

Introduction to Behavioral Medicine

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Chapter Outline

- 1.1 What Is Behavioral Medicine?
- 1.2 Why we study behavioral medicine



Behavioral Science

Behavioral science is the study of human habits, actions, and intentions.

Behavioral science has three domains:

1. Psychology
2. Sociology
3. Anthropology

Psychology

- Psychology is the scientific study of the human mind and its functions and behavior.

Relevance and importance of Behavioral Science to Health & Medicine

Relevance is demonstrated in the:

- Etiology of illness,
- Presentation of illnesses,
- Delivery of health care,
- Aspects of social and psychological treatment.

Behavioral and social factors are important in planning for health care with assessment and treatment of both physical and psychiatric disorder.

MERITS OF AN EDUCATION IN PSYCHOLOGY

- 1- Psychology enables students to hone critical thinking skills.
- 2- Psychology enables students also to develop better communication skills.
- 3- Psychology enables students to understand the interaction of our biology, our environment, and our experiences in determining who we are and how we will behave.

Major perspectives of psychology

Biological	psychodynamic	Cognitive	Behavioral	Humanistic
View behavior from the prospective of biological functioning	Believe behavior is motivated by inner unconscious forces over which person has little control	Examines how people understand and think about the world	Focused on observable behavior	Contends that people can control their behavior and that they naturally try to reach their full potential

Developmental psychology

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Objectives:

- (1) Outline the principles of mental development.
- (2) Outline life tasks and the characteristics of mental development at each stage of the life cycle.
- (3) Outline genetic factors and environmental factors affecting mental development.

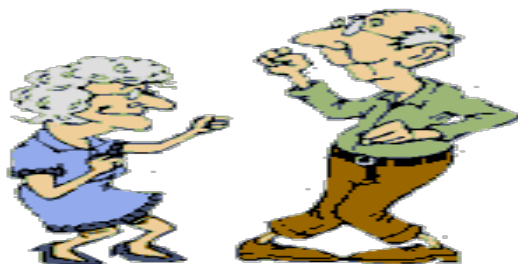
The branch of psychology that studying the patterns of growth and changes occurring throughout life is called developmental psychology

Human life span development



Human pass through 7 Life stages

- Infancy: Birth to one year
- Early Childhood: 1-6 years
- Late childhood: 6-12 years
- Adolescence: 12-18 years
- Early Adulthood: 19-40 Years
- Middle Adulthood: 40-65 Years
- Late Adulthood: 65 Years and Older



Growth and development

- **Growth** – the measurable physical changes that occur throughout a person's life.

Examples: height, weight, body shape, dental structure (teeth)

- **Development** – Refers to the changes in intellectual, mental and emotional skills that occur over time. Think, maturation.

Four main types of growth and development

1. **Physical**: body growth that includes height and weight changes. It involves growth and changes in the brain, the senses, motor skills, and health
2. **Mental**: intellectual development, problem solving, learning, attention, memory, language, thinking, reasoning, and creativity.
3. **Emotional**: refers to feelings and includes dealing with love, hate, joy, fear, excitement, and other similar feelings.
4. **Social**: refers to interactions and relationships with other people.

Nature and nurture

- The issue of the degrees to which environment and heredity influence behavior and development
- Heredity defines people's general level of intelligence, setting an upper limit which – regardless of the quality of the environment – people cannot exceed
- Heredity provides limits on physical activities

- Genetics potentiality of appearance of behavior and limitation of the appearance of appearance
- Role of learning
- How to study effects of nature and nurture (twins study, adoption study, identical twins reared in different environment and those reared in similar environment, non- identical twins reared at the same environment , siblings reared in same environment, non- biological identical individuals reared in same environment)

Table: characteristics influenced significantly by genetic factors

Physical characteristics	Intellectual characteristics	Emotional characteristics and disorders
Height Weight Obesity Tone of voice Blood pressure Tooth decay Athletic ability Firmness of hand shake Age of death Activity level	Memory Intelligence Age of language acquisition Reading disabilities Mental retardation	Shyness Extraversion Emotionality Neuroticism Schizophrenia Anxiety alcoholism

Theories of development

1.PSYCHOANALYTICAL THEORY OF DEVELOPMENT:

Sigmund Freud (1856–1939)

2.PSYCHOSOCIAL THEORY OF DEVELOPMENT. Erik

Erikson (1902–1994)

3.COGNITIVE THEORY OF DEVELOPMENT : Jean Piaget

(1896–1980)

4.THEORY OF MORAL DEVELOPMENT: Lawrence

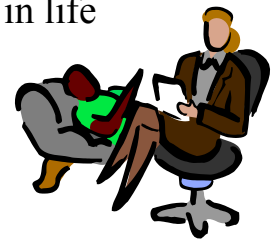
Kohlberg (1927–1987)

Psychoanalytic Theories

- Mental life is primarily unconscious— beyond awareness.
- Mental life is heavily colored by emotion and early experiences with parents extensively shape behavior.

Sigmund Freud (1856-1939):

- Medical doctor specializing in neurology -> Dynamic approach
- Developed ideas about psychoanalytic theory from work with mental ill patients
- Considered problems to be the result of experiences early in life

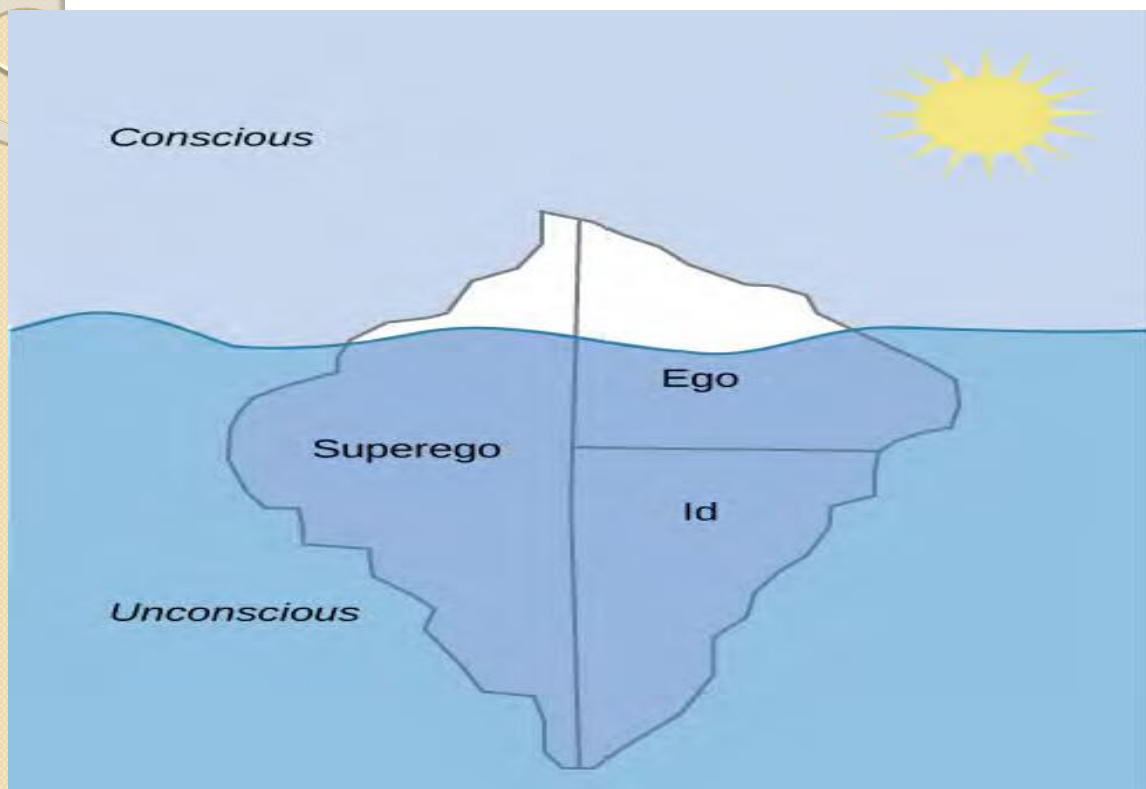


Freud's Structures of Personality

Id

Ego

Superego



Psychosexual Development

- Five stages
- Each stage focuses on a part of the body for experiencing pleasure.
- How conflicts between sources of pleasure are resolved determines adult personality.

The Five Stages of Psychosexual Development

- The Oral Stage (Birth to 18 months)
- The Anal Stage (18 months to 3 years)
- The Phallic Stage (3 to 6 years)
- The Latent Stage (6 years to puberty)
- The Genital Stage (Puberty on)

The Oral Stage (Birth to 18 months)

- Pleasure centers around the mouth.
- Chewing, sucking, biting are sources of pleasure.





The Anal Stage (18 months to 3 years)

- Pleasure centers around the anus.
- Eliminative functions are sources of pleasure.



The Phallic Stage (3 to 6 years)

- Pleasure focuses on the genitals.
- Self-manipulation is a source of pleasure.
- Oedipus Complex appears.

Definition of the Oedipus Complex

- *The Oedipus Complex is Freud's term for the young child's development of an intense desire to replace the same-sex parent and enjoy the affections of the opposite-sex parent.*



Resolution of the Oedipus Complex

- Children recognize that their same-sex parent might punish them for their incestuous wishes.
- To reduce this conflict, the child identifies with the same-sex parent, striving to be like him or her.



The Latent Stage (6 years to puberty)

- The child represses all interest in sexuality.
- The child develops social and intellectual skills.
- Energy is channeled into emotionally safe areas.
- The child forgets the highly stressful conflicts of the phallic stage.



The Genital Stage (puberty onward)

- This is a time of sexual reawakening.
- The source of sexual pleasure comes from someone outside the family.





Individuals may develop a fixation

When conflict is not resolved

Definition of Fixation

A fixation occurs when the individual remains locked in an earlier developmental stage because needs are under- or over-gratified.



Examples of Fixations

- **Oral** - Due to a parent weaning too early, as an adult the individual seeks out oral gratification through smoking, drinking, gum chewing.
- **Anal** - Due to a parent being too strict with potty training, as an adult the individual is excessively neat and orderly (known as “Anal Retentive”).
- **Phallic** - Due to a parent punishing the child for masturbating, as an adult the individual seeks out pornography.
- **Genital** - Due to a parent smothering a child with too much attention, as an adult the individual has difficulty in romantic relationships due to being extremely “needy.”

Freud's Stages of Psychosexual Development

Stage	Age (years)	Erogenous zone	Major Conflict	Adult Fixation examples
Oral	0-1	Mouth	Weaning off breast or bottle	Smoking overeating , bites her nails
Anal	1-3	Anus	Toilet training	Neatness, messiness
Phallic	3-6	Genitals	Oedipus/ Electra complex	Vanity, overambition
Latency	6-12	Non	Non	Non
Genital	12+	genitals	Non	Non

PSYCHOSOCIAL THEORY OF DEVELOPMENT

- **Attachment:**

The positive emotional bond that develops between a child and a particular individual:

- Konrad Lorenz, child follows their mother, the first moving object to which they are exposed after birth (imprinting)
- Harry Harlow; human attachment grow through the responsiveness of infant's caregivers to the signals the babies provide, such as cries, smile, reaching and clinging. The greater the responsiveness of the caregiver to the child's signals, the more likely it is that the child will become securely attached.

PSYCHOSOCIAL THEORY OF DEVELOPMENT

(Erik Erikson (1902–1994))

- The primary motivation for human behavior is social and reflects a desire to affiliate with other people.
- Eight stages of development unfold throughout the entire life span.
- Each stage consists of a unique developmental task that confronts individuals with a crisis that must be faced.
- Crises are not catastrophes but rather turning points of increased vulnerability and enhanced potential.
- The more an individual resolves the crises successfully, the healthier development will be.

• *Assumptions of Erikson's Theory of Psychosocial Development*

- Stages
- Psychosocial challenge (*crisis*) opportunities for development
- Negative resolutions = Personality imperfections
- Move through stages, regardless of resolutions

Stage	Action	+ Resolution	- Resolution
Trust v. Mistrust (0-1)	Trusts develops	Trust, relaxed, optimistic	See life as unpredictable
Autonomy v. Shame/ Doubt (1-3)	Independence fostered by mastery	Good sense and command of their will power	Fear being exposed as inadequate
Initiative v. Guilt (3-6)	Exploratory attitude	Clear sense of what they want in life	Self-restrictive and fear of making mistakes

Stage	Action	+ Resolution	- Resolution
Industry v. Inferiority (6-12)	Enjoyment of mastery comes through success and recognition	Relish achievement and like to tackle challenge	Feel inadequate, incapable, lack ambition
Identity v. Confusion (12-18)	Identity through experimentation	Know who they are, what their goals are, and where they are going	See conflict in who they are and what they would like to be
Intimacy v. Isolation (Young adulthood)	Openness to others	Commitment to partnerships and ethics to abide by the commitments	Self-absorbed; identity too fragile to maintain uncertainties in relationships

Stage	Action	+ Resolution	- Resolution
Generativity v. Stagnation (Middle adulthood)	Concern for next generation	Concern for creation of better world. Focus on service to others	Lack long term-goals; live for short-term gratification
Integrity v. Despair (Old age)	Acceptance of one's life	Feel their lives have meaning and significance	View life as filled with missed opportunities

- **Trust vs. Mistrust**

- This stage occurs during the first year of life. Infants decide whether the world is friendly or hostile, depending on whether or not they can trust that their basic needs will be met. Trust and hopefulness are the outcomes of positive resolutions of this stage.

- **Autonomy vs. Shame and Doubt**

- Between the ages of 1 and 3, the child must develop a sense of control over bodily functions as well as over the environment. Successful resolution of this stage involves mastery of toilet training, walking, and other skills related to control of the self.



- **Initiative vs. Guilt**

- This is the stage that occurs at about three to six years of age and often corresponds with a child's entry into a broader social world outside the home. Children at this stage must take initiative and learn to assert themselves socially, without overstepping their bounds. The successful resolution of this stage results in the development of a sense of purpose.

- **Industry vs. Inferiority**

- Children from ages 6 to 12 are in this stage. They are now in school and are becoming accustomed to receiving feedback for their work. Thus, they must gain a sense of accomplishment and pride in their work. They begin to understand what they are capable of doing. The successful resolution of this stage produces a sense of competence.



- **Identity vs. Role Confusion**

- This stage involves the adolescent search for identity. Adolescents question what type of person they are and begin to develop their own values at this stage. The resolution of this stage is **fidelity**, or truthfulness to one's self.

- **Intimacy vs. Isolation**

- This is the stage of early adulthood when we attempt to form loving, lasting relationships. The successful resolution of this stage results in one's learning how to love in a mature, giving way. If this stage is not successfully resolved, feelings of isolation or a lack of intimacy may result.



- **Generativity vs. Stagnation**

- This stage occurs during middle adulthood and brings with it the struggle to be productive in both career and home and to contribute to the next generation with ideas and possibly with children. Being productive in these ways is called **generativity**. This is the stage where we try to leave our “mark” on the world. Failure to resolve this stage can result in feelings of **stagnation** or isolation.

- **Integrity vs. Despair**

- This stage occurs during old age and brings with it the struggle to come to terms with one’s life, which involves accepting both successes and failures. The positive outcome of this stage is wisdom, whereas the failure to resolve this stage can lead to bitterness and despair.



Erikson’s Psychosocial Stages of Development

Stage	Age (years)	Developmental task	Description
1	0-1	Trust vs. mistrust	Trust (or mistrust) that basic needs, such as nourishment and affection, will be met
2	1-3	Autonomy vs. shame/doubt	Develop a sense of independence in many tasks
3	3-6	Initiative vs. guilt	Take initiative on some activities—may develop guilt when unsuccessful or boundaries overstepped
4	7-11	Industry vs. inferiority	Develop self-confidence in abilities when competent or sense of inferiority when not
5	12-18	Identity vs. confusion	Experiment with and develop identity and roles
6	19-29	Intimacy vs. isolation	Establish intimacy and relationships with others
7	30-64	Generativity vs. stagnation	Contribute to society and be part of a family
8	65-	Integrity vs. despair	Assess and make sense of life and meaning of contributions

Parenting style and its relation to social development

Parenting style	Parent behavior	Children's behavior
Authoritarian	Rigid, punitive, strict standards	Unsociable, unfriendly, withdrawn
Permissive	Lax, inconsistent, undemanding,	Immature, moody,, dependent, low self-control
Authoritative	Firm, sets limits, and goals, uses reasoning, encourages independence	Good social skills,, likable self-reliant, independent
Uninvolved	Detached emotionally, sees role as only providing food, clothing, and shelter	Indifferent, rejecting behavior

COGNITIVE THEORY OF DEVELOPMENT

Jean Piaget (1896–1980)

- Swiss psychologist
- Observed his own children to develop theory of cognitive development
- He believed that thinking is a central aspect of development and that children are naturally inquisitive كثير الاستعلام. However, he said that children do not think and reason like adults.
- His theory of cognitive development holds that our cognitive abilities develop through specific stages, which exemplifies the discontinuity approach to development.
- As we progress to a new stage, there is a distinct shift in how we think and reason.



Piaget's Cognitive Development Theory

- Children actively construct their understanding of the world.
- Children progress through four stages of cognitive development.



Piaget's Cognitive Development Theory

Children actively construct their understanding of the world.

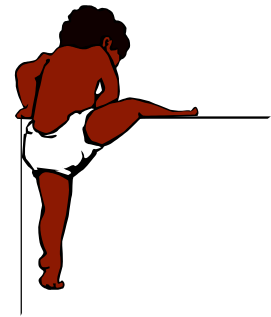
Children progress through four stages of cognitive development.

Piaget's Four Stages of Cognitive Development

- Sensorimotor Stage (0-2 yrs.)
- Preoperational Stage (2-7 yrs.)
- Concrete Operational Stage (7-11 yrs.)
- Formal Operational Stage (11 and up)

The Sensorimotor Stage (0-2 years)

- Infants construct an understanding of the world by coordinating sensory experiences with physical, motor actions.
- Acquire Object permanence, development of goal-oriented behavior



The Preoperational Stage (2-7 years)

- Children begin to represent the world with words, images, and drawings.
- Language represents a shift to **symbolic thinking**, or the ability to use words to substitute for objects.
- Other characteristics of the stage are **egocentrism**, seeing the world only from one's own point of view, **artificialism**, believing that all things are human-made, and **animism**, believing that all things are living.



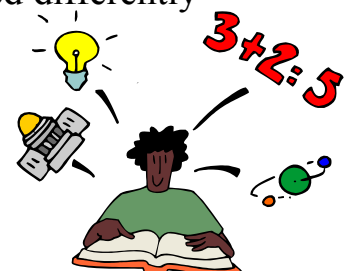
Definition of Operations

- *Internalized mental actions that allow children to do mentally what they previously did physically*



The Concrete Operational Stage (7-11 years)

- Children can perform mental operations.
- Logical reasoning replaces intuitive thought, as long as reasoning can be applied to concrete examples.
- children develop the ability to perform a mental operation and then reverse their thinking back to a starting point, a concept called **reversibility**.
- Another important concept is **conservation**—the idea that the amount of a substance does not change just because it is arranged differently



Formal operational stage

- This stage begins at about age 12. At this level, children are fully capable of understanding abstractions and symbolic relationships. They are also capable of **metacognition**, or the ability to recognize one's cognitive processes and adapt those processes if they aren't successful.
- The formal operational stage is also the point at which a child acquires hypothetical reasoning, which is the ability to figure out answers to problems with which a person does not have direct experience. For example, a child in the concrete operational stage would have great difficulty imagining how the world might change as a result of an alien invasion, while a 12- year-old could posit numerous theories on the issue.

Piaget's Stages of Cognitive Development

Age (years)	Stage	Description	Developmental issues
0-2	Sensorimotor	World experienced through senses and actions	Object permanence Stranger anxiety
2-6	Preoperational	Use words and images to represent things, but lack logical reasoning	Pretend play Egocentrism Language development See death reversible Lack of law of conservation
7-11	Concrete operational	Understand concrete events and analogies logically; perform arithmetical operations	Conservation Mathematical transformations See death as irreversible See things from other perspective
12-	Formal operational	Formal operations Utilize abstract reasoning	Abstract logic Moral reasoning

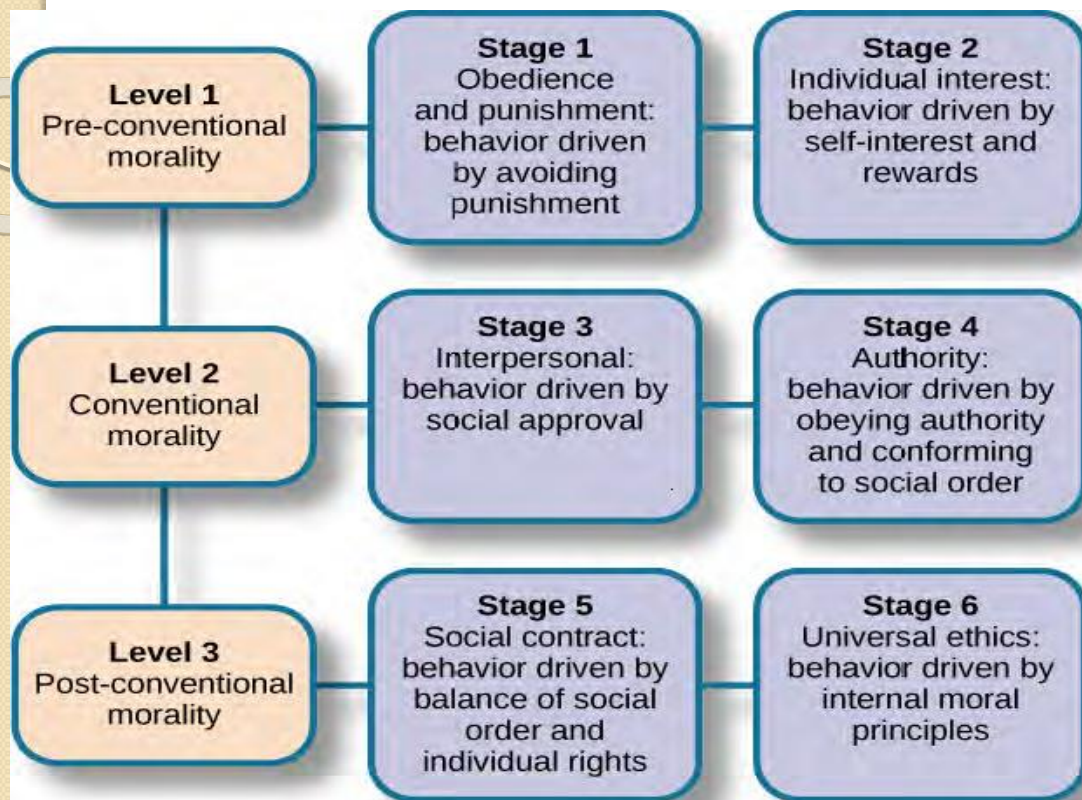
THEORY OF MORAL DEVELOPMENT

Lawrence Kohlberg (1927–1987)

- Kohlberg believed that moral development, like cognitive development, follows a series of stages.
- To develop this theory, Kohlberg posed moral dilemmas to people of all ages, and then he analyzed their answers to find evidence of their particular stage of moral development.
- Kohlberg identified three levels of moral reasoning: pre-conventional, conventional, and post-conventional: Each level is associated with increasingly complex stages of moral development.

Kohlberg Moral Development

- **Questions of conscience** solidifies during adolescence
- **Kohlberg-** said- we learn moral values through thinking and reasoning
- Found- 3 levels of moral development based on reasoning



Self-Concept

- Infants don't have a self-concept, which is an understanding of who they are. If you place a baby in front of a mirror, she will reach out to touch her image, thinking it is another baby.
- by about 18 months a toddler will recognize that the person in the mirror is herself
- Children from 2–4 years old display a great increase in social behavior once they have established a self concept.
- What can parents do to nurture a healthy self-concept? Diana Baumrind (1971, 1991) thinks parenting style may be a factor. The way we parent is an important factor in a child's socio-emotional growth. Baumrind developed and refined a theory describing four parenting styles: **authoritative, authoritarian, permissive, and uninvolved.**

Death and Dying

- Death marks the endpoint of our lifespan. There are many ways that we might react when facing death.
- Kubler-Ross developed a five-stage model of grief as a way to explain this process.



**Thank you for
attention**