

Detailed Chapter Outline with Key Terms

Chapter 11: Physical and Cognitive Development in Adolescence

Focus: Anne Frank, Diarist of the Holocaust

ADOLESCENCE: A DEVELOPMENTAL TRANSITION

- **Adolescence:** Developmental transition between childhood and adulthood entailing major physical, cognitive, and psychosocial changes.
- **Puberty:** Process by which a person attains sexual maturity and the ability to reproduce.
- *Pubescence:* Term meaning puberty.

PHYSICAL DEVELOPMENT

PUBERTY: THE END OF CHILDHOOD

How Puberty Begins: Hormonal Changes

- *Adrenarche:* Maturing of the adrenal glands.
- *Gonadarche:* Maturing of the sex organs and the appearance of more obvious pubertal changes.
- *Dehydroepiandrosterone (DHEA):* An androgen secreted by the adrenal glands which plays a part in the growth of pubic, axillary, and facial hair, as well as in faster body growth, oilier skin, and the development of body odor.

Timing, Sequence, and Signs of Puberty and Sexual Maturity

Primary and Secondary Sex Characteristics

- **Primary sex characteristics:** Organs directly related to reproduction, which enlarge and mature during adolescence.
- **Secondary sex characteristics:** Physiological signs of sexual maturation (such as breast development and growth of body hair) that do not involve the sex organs.
- *Areolae:* The pigmented areas surrounding the nipples, which enlarge during puberty.

Influences on Onset of Puberty

- **Secular trend:** Trend that can be seen only by observing several generations, such as the trend toward earlier attainment of adult height and sexual maturity, which began a century ago.
- *Pheromones:* Odorous chemicals given off by men and women, which attract mates.

The Adolescent Growth Spurt

- **Adolescent growth spurt:** Sharp increase in height and weight that precedes sexual maturity.

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Signs of Sexual Maturity: Sperm Production and Menstruation

- **Spermarche:** Boy's first ejaculation.
- *Nocturnal emission:* An involuntary ejaculation of semen (commonly referred to as a *wet dream*) that happens at night in males.
- *Menstruation:* The monthly shedding of tissue from the lining of the womb.
- **Menarche:** Girl's first menstruation.

THE ADOLESCENT BRAIN

PHYSICAL AND MENTAL HEALTH

Physical Activity

Sleep Needs

- *Circadian timing system:* The natural sleep-wake cycle of the brain, lasting 24 hours.
- *Melatonin:* A hormone secreted by the pineal gland, which promotes sleep.

Nutrition and Eating Disorders

Obesity/Overweight

Body Image and Eating Disorders

- **Body image:** Descriptive and evaluative beliefs about one's appearance.

Anorexia Nervosa

- **Anorexia nervosa:** Eating disorder characterized by self-starvation.

Bulimia Nervosa

- **Bulimia nervosa:** Eating disorder in which a person regularly eats huge quantities of food and then purges the body by laxatives, induced vomiting, fasting, or excessive exercise.
- *Binge eating disorder:* Frequent bingeing without subsequent fasting, exercise, or vomiting.

Treatment and Outcomes of Anorexia and Bulimia

Use and Abuse of Drugs

- **Substance abuse:** Harmful use of alcohol or other drugs.

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- **Substance dependence:** Physiological or psychological addiction, or both.

Trends in Drug Use

Risk Factors for Drug Abuse

- *Difficult temperament*
- *Poor impulse control and a tendency to seek out sensation*
- *Family influences*
- *Early and persistent behavior problems*
- *Academic failure and lack of commitment to education*
- *Peer rejection*
- *Associating with drug users*
- *Alienation and rebelliousness*
- *Favorable attitudes toward drug use*
- *Early initiation into drug use*

Alcohol, Marijuana, and Tobacco

Depression

Death in Adolescence

Deaths from Vehicle Accidents and Firearms

Suicide

COGNITIVE DEVELOPMENT

ASPECTS OF COGNITIVE MATURATION

Piaget's Stage of Formal Operations

- **Formal operations:** Piaget's final stage of cognitive development, characterized by the ability to think abstractly.

Hypothetical-Deductive Reasoning

- **Hypothetical-deductive reasoning:** Ability, believed by Piaget to accompany the state of formal operations, to develop, consider, and test hypotheses.

Evaluating Piaget's Theory

- **Metacognition:** Awareness and monitoring of one's own mental processes and strategies.

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Elkind: Immature Characteristics of Adolescent Thought

Six Characteristics of Immature Adolescent Thought:

1. *Idealism and Criticalness*
2. *Argumentativeness*
3. *Indecisiveness*
4. *Apparent Hypocrisy*
5. *Self-consciousness*
 - **Imaginary audience:** Elkind's term for an observer who exists only in an adolescent's mind and is as concerned with the adolescent's thoughts and actions as the adolescent is.
6. *Specialness and Invulnerability*
 - **Personal fable:** Elkind's term for the conviction that one is special, unique, and not subject to the rules that govern the rest of the world.

Changes in Information Processing in Adolescence

Structural Change

- *Structural changes:* Changes in information-processing capacity and the increasing amount of knowledge stored in long-term memory.
- **Declarative knowledge:** Acquired factual knowledge stored in long-term memory.
- **Procedural knowledge:** Acquired skills stored in long-term memory.
- **Conceptual knowledge:** Acquired interpretive understandings stored in long-term memory.

Functional Change

Language Development

- *Social perspective-taking:* The ability to understand another person's point of view and level of knowledge and to speak accordingly.

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Moral Reasoning: Kohlberg's Theory

Kohlberg's Levels and Stages

- Level I: **Preconventional morality**: First level of Kohlberg's theory of moral reasoning, in which control is external.
- Level II: **Conventional morality (or morality of conventional role conformity)**: Second level of Kohlberg's theory of moral reasoning, in which standards of authority figures are internalized.
- Level III: **Postconventional morality (or morality of autonomous moral principles)**: Third level of Kohlberg's theory of moral reasoning, in which people follow internally held moral principles and can decide among conflicting moral standards.

Evaluating Kohlberg's Theory

Family Influences

Validity for Women and Girls

Cross-cultural Validity

EDUCATIONAL AND VOCATIONAL ISSUES

Influences on Motivation and Achievement

Self-Efficacy Beliefs

- *Self-efficacy*: Belief in one's own mastery of situations, such as mastery of academic material.

Parenting Styles, Ethnicity, and Peer Influence

- *Authoritative parents*: Those who are warm, involved, and encourage their adolescents to be independent while maintaining reasonable control and discipline.
- *Authoritarian parents*: Those who are controlling without warmth, rigid, overly punitive, and discourage inquiry.
- *Permissive parents*: Those who seem not to care about adolescent grades and make no rules, and who are relatively uninvolved with their adolescents.

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Gender

The Educational System

Dropping Out of High School

- **Active engagement:** Involvement in schooling.

Educational and Vocational Preparation

Influences on Students' Aspirations

Guiding Students Not Bound for College