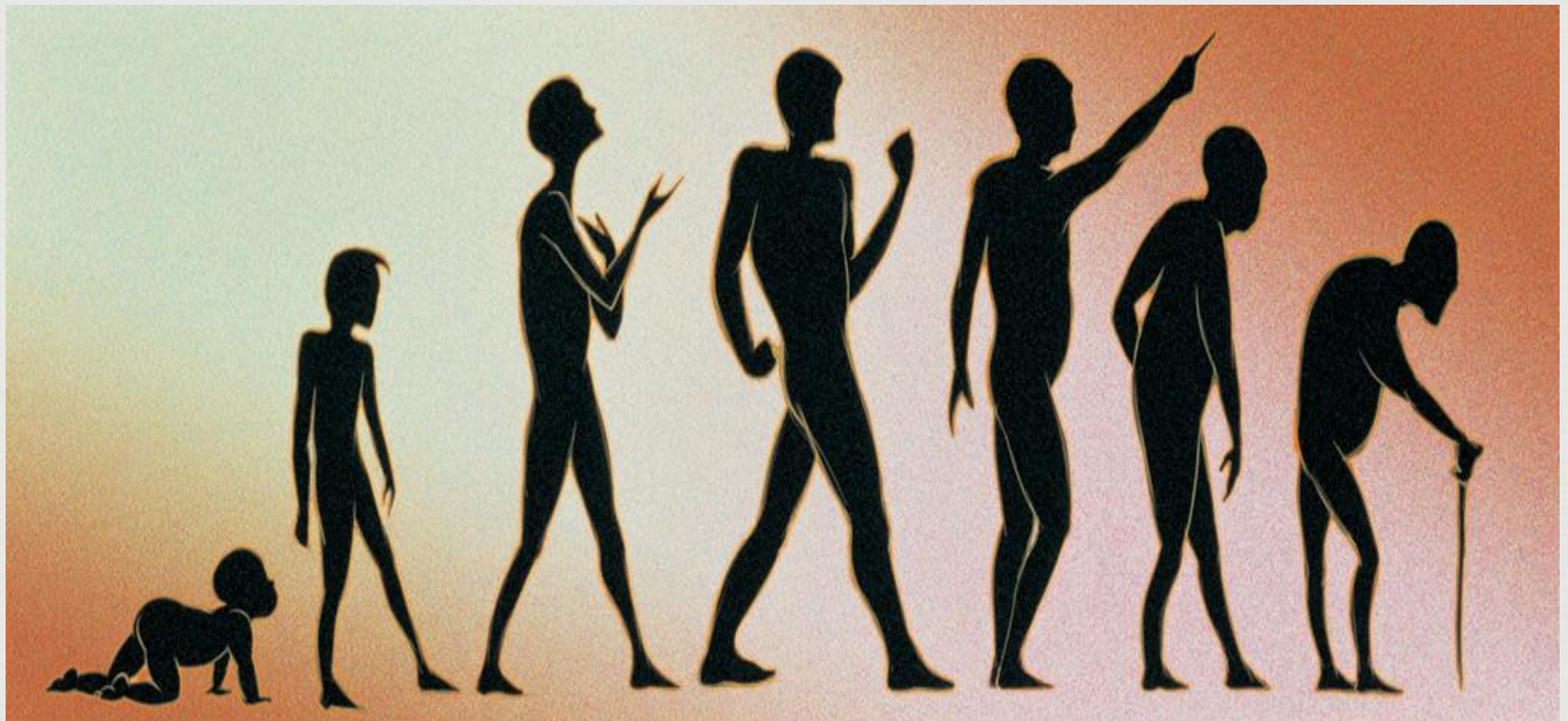
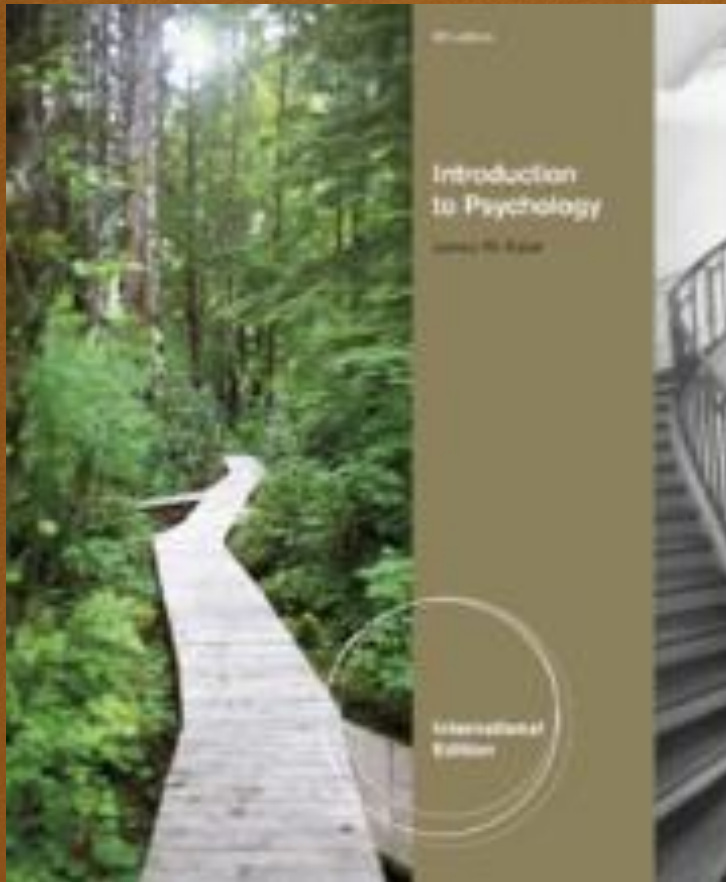


# Human Development



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# Chapters 5 of the required textbook



**Introduction to Psychology**  
International Edition  
by **James Kalat** (2010)  
9<sup>th</sup> Edition



# Expected Learning Outcomes



*After studying this part, the student nurse is expected to:*

1. discuss how human develop in different dimensions: physical, perceptual, social, emotional, cognitive, moral;
2. distinguish growth and development and trace the sequence of stages in the human life cycle;
3. identify the developmental tasks each human being undertake according to the theories of Sigmund Freud, Eric Erickson and H.S. Sullivan
4. relate the concept of human development in understanding patient especially children for their pediatric nursing practice.

# Introduction



...In order to fully understand the behavior of each patient, the nurse must always go back in the process of understanding growth and development.



- It is an established concept in psychology that behaviors are learned during the growing years, especially before a child reaches the age of seven.
- All experiences, frustrations and in terms of Sigmund Freud who coined *Fixations* – the unmet needs will define who a person really is?

# PERIODS OF DEVELOPMENT



*...In nursing care there is an accepted view of human development that is based on four facets of development that include:*

1. Psychological,
2. Emotional,
3. Biological and
4. Motor developments which are also the basis of under-six clinical or under six treatments on most of the out patient department (OPD).



- 1. Prenatal Period** – *(from conception to birth)*. It is a time of tremendous growth – from a single cell to an organism complete with brain and behavioral capabilities, produced in approximately 9-month period.
- 2. Infancy** *(the development stage extending from birth to 18 or 24 months)*. It is a time of extreme dependence upon adults. Many psychological activities are just beginning – language, symbolic thought, sensorimotor coordination and social learning.



**3. Early childhood** (*the developmental period extending from the end of infancy to about 5 to 6 years*). This period is sometimes called the “preschool years.” Young children learn to become more self-sufficient and to care for themselves, develop school readiness skills such as following instructions, identifying letters and spend many hours in play with peers.





**4. Middle and late childhood** (*the period extending from about 6–11 years of age*). This is sometimes called the “elementary school years.” The fundamental skills of reading, writing, and arithmetic are mastered.



5. **Adolescence** (*the developmental period of transition from childhood to early adulthood*). There is dramatic gains in height and weight, changes in body contour, and the development of sexual characteristics such as enlargement of the breasts, development of pubic and facial hair, and deepening of the voice.



**6. Early adulthood** (*the developmental period beginning in the late teens or early twenties and lasting through thirties*). It is a time of establishing personal and economic independence, a time of career development, and a time of selecting a mate, learning to live with someone in an intimate way, starting a family and rearing children.



**7. Middle adulthood** (*the developmental period beginning at approximately 35 to 45 years of age and extending to the sixties*). It is a time of expanding personal and social involvement and responsibility; of assisting the next generation in becoming competent, mature individuals; and of reaching and maintaining satisfaction in one's career.



**8. Late adulthood** *the developmental period beginning in the sixties or seventies and lasting until death*). It is a time of adjustment to decreasing strength and health, life review, retirement, and adjustment to new social roles.

# Physiological Development



- Developmental psychologists analyze age-related changes that occur throughout the human life cycle from conception until death.
- The nature-nurture debate has motivated the study of development, that is, an individual's development determined by heredity or environment?



- 1. Principle of Variability.** It states that development is an orderly process. Maturation proceeds from “fits and starts” rather than in a continuous, smooth fashion. The rate is constant.
- 2. Principle of Independence.** Different parts and systems of the body develop in largely independent patterns and sequences.



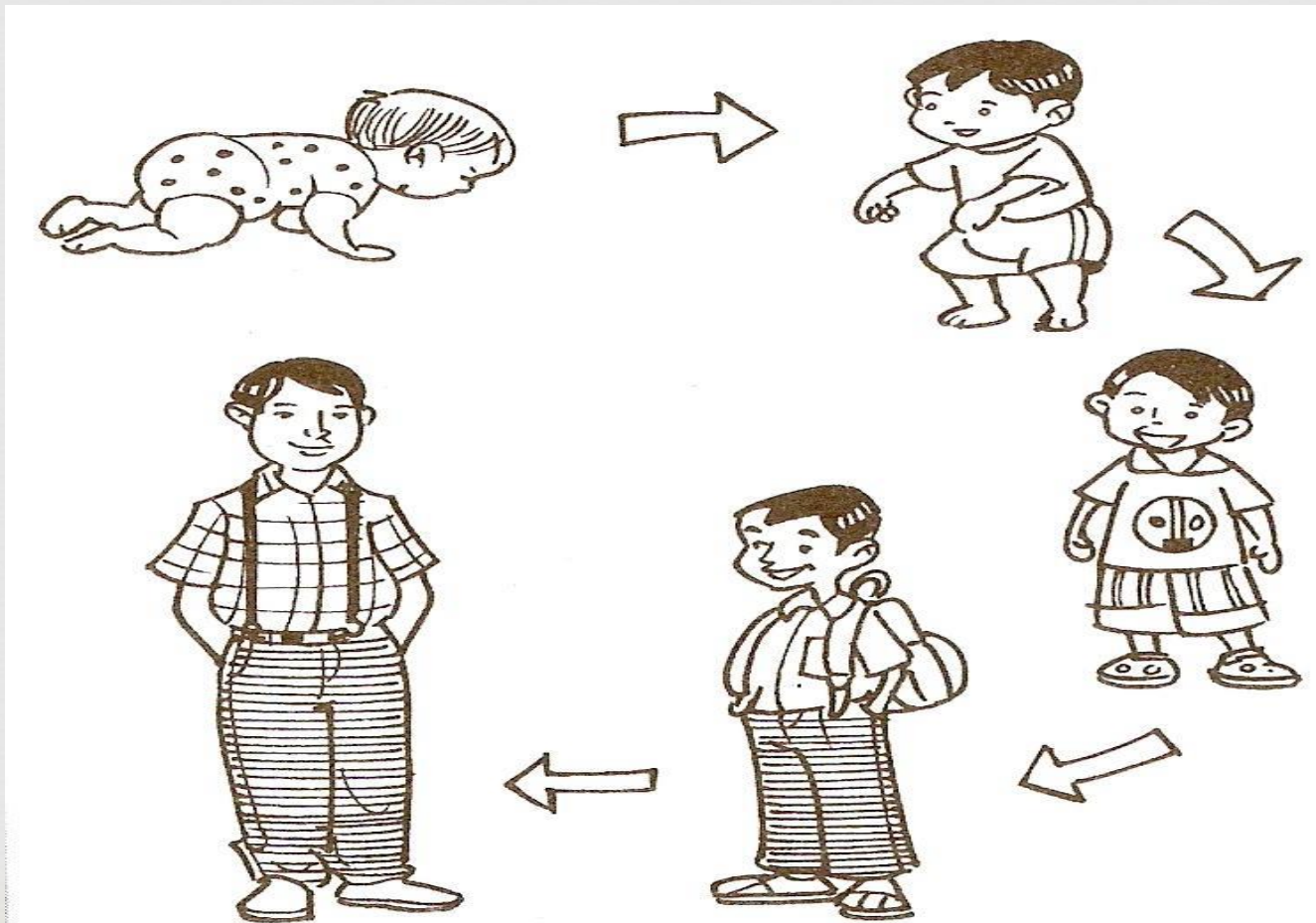
- 3. Principle of Differentiation.** Differentiation increases with development. Development occurs along the line from its head to its tail (cephalo-caudal); from whole body to specific (proximo-distal).
- 4. Principle of Integration.** Integration increases with development. Motor actions which are awkward at first become coordinated soon.





5. **Principle of Predictability.** Infants follow a certain pattern of motor development but the age at which one child achieves such acts may be different from that of the other.
  
6. **Principle of Limitation.** Maturation sets the limits on learning. An infant cannot learn to control movements until his skeleton and his nervous and muscular systems are sufficiently mature to permit such learning.

# STAGES OF DEVELOPMENT



# Physical Development



1. **Pre-natal Development** is the period of development from **conception to birth**. The average pregnancy lasts 270 to 280 days or 40 weeks. At conception the sperm cell fertilizes the egg cell while it was staying at the Fallopian tube. This fertilized egg is called zygote. As it travels down the Fallopian tube to the uterus, the zygote divides then attaches itself to the uterine wall.

<b>Age</b>	<b>Characteristics</b>
<b>Week 2</b>	Implantation on uterine wall
<b>Week 3–4</b>	Heart begins to pump
<b>Week 4</b>	Digestive system begins to form, followed by eyes
<b>Week 5</b>	Ears form
<b>Week 6</b>	Arms and legs appear
<b>Week 7–8</b>	Male sex organ form; fingers form
<b>Week 9</b>	Bones, legs and arms, and toes form
<b>Week 10–11</b>	Female sex organ forms
<b>Week 12</b>	Fetus weighs about one ounce; fetal movement occurs; fingerprints form
<b>Week 20</b>	Mother feels movement; reflexes (sucking, swallowing, and hiccupping) appear; nails, sweat glands, and soft hair develop
<b>Week 38</b>	Fetus weighs about 7 pounds
<b>Week 40</b>	Full-term baby born

**Table 3.1** *The normal biological development of the human zygote*

# Factors that Influence an Unborn Child

1. German measles (rubella) results in deafness, cataract, mental deficiency or heart disease in the baby.
2. Syphilis, malaria, small pox, chicken pox and mumps are infectious diseases caused by agents small enough to pass through placenta, can result in deformities or defects.
3. Maternal malnutrition as well as anoxia (lack of oxygen) and infectious diseases affect development of the fetus (premature births and stillborns).

4. Alcohol and smoking increases fetal heartbeat.
5. Effects of x-rays and other forms of radiation may affect the mentality of the child.
6. Emotional states of the mother can influence an unborn child.

7. Endocrine irregularities are found to be factors.
8. Blood incompatibility or RH positive and RH positive (man and woman) results to stillborn or mentally retarded child.

9. Use of drugs such as methadone easily crosses the placental barrier and may impede the fetus' normal development (premature or small).
10. Effects of pills or medicines taken by the mother may result in deformities in the child as in the case of thalidomide (stunted limbs and deformed bodies)



# Motor Development



- ❧ Maturation is a term used to describe a genetically programmed biological plan of development that is relatively independent of experience.
- ❧ The proximo-distal principle of development describes the center-outward direction of motor development.



- ❧ Children can control their torso before their extremities.
- ❧ They can sit before they stand.
- ❧ The cephalo-caudal principle describes the head-to-foot direction of motor development.
- ❧ Children tend to gain control over the upper portions of the body before the lower part. They can reach and grasp before they can walk.

Age	Characteristics
1 month	Lies prone on stomach, can lift head
2 months	Lies prone, can hold chest up, can roll from side to back
3 months	Can roll over; reaches for objects
6-7 months	Sits without support; stands holding on to objects
8-12 months	Crawls; pulls itself to stand; cruises, or walks holding on to objects
12-18 months	Walks by itself

**Table 3.2** *Development norms of the motor system in a child*

# Perceptual Development



- ❧ The five senses are functional at birth.
- ❧ Infants can hear before birth.
- ❧ Newborn infants appear capable of discriminating between sounds of different duration, loudness and pitch.
- ❧ Newborns appear to prefer human voice.
- ❧ By six months, infants can discriminate between any two basic sounds used in language.



- ❧ A number of reflexes (involuntary responses to stimuli) can be elicited in infants.
- ❧ Infants blink their eyes when a light shine.
- ❧ Other reflexes such as Moro (*extension of arms when infant feels a loss of support*), Palmar (*hand grasp*), and rooting (*turns toward object brushing cheek and attempts to suck*).



- ❧ The Moro reflex or response is characterized by the spreading out of the legs and arms followed by the clasping of the arms.
- ❧ These reactions during the first three months of existence may be provoked or induced by sudden noise or may be due to loss of balance, support or equilibrium.

# Social Development



- ☞ Children also grow socially as they develop.  
Temperament refers to a child's characteristic mood and activity level.



- Easy Infants (40%) – were adaptable to new situations; predictable in their rhythmicity or schedule; positive in their mood.
- Difficult Infants (10%) – intense in their reactions; not very adaptable to new situations; slightly negative mood; irregular body rhythms.
- Slow-to-warm up Infants (15%) – initially withdraw when approached but may later “warm up”; slow to adapt to new situations.
- Average Infants (35%) – did not fit into any of the above categories.



# Gender Role Development



- ❧ Gender roles are our set of expectations about appropriate activities for males and females.
- ❧ Research has shown that even preschoolers believe that males and females have different characteristics.



# Cognitive Development



...Jean Piaget, a Swiss researcher and writer developed a theory of cognitive development.

1. The Sensorimotor Stage (*from birth to 18 months of age*);
2. Preoperational Stage (*two to seven years of age*);
3. The Concrete Operations Stage (*seven to twelve years of age*); and
4. Formal Operations (*12 years onwards*).



- 1. Sensorimotor Stage.** Children think as a result of coordination of sensory input and motor responses. Intelligence is non-verbal or non symbolic because the child has not developed language yet.
- 2. Preoperational Stage** is where thinkers can now symbolize or mentally represent their world. A period dominated by a rapid development of language.



3. In the concrete operations stage, mathematical operations develop. They have difficulty dealing with hypothetical problems because thinking can only be applied to concrete objects or events.
4. Formal operational thinkers can handle hypothetical problems. Scientific reasoning is possible. The formal thinker is capable of understanding and appreciating symbolic abstractions of algebra and literary criticism as well as metaphor in literature.



# Psychosexual Development of Human Development



## 1. Oral Stage . *0-1½ yrs, baby, birth to walking*

Feeding, crying, teething, biting, thumb-sucking, weaning - the mouth and the breast are the centre of all experience.

## 2. Anal Stage . *1-3 yrs, toddler,*

Toilet training. It's a lot to do with pooh - 'holding on' or 'letting go' - the pleasure and control. Is it dirty? Is it okay? Bodily expulsions are the centre of the world, and the pivot around which early character is formed.



### 3. Phallic Stage. *3-6 yrs,*

Pre-school, nursery. This stage is focused on resolving reproductive issues.

(Boys) I'm going to marry mum (and maybe kill dad).

(Girls) I'm in love with my dad. *Oedipus Complex*, Penis envy, Castration Anxiety, etc.



#### 4. Latency Stage. *5-12 yrs*

Early school. The focus is on learning, skills, schoolwork. Experiences, fears and conditioning from the previous stages have already shaped many of the child's feelings and attitudes and these will re-surface in the next stage.



## 5. Genital stage. *11-18 yrs*

Puberty, teens (earlier for girls)

Boys start treating their mothers like woman-servants and challenge their fathers (Freud's 'Oedipus'). Girls flirt with their fathers and argue with their mums (Freud's 'Electra').





# Psychosocial Stages of Development



- ❧ Erikson proposed eight stages of social-emotional/personality development.
- ❧ Erikson believed that personality continues to develop over the entire life span (and not just childhood).
- ❧ Each stage represents a task or dilemma that must be resolved.

Psychosocial Crisis Stage	Life Stage	Age range and other characteristics
1. Trust vs. mistrust	Infancy	0–1½ years, baby, birth to walking
2. Autonomy vs. shame and doubt	Early childhood	1–3 years, toddler, toilet training
3. Initiative vs. guilt	Play age	3–6 years, preschooler, nursery
4. Industry vs. inferiority	School age	5–12 years, early school
5. Identity vs. role confusion	Adolescence	9–18 years, puberty, teens
6. Intimacy vs. isolation	Young adult	18–40 years, courting, early parenthood
7. Generativity vs. stagnation	Adulthood	30–65 years, middle age, parenting
8. Integrity vs. despair	Mature age	50+ years, old age, grandparents

**Table 3.3** *The psychosocial stages of development*



- 1. Trust versus mistrust (first year of life):** Needs of infants must be met by caretakers who are responsive and sensitive. Trust develops if these are met, if not, mistrust and fear of the future results.
- 2. Autonomy versus Shame (1-3 years):** Children express self-control exploring, climbing etc. Parents can foster autonomy by encouraging children to try new things. If restrained or punished too harshly, shame and doubt can develop.



- 3. Initiative versus Guilt (3-5 years):** Children are asked to assume more responsibility. Parents can encourage initiative by giving children the freedom to play, to use their imagination, etc.
  
- 4. Industry versus Inferiority (6-12 years):** Children learn from school social values. Success or failure while learning these skills can have lasting effects on a child's feelings of adequacy.



## **5. Identity versus Role Confusion (Adolescence):**

Finding out who we are, what we value, and where we are headed in life. This search for identity, adolescents experiment with different roles.

## **6. Intimacy versus Isolation (Young Adulthood):**

After establishing an identity, a person is prepared to form deep, intimate relationships with others. Failure could lead to a deep sense of isolation.



7. **Generativity versus Stagnation (Middle Adulthood):** The focus of middle adulthood is an interest in guiding the next generation. This can be done through creative or productive work or through caring for children.
  
8. **Integrity versus Despair (Late Adulthood).** A time for looking back at our lives. If we believe that our lives have been well spent, a sense of integrity develops. If not, a sense of despair over the value of one's life will result.

# Emotional Development



- ❧ One may identify emotional reactions by noting the baby's reactions and behavior and the situation to which he is responding.
- ❧ By crying, kicking, cringing or withdrawing the child indicates the way he or she is feeling.



☞ Studies of emotions point to the many-sided importance of emotions that not just the pleasant ones play a very important aspect in child's life and that each emotion contributes to the kind of personal and social adjustments the child makes.



❧ Emotions prepare the body for action.

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❧ Emotions color the child's outlook in life, affect social interaction, leave their mark on facial expression, and affect the psychological climate.



- ❧ Anger and jealousy prompt social interaction. One learns to modify or redirect emotions to conventions, conformity, generally accepted standards and expectations.
- ❧ Any emotional expression that gives satisfaction to the child tends to be repeated, leads to the formation of habits.



☞ A child who discovers that his or her temper tantrums help get what the child wants, leads to repeat such tantrums to obtain his or her desires the easy and quick way and such habit is carried forward to later stages in life of adulthood.



☞ Love, Fear and Anger. Children learn to love the person who satisfies their physical needs.



# Moral Development by Kohlberg



## Level I. Pre-conventional Morality

Stage 1: Punishment Orientation: A person complies with rules during this stage in order to avoid punishment.

Stage 2: Reward Orientation: An action is determined by one's own needs.



## Level II. Conventional Morality

Stage 3: Good girl/Good boy Orientation: Good behavior is that which pleases others and gets their approval.

Stage 4: Authority Orientation: Emphasis is on upholding the law, order and authority and doing one's duty by following societal rules.



## Level III. Post Conventional Morality

Stage 5. Social Contract Orientation: Flexible understanding that people obey rules because they are necessary for the social order but that rules can change if there is good reasons and better alternatives.

Stage 6. Morality of Individual Principles Orientation: Behavior is directed by self-chosen ethical principles. High value is placed on justice, dignity and equality.

# KEY POINTS



- ❧ Growth refers to quantitative changes such as increase in body size and structures, while development refers to qualitative changes.
- ❧ Development is a process of progressive, orderly, and related changes, with a definite and well-defined relation between a given period and the stage which follows in the individual's life.





- ❧ The developmental periods can be distinguished as prenatal, infancy, early childhood, middle and late childhood, adolescence, early adulthood, middle adulthood, and late adulthood.
- ❧ Development is produced by the interplay between heredity and environment or maturation and experience.
- ❧ The prenatal development of an individual has three stages: *the germinal, embryonic, and fetal stages.*



- ❧ Piaget's theory of cognitive development has four stages: *sensorimotor, preoperational, concrete operations, and formal operations.*
- ❧ Erikson's eight stages of socio-emotional development each represents a task or dilemma that must be resolved.
- ❧ Kohlberg's model of moral development is based on an individual's responses to moral dilemmas.