

Growth and Development

Course

Principles of Health Science

Unit VIII

Human Growth and Development

Essential Question

How does growth and development influence patient care?

TEKS

130.202 (c) 1J

Prior Student Learning

An introduction to healthcare and healthcare facilities, and the qualities of a healthcare worker.

Estimated time

3 hours

Rationale

Developmental stages have specific behaviors appropriate and “normal” for those particular periods in an individual’s life. Behavior is also affected by cultural and religious differences. Healthcare Workers work with patients who are of different ages and at different stages of development.

Objectives

Upon completion of this lesson, the student will be able to:

- Identify the stages of development
- Describe the behavior that characterizes each stage, and the individual differences of behavior due to culture, ethnicity, and religion

Engage

As a class, brainstorm the physical, emotional, and social developmental milestones of human beings. On a piece of newsprint, draw a timeline that begins with birth and ends with death. Write the students’ answers on the timeline. Responses may include first steps, first words, first day of school, puberty, first date, high school graduation, college, first job, marriage, having children, career promotions, and retirement. (DiscoveryEducation.com)

Key Points

- I. Human Development – From Infancy to Geriatrics
 - A. Development
 1. Generally refers to successive changes in the process of one’s natural growth
 2. Occurs through the maturation of physical and mental capacities and learning
 - B. Growth – Generally refers to changes in the structure and size of a living organism
 - C. Human growth and development are ongoing processes beginning at birth and ending at death.
 - D. Individuals have unique healthcare needs based on their level of development. Healthcare workers need to be familiar with each developmental stage in order to provide competent and high quality healthcare.
- II. Geriatrics
 - A. According to the U.S. Government on Aging:
 1. There are approximately 29 million people aged 65 or older (that’s 12% of the current population) in the U.S.
 2. By the year 2030, this number is expected to increase to 20%.

- B. The physical and mental health of the aged is a growing concern for the medical community.

III. Life Stages

A. Infancy

1. Physical changes – height and weight (born weighing between 5½ and 10 pounds—generally double weight by 9 months)
2. Muscular and neurological motions – progress from uncoordinated movements of the head and extremities to development of fine motor coordination
3. Teeth – generally born without teeth; usually develop them by the 1st year
4. Vision – poor at birth (capable of focusing on objects 8 to 12 inches from the face), but improves by 1 year to permit a longer range of visual recognition and hand-eye coordination
5. Language – the language of a newborn is the cry; by one month, an infant’s repertoire expands to include soft, throaty, and gurgling sounds.
6. Feeding – hungry at irregular intervals; eats every 2 to 3 hours
7. Social being – responds to human voice and touch

B. Early Childhood (preschool/kindergarten years)

1. One-year-old

- a. Physical change from plump baby to the leaner, more muscular body of toddler
- b. Begins to walk and talk
- c. Ability for passive language (increasing ability to understand language)
- d. Tentative sense of independence
- e. Determined explorer; constantly exploring by touching, holding climbing, and mouthing

2. Two-year-old

- a. Begins to communicate verbally; most can tell their own names and the names of common objects.
- b. Can usually speak in 3 to 4 word sentences and carry on brief conversations
- c. Famous for negative behavior
 - 1) temper tantrums (most often out of frustration)
 - 2) saying, “NO,” to everything
- d. Do not actively play with other children, rather enjoy playing side-by-side with children their age
- e. Great imitators

3. Three-year-old

- a. More coordinated than the two-year-old; climbs stairs with alternating feet and can stand briefly on one foot

- b. Vocabulary and pronunciation continue to expand
 - c. Emotionally, the three-year-old loves parents and wants to be just like them
- 4. Four-year-old
 - a. Sentences are more complex; speaks well enough for strangers to understand
 - b. Imagination is vivid; the line between what is real and imaginary is often indistinct
 - c. Develops fears (common fears include: fear of the dark, fear of animals, and fear of death)
- 5. Five-year-old
 - a. Can hop on one foot and skip
 - b. Can accurately copy figures such as a triangle
 - c. Continues to develop language skills
 - d. Many begin to read
 - e. Social with other children their age
- C. Late Childhood (preadolescence, 6-12 years)
 - 1. Physical development at a slow, but steady rate
 - 2. Both large and small muscles are well-developed
 - 3. Able to participate in physical activities that require complex motor skills and coordination
 - 4. Visual acuity has matured to its best
 - 5. At the stage to learn morals and values
 - 6. Progress from independent activities to group activities with members of the same sex
 - 7. Acceptance by peers is very important
 - 8. Parental approval and reassurance are still basic needs
- D. Adolescence (begins around 12 or 13, and goes to 19 or 20 years)
 - 1. A traumatic life stage for both children and any authority figures
 - 2. Puberty occurs – physical changes occur rapidly during the early years of this stage
 - 3. Muscle coordination does not occur as quickly as physical changes; can make the child clumsy and awkward
 - 4. The stage where individuals learn to be accountable and accept responsibility for their actions
 - 5. Extremely concerned with appearance (their appearance and others)
 - 6. Trying to establish self-identity
 - 7. Feelings of uncertainty, inadequacy, and insecurity may surface
 - 8. Confrontations with authority
- E. Young Adult (20-45 years)
 - 1. Physical development is complete, and motor coordination is at its peak
 - 2. Emotional maturation continues to develop

3. Have usually learned to accept responsibility for their actions, and to accept criticism
4. Usually knows how to profit from errors
5. Socially progressed from peer groups to associates with similar ambitions and desires (regardless of age)

F. Middle Adulthood (40-45 to 55 years)

1. Physical changes begin to occur (hair begins to thin and gray; wrinkles appear; muscles may lose tone and strength; hearing and vision may decrease)
2. Main concerns – children, health, job security, aging parents, and fear of aging
3. Love and acceptance still play a major role in the lives of these individuals

G. Late Adulthood – the fastest growing age bracket of society (55-60 and up)

1. Physical deterioration (brittle bones, dry and wrinkled skin, poor coordination)
2. Some memory problems
3. Coping with retirement and forms of entertainment
4. Chronically concerned with health
5. Concerned with finances
6. A significant number of the elderly become depressed; the suicide rate is high.
7. The needs of the elderly are the same as in other life stages – a feeling of acceptance, love, self-esteem, and financial security.

IV. Individual Differences

- A. Cultural/Subcultural differences – value systems, body language, proxemics
- B. Ethnic differences – skin tones, facial features, language
- C. Religious differences – Protestant, Catholic, Jewish, Buddhist, Agnostic, Muslim, etc.
- D. Physical differences – large/small, thin/fat, anomalies, disabilities
- E. Personalities – inherent predisposition to be outgoing, shy, sensitive, creative, etc

Activity

I. Complete the Life Stages and Cultural Diversity Project.

II. Complete the Human Development/Understanding the Patient Worksheet.

Assessment

Project Rubric

Writing Rubric

Oral Presentation Rubric

Note to teacher: Not all portions of this assignment need to be graded. The rubrics are provided in case you want to use them.

Materials

Paper doll activity

Human Development/Understanding the Patient Worksheet

Key for worksheet

Accommodations for Learning Differences

For enrichment the student will write a paragraph summarizing the physical development at each stage.

For enrichment the student will research Erik Erikson's Theory of Psychosocial Development and write a paper explaining each stage.

National and State Education Standards

National Health Science Standards

HLC01.01 Health Care Workers will know the academic subject matter required(in addition to state high school graduation requirements) for proficiency within their area. They will use this knowledge as needed in their role.

TEKS

130.202 (c)(1)(J) describe the stages of development related to the life span.

Texas College and Career Readiness Standards

English/Language Arts Standards

II Reading

B. Understand new vocabulary and concepts and use them accurately in reading, speaking and writing

III Speaking

A. Understand the elements of communication both in informal group discussions and formal presentations (e.g. accuracy, relevance, rhetorical features, and organization of information)

B. Develop effective speaking styles for both group and one-on-one situations

IV. Apply listening skills as an individual and as a member of a group in a variety of settings (e.g. lectures, discussions, conversations, team projects, presentations, interviews)

Life Stages and Cultural Diversity Project

Objective: Each student will gain an understanding of the developmental stages of the human, from infancy thru late adulthood, and be able to share their culture with the rest of the class by displaying their doll in the classroom.

Method: Each student will be assigned a developmental stage. You are to make a paper doll to resemble yourself at the developmental stage you are assigned. You need to identify several characteristics of that developmental stage and emphasize the physical, mental, social, and emotional categories.

Each student will also emphasize their own cultural back ground with the following information:

Ethnicity (race or nationality)

Country of Origin (where your grandparents were born)

Student's birth place (where you were born)

Family structure – nuclear family or extended family

Authoritative figure in the home – matriarchal or patriarchal

Spiritual background and special religious practices

Health beliefs of your grandparents.

Which of those health beliefs you still use and practice in your family

Significant beliefs related to death and burial

The project needs to be in the shape of a paper doll, approximately 8½ x11 or 11x17, and dressed for that age group. You can use pictures of yourself or a relative as examples in creating the paper doll. Use creativity and imagination to make your doll realistic. These will be displayed in the classroom. Research and ask questions about your family.

Assessment: You will need to hand in a typed report including the above information. One student will be chosen from each developmental stage listed below to present the written report and tell about their families' history. You will be given 3-5 minutes.

Development stages for Presentation:

Infancy

Childhood

Adolescence

Young Adulthood

Middle Adulthood

Late Adulthood

Name _____

Date _____

Study Guide for Human Needs/Understanding the Patient

1. Reference to changes in structure or size of a living organism (i.e. human) is called:

 2. According to studies done by our government, _____ percent of the population are aged 65 years or older.
 3. The life stage where puberty occurs is _____.
 4. In this age group, a significant number of people become depressed and there is a high suicide rate: _____
 5. Changes that occur over time in the process of one's natural growth are referred to as _____.
 6. Infants usually **double** their weight by what age? _____
 7. The life stage whereby visual acuity is at its best is during: _____.
 8. At what age should one expect children to have trouble distinguishing between what is imaginary and what is real? _____
 9. Physical development is complete by what life stage? _____
 10. At which life stage are people most concerned with their health? _____
-
11. List four individual differences that health care professionals should be aware of when taking care of patients:
 - 1) _____
 - 2) _____
 - 3) _____
 - 4) _____
 12. The age range for late childhood is from _____ to _____ years old.
 13. Newborn infants are able to see almost immediately after birth, but can only focus on objects within a range of _____
 14. At this age, a child loves his or her parents and wants to be *just* like them. _____

15. Motor coordination is at its peak during the _____ life stage.
16. Middle adulthood begins at what age? _____
17. How frequently should one expect newborns to be hungry? _____
18. Children are famous for temper tantrums at this age: _____
19. Children learn their morals and values by this life stage: _____
20. The age at which children commonly develop fears is : _____
21. "Identity crisis" might be used to describe this stage: _____
22. By the time a child is five, he or she should be capable of what kind of physical activity?

23. Children are often clumsy at this age due to muscle coordination not occurring as quickly as their body growth: _____
24. At what life stage will people associate with other individuals with similar life interests rather than peers just within their age bracket? _____
25. The main concerns of middle adulthood are:

26. Brittle bones and poor coordination describe this life stage:

MATCHING:

- A. infancy
- B. early childhood/presch. kindergarten
- C. late childhood (preadolescence)

- D. adolescence
- E. young adulthood
- F. middle adulthood
- G. late adulthood

- _____ 1. acceptance by peers is very important (passive language)
- _____ 2. confrontations with authority
- _____ 3. age 65 & older
- _____ 4. great imitator
- _____ 5. accurately copies abstract signs & drawings
- _____ 6 usually knows how to profit from errors
- _____ 7. from 12 to 20 years old
- _____ 8. begins to walk and talk
- _____ 9. climbs stairs with alternating feet
- _____ 10. generally begins to read
- _____ 11. speaks well enough for strangers to understand
- _____ 12. problem life stage for both parent & child

- _____ 13. hair begins to thin & gray
- _____ 14. learns to accept responsibility for actions
- _____ 15. fastest growing age bracket
- _____ 16. ability to understand language
- _____ 17. "NO" to everything!
- _____ 18. goes from plump baby to leaner toddler
- _____ 19. uncoordinated movements to fine motor coordination
- _____ 20. often feels insecure and inadequate
- _____ 21. very concerned with finances
- _____ 22. speaks in 3 & 4 word sentences
- _____ 23. enjoys being with other children, but does not actively play with them

Key: *Worksheet*

Human Needs/Understanding the Patient

1. growth
2. 12%
3. adolescence
4. late adulthood
5. development
6. 9 months
7. late childhood
8. 4-year-old
9. young adulthood
10. late adulthood
11. (any four of the following) cultural or subcultural differences: ethnic differences, religious differences, physical differences, personalities
12. 6-12 years
13. 8 to 12 inches of face
14. 3-year-old
15. young adulthood
16. 40 years
17. every 2 to 3 hours
18. 2-years-old
19. late childhood
20. 4-years-old
21. adolescence
22. hop on one foot, copy geometric figures, continues language skills, begin to read, socialize with children their own age
23. adolescence
24. young adulthood
25. children, health, job security, aging parents, fear of aging
26. late adulthood

MATCHING:

1. C

2. D

3. G

4. B

5. B

6. E

7. D

8. B

9. B

10. B

11. B

12. D

13. F

14. E

15. G

16. B

17. B

18. B

19. A

20. D

21. G

22. B

23. B