- Yet, 1/4 of Americans do not engage in **any** leisure-time physical activity
- 2/3 of Americans don't meet recommended levels of physical activity

Exercise: Determinants of Regular Exercise

- Exercise schedules are usually erratic
 - Lack of time and stress undermine good intentions
 - About 50% of people who initiate a voluntary exercise program are still doing it after 6 months
- Individual Characteristics
 - Gender, weight, social support, self-efficacy predict exercise adherence
- Characteristics of the Setting
 - Convenient and accessible settings predict adherence

Exercise: Characteristics of Interventions

- Strategies
 - Cognitive-behavioral strategies promote adherence
 - Telephone and mail reminders are effective in relapse prevention
- Individualized Exercise Programs
 - Understanding motivation and attitudes aids in development of a program of activities that are liked and are convenient

Accident Prevention: Overview

- Accidents
 - Major cause of preventable death in U.S.
- Worldwide
 - 1.26 million people died of road-traffic injuries in 2000
 - Economic cost of accidents is \$518 billion per year
- Strategies to reduce accidents
 - Focus of health psychology research and intervention

Accident Prevention: Home and Workplace

- Accidents in the home
 - Most common cause of death and disability in children under 5
- Pediatricians and parenting classes
 - Provide information to new parents about “childproofing” the home
- Social engineering solutions are effective in reducing injury and mortality
 - Safety caps on medication
 - Guidelines regarding occupational safety

Accident Prevention: Motorcycle and Automobile Accidents

- Single greatest cause of accidental death
- Little psychological research helping people avoid vehicular accidents
- Safety measures do reduce mortality
 - Wearing seat belts
 - Highway speeds of 55 mph
 - Infants/children in car safety seats
 - Reflective clothing among bike/motorcycle riders
- BUT many people don't follow these measures
 - Examples: Seat belts, especially among adolescents

Cancer-Related Health Behaviors: Breast Self-Examination

- Breast cancer
 - On decline, remains leading cause of cancer death
 - Strikes 1 in 8 U.S. women
 - 90% detected through BSE
- BSE
 - Palpitating breasts to detect alterations in underlying tissue
 - Once per month, day 10 of menstrual cycle
 - Check while standing up and lying down
- Relatively few women practice BSE
- Few women practice BSE correctly

Cancer-Related Health Behaviors: Breast Self-Examination (BSE)

- Theory of Planned Behavior predicts BSE
- Health locus of control beliefs predict BSE
- Barriers to BSE
 - Not knowing exactly how to do it
 - Breast tissue tends to be lumpy, beginners find lumps frequently
 - Fear may act as a deterrent
 - Synthetic models help accuracy and confidence
- Teaching BSE

Cancer-Related Health Behaviors: Mammograms

- Women aged 50 and older
 - Mammograms every year suggested
- Why are mammograms important?
 - Prevalence of breast cancer remains high
 - Majority of breast cancers are detected in women over age 40
 - Early detection improves survival rates

Cancer-Related Health Behaviors: Mammograms

- Compliance is low
 - 27% of women had the age appropriate number of repeat screening mammograms
- Deterrents include
 - Fear of radiation
 - Embarrassment over procedure
 - Anticipated pain
 - Concern about cost, especially among poor women
 - Lack of awareness, time, incentive, availability

Cancer-Related Health Behaviors: Testicular Self-Examination

- Most common cancer in men 15 to 35 years
- A leading cause of death for men 15 to 35
- Incidence is increasing
 - With early detection, cure rate is high
- Symptoms include
 - Small, painless lump on front or side of testicle
 - Feeling of heaviness in the testes
 - Dragging sensation in the groin
 - Fluid or blood in scrotal sac

Cancer-Related Health Behaviors: Testicular Self-Examination (TSE)

- TSE Exam
 - Become familiar with surface, texture, consistency of testicles
 - Examination during warm bath/shower
 - Rotate testicle between thumb and forefinger to detect lumps
- Educational interventions increases
 - Frequency of TSE
 - Proficiency in TSE
- No documented relation of TSE to reduction in advanced testicular cancer at this point

Cancer-Related Health Behaviors: Colorectal Cancer Screening

- Colorectal cancer
 - Western countries, 2nd highest cause of cancerous deaths
- Screening
 - People often learn they have polyps rather than malignancies
- Participation predicted by
 - Self-efficacy, perceived benefits, physician's recommendation, lack of barriers

Cancer-Related Health Behaviors: Sunscreen Use

- Skin Cancer
 - Fourfold increase in 30 years
 - Melanoma incidence risen 155% in 20 years
- Excessive exposure to ultraviolet radiation
 - Vacations in southern latitudes
 - Participation in outdoor activities
 - Use of tanning salons
- Problem with Sunscreen Use
 - Tans are perceived as attractive
 - Young adults – especially concerned with appearance

Cancer-Related Health Behaviors: Sunscreen Use

- Best predictor of sunscreen use is **type of skin**
 - burn only, burn then tan, tan without burning
- Factors influencing sunscreen use
 - Perceived need for sunscreen
 - Perceived efficacy of sunscreen (prevent cancer)
 - Social norms
- Most effective educational intervention
 - Short-term negative effects of tanning on appearance rather than long-term effects on health
 - UV photo with aging information led to less sunbathing

Maintaining a Healthy Diet: Overview

- Controllable risk for many causes of death
- 35% of U.S. population gets 5 servings of fruit and vegetables each day
- Unhealthy eating contributes to 300,000+ deaths per year
- Dietary change is critical for those at risk for
 - Coronary artery disease, hypertension
 - Diabetes
 - Cancer

Maintaining a Healthy Diet: Why is Diet Important?

- Dietary factors contribute to broad array of diseases
 - Example: relation of dietary factors to total serum cholesterol level
 - Estimates of degree to which diet contributes to incidence of cancer exceed 40%
- Poor diets are problems in conjunction with other risk factors, such as stress
- Good News!
 - Changing one's diet improves health
- Controversy
 - Will reducing calories increase the life span?

Maintaining a Healthy Diet: Resistance to Modifying Diet

- People switch to healthier diets more often to improve **appearance** than to improve **health**!
- Maintaining change is difficult
 - Long-term monitoring, relapse prevention is critical
 - Tastes are difficult to alter
 - Dietary changes may affect mood and personality
- Helpful factors
 - Strong sense of self-efficacy
 - Family support
 - Perception that dietary change has important benefits

Maintaining a Healthy Diet: Resistance to Modifying Diet

- Stress has a direct effect on eating
 - Especially true for adolescents
- Greater stress tied to
 - Eating more fatty foods
 - Eating less fruit and vegetables
 - Skipping breakfast
 - More between-meals snacks

Maintaining a Healthy Diet: Interventions to Modify Diet

- Individual interventions
 - In response to specific health risk
 - Education and self-monitoring are key
 - Cognitive-behavioral interventions
- Transtheoretical Model of Change - Different interventions are required for each stage
 - Precontemplation
 - Contemplation
 - Preparation
 - Action
 - Maintenance

Maintaining a Healthy Diet: Interventions to Modify Diet

- Family interventions
 - Easier for target member to change when other family members change also
 - Wives usually shop and prepare food
 - Husband's food preferences likely to determine what the family actually eats
- Meet with a dietary counselor
 - Discuss ways to change the family's diet
 - Family members decide on specific changes

Maintaining a Healthy Diet: Interventions to Modify Diet

- Community interventions
 - Initial success rates, but not impressive long term change
 - More effective – intervention directed toward particular at-risk groups (Hispanic dietary study)
 - Social engineering possibilities
 - Banning snack foods from schools
 - Making snack foods expensive; healthy foods less

**Weight Control:
Regulation of Eating**

- Taste
 - The chemical gatekeeper
 - Most ancient of the senses
 - Important in selection and rejection of foods
- Leptin
 - Protein secreted by fat cells
 - Signals hypothalamus about stores of fat
 - Inhibits neurons that stimulate appetite
 - Activates neurons that suppress appetite

**Weight Control:
Regulation of Eating**

- Ghrelin
 - Secreted by cells in the stomach
 - Spikes just before meals, drops afterwards
 - When given ghrelin injections, people feel extremely hungry
- Ventromedial hypothalamus
 - When damaged, rats eat excessively
 - May play a role in some cases of human obesity

**Weight Control:
Why Obesity is a Health Risk**

- Obesity – excessive body fat
 - Women: fat should be 20% to 27% of body tissue
 - Men: fat should be 15% to 22% of body tissue
- Global epidemic of obesity
 - 300 million worldwide are obese
 - Americans are fattest in the world
- Epidemic stems from
 - Genetic susceptibility
 - Increasing availability of high-fat, high-energy foods
 - Low levels of physical activity

**Weight Control:
Why Obesity is a Health Risk**

Portions	Then	Now
Average American's Calories/Day	1,826 in the 1970s	2,000 in the mid 1990s
Soda Consumption	22.2 Gallons per year	56 Gallons per year
McDonald's French Fries	Original Size was 200 Calories	Supersize is 610 Calories

**Weight Control:
Why Obesity is a Health Risk**

- Links with other risk factors, i.e., blood pressure
- Increases risks during surgery, anesthesia administration, and childbearing
- Chief cause of disability
 - number of people aged 30-49 who cannot care for themselves has jumped by 50%
- Problems with health care
 - May not fit in standard wheelchairs
 - X-rays may not penetrate far enough
 - Blood pressure cuffs may not fit

**Weight Control:
Obesity in Childhood**

- Prevalence of overweight children in the past 20 years
 - Doubled among those 6 to 11 years
 - Tripled among those 12 to 17 years
- Why?
 - Sedentary lifestyles
 - TV, videogames
 - Early eating habits
- 80% of all people who were overweight as children go on to be overweight as adults
- <http://www.girlpower.gov/girlarea/bodywise/Index.htm>



**Weight Control:
Factors Associated with Obesity**

- Family History and Obesity
 - Relationship is due to genetic and dietary factors
- SES, Culture, and Obesity
 - Low SES women are heavier than high SES women
 - SES not associated with obesity for men or children
 - Thinness is valued in women from developed countries

**Weight Control:
Factors Associated with Obesity**

- Obesity and Dieting as Risk Factors
 - Obesity is a risk factor for obesity
 - High basal insulin levels prompt overeating due to increased hunger
 - Obese have larger fat cells
 - Cycles of dieting lower metabolic rate
- Set Point Theory
 - Each person has ideal biological weight

**Weight Control:
Stress and Eating**

- 50% eat more when under stress
 - Women more likely to eat more under stress
 - Stress removes self-control in dieters/obese
 - Choose foods containing more water, "chewier"
 - Choose salty, low calorie foods
 - Negative emotions – sweet, high-fat foods
- 50% eat less when under stress
 - Men, compared to women, eat less under stress
 - Non-dieting, non-obese suppress hunger cues

**Weight Control:
Treatment of Obesity**

- Amazon.com has 140,000 titles about dieting
- Obese individuals attempt to lose weight because
 - It is considered unattractive (a primary reason)
 - It carries a social stigma (a primary reason)
 - They perceive that it is a health risk
 - It is coupled with psychological distress
- Obese - often blamed for their weight
- Few health practitioners advise losing weight

**Weight Control:
Treatment of Obesity**

- Dieting
 - Small losses, rarely maintained for long
 - Risk of yo-yo dieting to CHD > than risk of obesity alone
 - Formal investigation of low-carb diets does not suggest they are more effective than other kinds of diets
- Fasting – usually employed with other techniques
- Surgery – stomach stapled to reduce capacity
- Appetite-Suppressing drugs
- The multimodal approach
 - Screening, self-monitoring, control over eating, exercise
 - Controlling self-talk, social support, relapse prevention

**Weight Control: Where are Weight
Loss Programs Implemented?**

- Work Site Interventions
 - Team competitions are effective in the short term
 - Controversy
 - Are weight losses maintained over time?
- Commercial Programs
 - TOPS (Taking Pounds Off Sensibly)
 - Weight Watchers
 - Jenny Craig

Weight Control: Evaluation of Cognitive-Behavioral Techniques

- Efforts are somewhat successful
 - Losing 2 pounds/ week for 20 weeks
 - Maintenance for 2 years
 - Programs emphasize self-direction, exercise, and relapse prevention
- Health psychologists suggest
 - Sensible eating and exercise
 - Rather than specific weight reduction techniques

Weight Control: Taking a Public Health Approach

- Prevention with families at risk
 - Training: Sensible meal planning
 - Training: Helping children develop healthy eating habits
- Behavioral treatment
 - Adult obesity – difficult to modify
 - Childhood obesity – impressive successes
 - Reinforcement for exercise is effective
 - Reduced TV watching is effective

Weight Control: Taking a Public Health Approach

- Weight- Gain Prevention
 - Women at menopause: exercise and good eating habits may prevent the weight gain that is very common
 - Special “junk food tax” on foods high in sugars and fats
 - Restriction of advertising to children
 - Health warnings regarding foods high in sugars and fats

**Eating Disorders:
Anorexia Nervosa**

- An obsessive disorder amounting to self-starvation
- Dieting and exercising till body weight is grossly below optimum level
- Most sufferers are adolescent females
- Disproportionate number from upper social classes

**Eating Disorders: Factors in
developing Anorexia Nervosa**

- Physiological
 - Amenorrhea, abnormal levels of neuroactive steroids, Turner's syndrome, hypothalamic abnormalities, chronically overreact to stress
- Profiles show
 - Depression, anxiety, low self-esteem, poor sense of mastery
- Genetic contributions – runs in families
- Family interaction patterns – lack of control, need for approval
- First treatment step: bring weight up to safe level

**Eating Disorders:
Bulimia**

- An eating syndrome characterized by alternating cycles of binge eating and purging through such techniques as
 - Vomiting
 - Laxative abuse
 - Extreme dieting
 - Drug or alcohol abuse
- Binge eating
 - Usually the person is alone and feels out of control

Eating Disorders: Bulimia

- Bulimics
 - Typically normal or overweight
- Issues of control
 - Binge phase – out of control
 - Purge phase – attempt to regain control
- Control of eating shifts from internal sensations to cognitively based decisions
- Families placing high value on thinness
 - produce bulimic daughters
- Genetic basis: Bulimia runs in families
- First step to help: Get treatment

Sleep: What is Sleep?

- Stage 1
 - Theta waves, lightest stage of sleep
- Stage 2
 - Sleep spindles, large K-complex waves
 - Body temperature drops, breathing and HR even out
- Stages 3 and 4
 - Deep sleep, Delta waves, blood pressure falls, strengthening immune system
- REM sleep
 - Beta waves, vivid dreams, consolidating memories

Sleep: Sleep and Health

- Major sleep disorders
 - More than 14 million Americans have them
 - May be tied to hormonal levels at menopause
 - Most common sleep disorder is insomnia
- Chronic insomnia
 - Reduces the ability to respond to insulin
 - Increases the risk of CHD
 - Reduces the efficacy of flu shots

Sleep: Apnea

- *Quality* of sleep compromises health
- Apnea
 - Air pipe blockage leads the sleeper to stop breathing for as long as three minutes
 - S/he wakes up gasping for air
 - People can awaken dozens of times each night without realizing it
- Sleep apnea triggers thousands of nighttime deaths
- Surgery or special machines are used to treat this condition

A Good Night's Sleep: Table 4.5

- Get regular exercise, at least three times a week.
- Keep the bedroom cool at night.
- Sleep in a comfortable bed that is big enough.
- Establish a regular schedule for awakening and going to bed.
- Develop nightly rituals that can get one ready for bed, such as taking a shower.
- Use a fan or other noise generator to mask background sound.
- Don't consume too much alcohol or smoke.
- Don't eat too much or too little at night.
- Don't have strong smells in the room, as from incense, candles, or lotions.
- Don't nap after 3 p.m.
- Cut back on caffeine, especially in the afternoon or evening.
- If awakened, get up and read quietly in another place, to associate the bed with sleep, not sleeplessness.

Health-Enhancing Behaviors: Rest, Renewal, Savoring

- Understanding health-enhancing behaviors is a work in progress
- Health behaviors needing research
 - Processes of relaxation and renewal
 - Restorative activities to reduce stress
- Intuition, rather than a strong body of research, guides our thinking about restorative processes
