

DEVELOPMENTAL PATTERNS IN EARLY CHILDHOOD

26.1 INTRODUCTION

Development of a human being from a *zygote* to a *full grown adult* is a subject that has fascinated people over generations. Not only is this knowledge useful as a tool for understanding self, but also for guiding the growth of children.

26.2 OBJECTIVES

After reading this lesson, you will be able to :

- list the stages of the human life span;
- outline the various processes of development;
- describe the patterns of growth and development;
- name the common factors effecting development;
- enumerate the characteristics of the early childhood child.

26.3 STAGES IN THE LIFE SPAN

Human development can be better understood if we focus on its different stages while relating to the whole. The human life span can be divided into the following stages :

1. Prenatal period—conception to birth
 2. Period of the neonate—birth to one month
 3. Infancy — 1 month to 2 years
 4. Early childhood—2 to 6 years
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5. Middle childhood—6 to 11 years
6. Adolescence—11/12 to 18/19 years
7. Early Adulthood—18/19 to 40 years
8. Middle age— 40 to 60 years
9. Old age—60 and above

26.4 PATTERNS OF DEVELOPMENT

Development, which essentially means change is the result of the complex interactions between many processes—biological, social and cognitive.

1. Biological Processes : involve changes physical in nature. Our genetic heritage, growth of body organs, acquisition or motor skills, hormonal changes at puberty; all reflect the role of biological processes in development.

2. Cognitive processes: involve changes in the thinking intelligence and language of the child. Perception, attention, understanding, problem solving, memorising, imagining, all reflect the cognitive processes in children's development.

3. Social processes : involve the changes in the child's relationship with other people, emotions and personality. The first smile of an infant, the development of attachment between the mother and child, children learning to share, to assert, to take turns, to play with others, all reflect the social processes in development.

Try it yourself : List 10 examples each of cognitive, social and biological processes.

INTEXT QUESTIONS 26.1

Match the following :

- | I | II |
|--------------------------|--------------------------------|
| (i) neonate | (a) increase in height |
| (ii) adolescence | (b) 2—6 years |
| (iii) early adulthood | (c) 18/ 19 years—40 years |
| (iv) early childhood | (d) making friends |
| (v) cognitive process | (e) Birth-Month |
| (vi) social process | (f) watching & swinging mobile |
| (vii) Biological process | (g) 11—12 years to 18-19 years |
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26.5 GROWTH AND DEVELOPMENT IN EARLY CHILDHOOD

Growth and development are complementary processes. Growth indicates the quantitative changes in the body, eg, height, weight etc. while development refers to both the qualitative and quantitative changes, eg, language acquisition. Development can be defined as a 'progressive series of orderly coherent changes'.

All development takes place according to certain principles some of which are as follows :

1. All growth and development follow an orderly sequence.
2. Each child normally passes through a number of stages, each with its own essential characteristics.
3. There are individual differences in development.
4. Though the human being develops as a unified whole, each part of the body develops at different rates. Basically there are two sequences in the rate of development:
 - (a) Cephalocaudal i.e. development proceeds from head to toe eg. the head and brain will develop first, then the torso, then neck etc.
 - (b) Proximodistal i.e. development proceeds from centre to extremities eg the child first gains control over his spine, then arms, then fingers etc.
5. Development is essentially the result of the interaction between maturation and learning. While maturation is the 'unfolding of characteristics potentially present in the individual's genetic endowment', learning refers to the relatively enduring 'changes that come about as a result of experience and practise'.

Try it yourself Observe a 2 yr old and a 4 yrs old for gross motor skills (running, jumping, walking, climbing, stairs, hopping) and fine motor skills (grasping, pasting, eating with spoon, tying a string, combing hair, buttoning, unbuttoning etc.). Identify the sequence of development of skill. Also identify the comparative role of maturation and learning in development of each skill.

26.6 FACTORS AFFECTING GROWTH AND DEVELOPMENT

- (1) **Heredity** — The genes that we have inherited from our parents determine how tall or heavy we can be. It also determines our body-built and intellectual capacity.
- (2) **Prenatal environment** — The environment of the fetus is an important factor in its later growth. If the mother is getting poor nutrition or is emotionally upset or smokes, drinks, or takes some medicine or suffers from certain diseases ; the growth of the child can be adversely affected.

(3) **Nutrition**— Proper nutrition is essential for the healthy development of the child. A malnourished child's growth is either stunted or lopsided.

(4) **Intelligence**— Higher intelligence is associated with faster development while lower intelligence is associated with retardation in various aspects of development.

(5) **Emotional climate of home** — If there is a lot of discord/fights at home or the child is not given enough love and attention or there is physical/mental abuse of the child, then the child's development is adversely affected.

(6) **Health of the child** — If the child frequently falls sick, or suffers from some disorder, or is disabled or has disturbed endocrine functioning, his development is likely to suffer.

(7) **Level of stimulation** — The amount of stimulation the environment provides, the opportunities for exploration of environment, opportunities of interaction with other people, all influence the rate of development.

(8) **Socio-economic status** — will decide the kind of nutrition, stimulation, facilities, opportunities, genetic endowment the child will get and therefore affect the rate of his development.

(9) **Sex** — All children follow the same sequence of development, however certain skills like language acquisition, fine motor development is faster in girls than in boys who acquire other skills e.g. gross motor development sooner. Sex is also a factor that decides the potential of a child in physical development—boys growing up to be tall heavier and more muscular than girls.

INTEXT QUESTIONS 26.2

State whether the following statements are true or false :

- (1) Development always proceeds at the same rate.
 - (2) Development is affected only by the environment.
 - (3) Growth and development mean the same thing.
 - (4) Development usually follows the same sequence.
 - (5) Health of the pregnant woman will effect the development of her child.
 - (6) Marital discord can effect the development of the child.
 - (7) The more the child is allowed to explore the environment, the slower the development.
 - (8) Our learning potential is decided by our heredity.
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26.7 CHARACTERISTICS OF CHILDREN IN EARLY CHILDHOOD

Early childhood as stated earlier is the period from 2 to 6 years of age. This period is sometimes referred to as preschool period. In this stage children become more self-sufficient, begin to take care of themselves, acquire language, become a part of the group, become more coordinated, develop school readiness skills (following instructions, identifying letters etc.) and obtain a higher degree of self-control.

(A) FEATURES OF COGNITIVE DEVELOPMENT

- Realises that the world exists even if he/she cannot see it (object permanence)
- unable to see the perspective of others (egocentric)
- absence of logical thinking
- believes all things (living and non-living) to be possessing life and feelings
- indulges in fantasy and make-believe play
- easily confused by surface appearances
- uneven attention
- limited memory
- confused about causal relationships
- acquires basic concepts of colour, shape, size, number, days etc.
- high level of curiosity
- language changes from two word utterances to full sentences and grammatical usage.

(B) FEATURES OF PHYSICAL DEVELOPMENT

At 2 years :

- is 23-30 pounds in weight, 32-35 inches in height
- capable of bowel and bladder control
- can run, kick a ball, build a 3 cube tower

At 2-3 years :

- is 32-33 pounds in weight and 37-38 inches in height
- can jump off a step, ride a tricycle, use crayons, build a 8 cube tower etc.

At 3-4 years :

- is 38-40 pounds in weight and 40-41 inches in height
- self-sufficient in many routines in house e.g. dressing
- can stand on one leg, jump up and down, draw a circle and a cross etc.

At 4-5 years :

- is 42-43 pounds in weight, 43-44 inches in height
- has mature motor control, skips, dresses self, do long jump, copy a square and a triangle.

(C) FEATURES OF EMOTIONAL DEVELOPMENT

At 2 years :

- throws temper tantrums
- resentment of new baby (if present)
- negativism

At 2-3 years :

- fear of separation from others is significant
- negativistic
- differentiates facial expressions of anger, sorrow and joy
- has sense of humour

At 3-4 years :

- displays affection towards parent
- pleasure in genital manipulation
- imaginary fears of dark, monsters, injury etc.

At 4-5 years :

- experiences feelings of responsibility and guilt
- feels pride in accomplishment

(D) FEATURES OF SOCIAL DEVELOPMENT

At 2 years :

- does opposite of what he is told

At 2-3 years :

- copies parent's action
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- dependent, clinging
- possessive of possessions
- enjoys playing alongside a child

At 3-4 years :

- learns to share
- cooperative play with other children
- may enter nursery school
- begins to identify with same 'sex parent
- imaginary friends
- interest in human body
- practises sex role activities

At 4-5 years :

- prefers to play with other children
- becomes competitive
- prefers sex appropriate activities

Note : It must be remembered that these listed activities are just examples of some things that happen. Development has many other expressions and each is related with the other.

INTEXT QUESTIONS 26.3

State under which area of development each occurs :

1. cooperative play
 2. guilt
 3. object permanence
 4. learning sex roles
 5. fear of darkness
 6. imaginary friends
 7. jumping and hopping
 8. cutting and pasting
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26.8 WHAT HAVE YOU LEARNT

Prenatal
 Neonate
 Infancy
 Early childhood
 Middle childhood
 Adolescence
 Adulthood
 Middle adulthood
 Old age

LIFE SPAN STAGES

PROCESSES OF DEVELOPMENT

Biological
 Cognitive
 Social

- (i) All dev follows orderly sequence
- (ii) Indiv. Diff. in dev.
- (iii) Diff. parts of body dev. at Diff. rates
- (iv) Dev. result of interaction between maturation and learning.
- (v) Each child passes through a number of

PRINCIPLES OF GROWTH AND DEV

FACTORS AFFECTING GROWTH AND DEVELOPMENT

Intelligence
 Heredity
 Prenatal environment
 Nutrition
 Emotional climate
 Health
 Socio-economic Status
 Sex
 Level of stimulation.

Social
 Emotional
 Cognitive
 Physical

CHARACTERISTICS OF EARLY CHILDHOOD

26.9 TERMINAL EXERCISE

- (1) List the principles of growth and development.
- (2) Pick out a child who is big for his age and another who is small for his age and identify factors influencing their development.
- (3) Observe a 3 years old over a period of a week and list his state of social, emotional, physical and cognitive development.

26.10 ANSWERS TO INTEXT QUESTIONS

- 26.1** (i) (e) (ii) (g) (iii) (c)
 (iv) (b) (v) (f) (vi) (d)
 (vii) (a)
- 26.2** (1) F (2) F (3) F
 (4) T (5) T (6) T
 (7) F (8) T

26.3

- (1) Social development
- (2) Emotional development
- (3) Cognitive development
- (4) Social development
- (5) Emotional development
- (6) Social development
- (7) Physical development
- (8) Physical development