

THE ULTIMATE **CREDIT-BY-EXAM** STUDY GUIDE FOR:

Developmental Psychology

3rd Edition

05/31/2022

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Chapter 1: Introduction to Developmental Psychology (The Lifespan)

Overview

There are many reasons why it is important to study Developmental Psychology. Some reasons include seeking an understanding of patient needs and being self-reflective. These are just a couple of reasons of importance. Also, learning about Developmental Psychology will help you, the student, learn how to become a better-informed professional in your field of choice. Studying developmental psychology will better understand many clients or patients' psychological, emotional, and physical needs. It is also important that one learns about the importance of being self-reflective, which will help you understand your personal life stages and what will motivate you and help you understand your clients or patients in your field.

In this first chapter, we will be discussing the basic concepts of each of the stages of the lifespan. Hopefully, learning these concepts in chronological order will help you grasp these concepts and build a starting foundation for the different psychological schools of thought. It's important to remember the information presented to you in this chapter. The information you gain from this chapter will be presented in other parts of this study guide.

The concepts and terms that are commonly asked in the exam will be in bold text, *italicized*, and marked with the following symbol:

Learning Objectives:

At the end of the chapter, you should be able to:

- Describe the domains of development.
- Understand the various contexts in which development occurs.
- Explain the major theories of developmental psychology and the people associated with these theories.

A. The Basics

Previously, psychologists believed that psychological development stopped after adolescence ended. After more research and studies about psychological development, it has been found that thought development occurs from birth through to death. The *lifespan* is the processes that occur between birth and death. The maximum Lifespan is the longest period of time a species can live. When it comes to the human lifespan, their maximum lifespan is nearly 120 years. When thinking about lifespan, it is thought of more as the average lifespan, which can be defined as the average age reached by a given population member. The average lifespan is not the same between males and females and can be quite different, depending on cultures and geographic locations. Life expectancy is known as the number of years a

person is expected to live. The chart below shows how the human lifespan can be organized into different categories.

Terms to be familiar with:

Lifespan - The process between birth and death.

Life Expectancy - The number of years a person is expected to live.

Longevity - A long duration of an individual lifespan.

Maximum Lifespan - The longest period of time a member of a species has been known to live.

Average Lifespan - The statistical average age reached by members of a given population.

| Stage | Age Range |
|------------------|--------------------------|
| Prenatal | Conception through Birth |
| Infancy | Birth – 2 years old |
| Early Childhood | 2 – 5 years old |
| Middle Childhood | 6 – 11 years old |
| Adolescence | 12 – 18 years old |
| Early Adulthood | 19 – 34 years old |
| Middle Adulthood | 35 – 64 years old |
| Late Adulthood | 64 years of age and up |

One thing not included in the table is death and dying. Still, it is a part of the lifespan, and each case of death and dying is different for each person. Some die from old age, and some die from diseases such as cancer which can occur at any age. The ages can vary at each stage, but this table can be used as a general guideline as it helps provide a guideline to approximate ages and the stage of the lifespan.

B. Domains of Development

Here are three different domains of developmental psychology. It is easier to study developmental psychology when the three main perspectives are broken down into components. Let's look at these three components:

Biosocial Domain

Think about the word biosocial. Let's break it down. Part of the study focuses on the brain and bodily changes (Bio). Combine this with the societal influences (social), and you will come up with the word biosocial. Let's look at a brief example. Let's say that a researcher is looking at nutrition's effect on physiological development. This dilemma combines socioeconomic status and societal influences, and biological concepts are mixed into the combination. Therefore, if a child is poor and has very little access to healthy foods such as fruits and vegetables, the child may not grow properly and may have a plethora of health issues in the future. Within the biosocial domain, we also look at two types of development:

Potential Development: Defined as the maximum a child could grow and develop in ideal conditions

Actual Development: Defined as how much a child actually grows and develops.

Cognitive Domain

This domain deals with some of the areas of cognition. When researchers study the cognitive domain, some questions come to mind. One question is about how children acquire language and questioning if perception is influenced during development.

Listed below are some of the areas of cognition that are studied.

- Thought
- Perception
- Language
- Other mental activities

Psychosocial Domain

Let's break down this word to understand better what psychosocial domain is. "Psych" focuses on studying personality, emotions, and relationships. These are studied in combination with societal influences, including "social," hence developing the term psychosocial. Some of the questions that a researcher of the psychosocial domain may ask are how individuals can interact with society throughout their lifespan. Areas in the psychosocial domain studied are:

- Personality
- Emotions
- Relationships
- Societal Influences

C. Perspectives and Issues in Developmental Psychology

When studying developmental psychology, the following must be kept in mind and be considered.

Change is Multidimensional: Think about the mechanics of a vehicle. Multiple parts work together to make a vehicle work. The same thing applies to psychological development. A human's psychological development can change simultaneously with other physical, emotional, and psychological changes. When these changes occur, some changes may affect another, decrease the change in one or increase the change in another.

Change Occurs in Many Contexts: One of the main contexts is culture. It is important for any professional in the healthcare field, whether nursing or the mental health field with psychologists, to be sensitive to cultures. Professionals in many fields may encounter all sorts of people from different cultures and geographical locations. Being sensitive according to culture will provide patients with a positive experience.

Developmental Psychology is NOT just about Psychology: While this class aims to study psychological development, it's important to remember that it is not 100% about psychology. Development can occur biologically, sociologically, and psychologically. Those aspects can be affected by education, a person's economic status, religion, and culture.

Change Occurs Throughout the Lifespan: There are several stages of life. Each one of these stages has its own set of milestones that a human will experience. Plasticity refers to the brain's ability to learn, grow and develop as a person matures and ages. When development changes throughout our lives, the pathways in the brain will find different ways to connect. This is especially important during abnormal development (discussed in chapter 3), where damage might occur in some parts of the brain, and other pathways must be found within the brain. Common examples of plasticity are learning a second or third language, learning an instrument, and creating art.

D. Development in Context

Developmental change can occur in many contexts. Below is a list of some important contexts that researchers and others need to keep in mind when attempting to understand developmental psychology.

Historical Context: This context looks at the time periods of when a person is developing. For example, growing up in the 1940s is different from growing up today. Goals between the '40s and today are a lot different. There are many more opportunities for women today than there were in the 1940s. **Age cohort** refers to individuals born during the same era, culture, location, and similar growth and developmental experiences.

Socioeconomic Context: When one thinks about the term socioeconomic status, it's important to understand that it does not have to do with just the financial aspects, but it also covers a person's education level, income, geographic residence, as well as their employment. One aspect, such as education level, may affect someone's job status. For example, someone with a doctorate may find themselves working as a surgeon in a hospital, living a healthier lifestyle, and having a more luxurious residence.

Cultural and Ethnic Contexts: What exactly do cultures include? Culture includes **values, attitudes, customs, and beliefs** passed down through society over a long period of time. One thing that has close ties to culture is ethnicity. There are usually shared beliefs, ancestry, and religion shared between culture and ethnicity. People from different cultures can usually share cultures with others while maintaining their personal culture.

Individuals and Social Context: This context is known for looking at society and how it affects individuals. It also looks at how individuals affect society. Two factors come into play when it comes to what affects development. The first is **internal factors**, and the other is **external factors**. Internal factors include things such as genetics, physical development, and thought. External factors include developmental context, society, and events that happen during a specific time during development.

Nature vs. Nurture

Nature is defined as the influence of our genetic makeup in development.

Nurture is defined as the role our social environment plays in development.

Many theorists believe that we are who we are strictly due to our genetics (nature), while others believe that our surroundings shape us. This is why internal and external factors are often studied within the

nature vs. nurture debate. Psychologists and sociologists have acknowledged how important socialization is within development.

Terms to be familiar with:

Ethnicity is tied to culture and usually includes shared belief systems, ancestry, and religion.

Stereotypes generalize a belief about a specific group, which can be positive or negative.

Prejudice is when a feeling towards a person is based on their affiliation with a specific group.

Discrimination is when an action is made that denies the rights of a person based on their group.

E. Approaches to Development

When thinking about different approaches to development, three main approaches come to mind.

Continuous Development: This approach is typically used by behavioral theorists. They will examine how change depends on the environment a person is in and if it is a slow and constant change. Theorists believe that change happens when there are rewards or punishments.

Overlapping Stages: This approach is typically used by psychosocial theorists. There are distinct changes between continuous and discrete development, and they are based on stages. These are based on several factors, including environmental, genetic, and inherited factors.

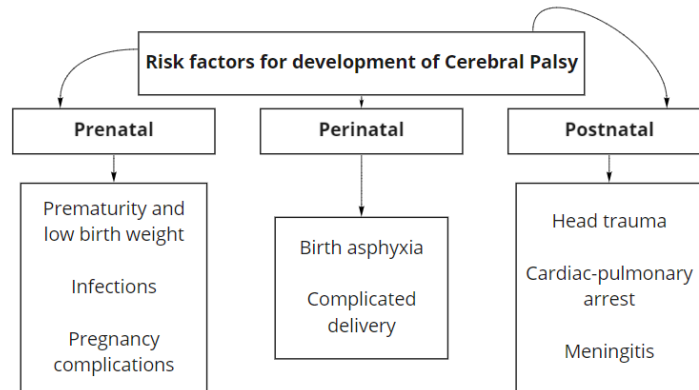
Discrete Stage: This approach is typically used by psychoanalytic and cognitive theorists. This approach looks at how change can be dependent on a person’s age and if it is the result of genetic forces that may be affected by the environment. Theorists also say that it is only at particular times that change can occur.

Sensitive periods: There are *overlapping periods* of development where a person is sensitive to a type of stimuli or interaction.

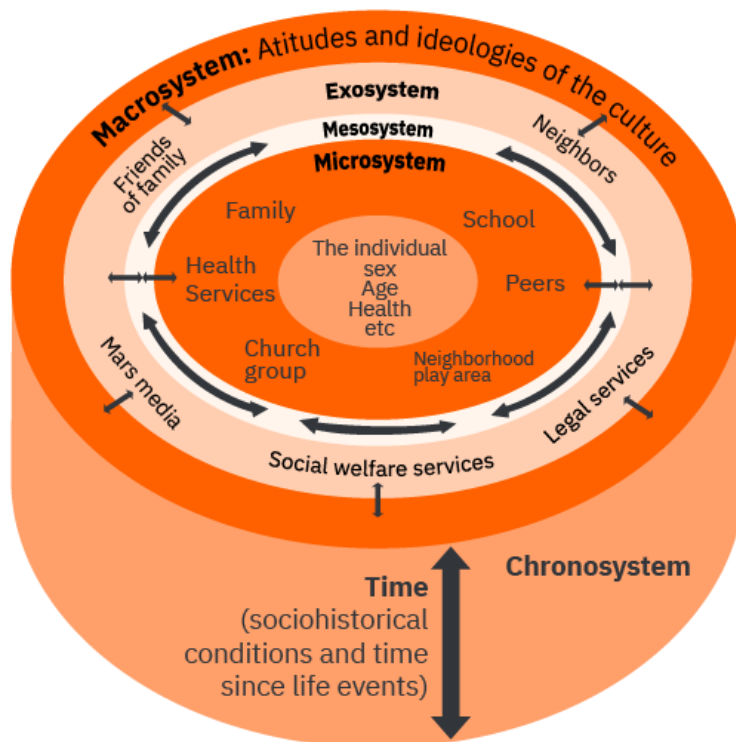
There are five categories of sensitive periods: Language, Order, Sensory Skills, Motor Skills, and Social skills

| Stages of Early Development – Birth to Age 6 | | | | | | | | | | | | |
|--|-----------------------------------|---|-----|---|-----|---|-----|---|-----|---|-----|---|
| Age | 0 | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 | 4 | 4.5 | 5 | 5.5 | 6 |
| Movement | [Orange bar from 0 to 6] | | | | | | | | | | | |
| Math Concepts | [Blue bar from 0 to 6] | | | | | | | | | | | |
| Emotional Control | [Purple bar from 0 to 3] | | | | | | | | | | | |
| Order | [Green bar from 0 to 3.5] | | | | | | | | | | | |
| Interest in Objects | [Yellow bar from 0 to 3.5] | | | | | | | | | | | |
| Vocabulary | [Pink bar from 0 to 6] | | | | | | | | | | | |
| Hands-on Sensations | [Light Green bar from 2.5 to 6] | | | | | | | | | | | |
| Letter shapes/sounds | [Light Purple bar from 2.5 to 5] | | | | | | | | | | | |
| Music | [Light Blue bar from 3 to 6] | | | | | | | | | | | |
| Writing | [Reddish-brown bar from 4.5 to 6] | | | | | | | | | | | |
| Reading | [Light Green bar from 5.5 to 6] | | | | | | | | | | | |

Within these stages, risk factors can differ. Below is an example of risk factors for cerebral palsy. You do not need to study this for the exam but rather understand how to apply this knowledge to questions that could arise within these stages in other developmental issues.



F. Using the Ecological Approach



This model represents how the ecological approach works. Urie Bronfenbrenner was the individual who proposed this approach. There are concrete circles surrounding a person located in the middle (dark purple circle). Each of the other circles are influences that an individual may be subjected to. The closer the circle, the higher the influence has on the individual.

Now, let's look at the layers that are represented in the model above. The first layer is called the **microsystem**. This layer contains influences such as families, schools, and/or peers. Individualized systems are connected by the **mesosystem**. The connecting layers do not contain influences. The next to the last layer is the **ecosystem**. These contain distant influences that do not have as much effect as the

closer layers. The last layer is called the **macrosystem**. This outer layer contains the overall ideas of a culture where people live and thrive. It is essential to keep in mind that each of these layers will overlap between each of the different systems.

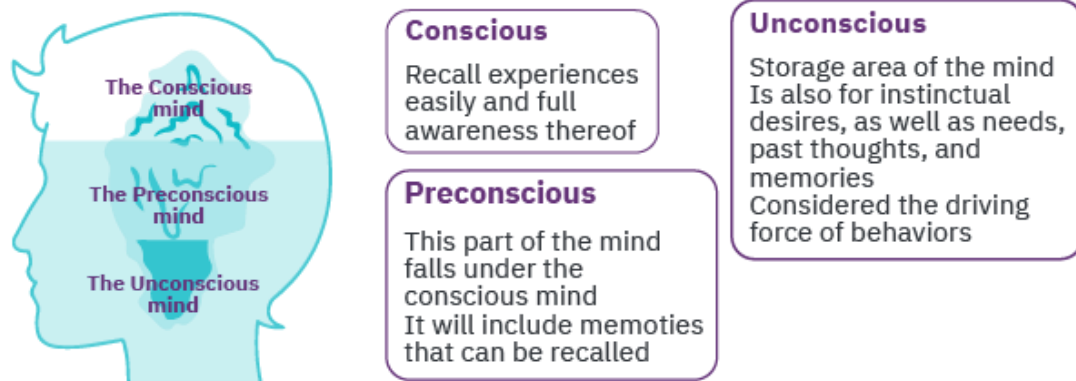
G. Theories of Developmental Psychology

In the introduction to this chapter, it was mentioned that you would be learning about the schools of thought. There are 4 theories that talk about the school of thought. These are all attached to developmental psychology and regular psychology.

The four schools of thought are:

- **Psychoanalytic Theory:** Sigmund Freud, a medical doctor, and founder of psychoanalysis, is one of the most prominent individuals of this theory. Freud created three levels that divided the mind.
 - *The Conscious Mind:* Freud said that this was the small part of the human mind that includes active experiences that can be easily recalled.
 - *The Preconscious Mind:* This part of the mind includes memories that can be recalled. It is also known to be a part of the conscious mind. Memories can be recalled even though they are not occurring in the present thoughts.
 - *The Unconscious Mind:* This part of the mind serves as a storage area for memories and thoughts from the past. While these thoughts may not currently be recalled, they can cause a person's behavior.

Freud's Three Levels of mind



- Sigmund Freud's beliefs included the belief that memories that were stored in the unconscious mind were not accessible due to the memory being repressed. **Repression** is just one of the defense mechanisms that Sigmund Freud proposed. He believed that the mind had the ability to protect itself from various thoughts such as bad memories, thoughts, and ideas.

Below is the table showing the different **defense mechanisms**:

| Defense Mechanism | Definition | Example |
|--------------------|--|--|
| Repression | Blocks threatening memories from the conscious mind | Children who lived in homes where the abuse took place may not remember the abuse that occurred |
| Displacement | The projection of aggressive feelings onto objects other than the source of feeling | A child becomes upset about a new sibling coming into the house, tears a doll's head off, or cuts its hair. |
| Rationalization | The modification of malfunction with socially adequate reasons instead of the authentic reason | An individual refusing to drink instead of informing people that they much rather not drink. This gives an alternating excuse to avoid harassment. |
| Reaction Formation | Changing feelings of mental feelings to the opposite in their "real life" | A person who not sure of their religious beliefs may join a certain religion and attempt to convert their peers |
| Regression | The state of reverting to previous behavior | A child who sucked his or thumb as a baby may revert to these behaviors after a new baby arrives |
| Denial | The refusal of confessing that something upsetting exists | A parent is told their child is a bully, but the parent refuses to believe that their child is such |

Another Freud development was the ability to organize personalities within the conscious framework. Freud also believed that there were three parts to an individual's personality. Let's explore these three parts.

The ID: Considered to be the first component in personality, this is present at birth and is known to be an unconscious component. This part controls biological **cravings** for things such as food, water, sleep, and sexual encounters. The ID is not authentic, as there is no concept of existence, opportunity, or occasion.

The Superego: The superego is also considered morality. Freud says that the superego causes people to feel guilty about certain things. He also says that the superego and ego disagree with each other. One demands that the individual does the right thing. One of the issues with this is that a person may eventually feel guilty about desiring bodily pleasures. This is something that the ID craves while the superego contains itself in the preconscious area of the human mind.

The Ego: The ego is considered the referee between sensual thoughts and desires the ID contains, and the overactive morality of the superego. The ego looks at realism and helps plan thoughts, remains the rational thought, and serves as a mediator of desires. Mediation helps individuals discover socially suitable ways to gratify the ID. Remember that the ego does move through all 3 minds; the conscious, preconscious, and unconscious minds.

H. Freud's Theory of Psychosexual Development

Sigmund Freud believed that a person's personality develops due to changes in the **libido** which is related to the sexual energy a person has. The libido is present at birth and is known to be completed by the age of five. Freud also believed that when individuals did not move throughout the stages of their

lifespan, they would be immovable or fixated. The following table shows stages of psychosexual development.

| Stage | Age | Characteristics | Fixation |
|----------------------|----------------------------|---|---|
| Oral Stage | Birth – 1 Year of Age | An infant’s pleasure comes from actions of the mouth such as suckling, chewing, and biting. | If weaning does not occur properly, a fixation could occur. Examples such as nail-biting, overeating, and gum-chewing are possible. |
| Anal Stage | 1 year to 3 years of age | Gratification results from anal actions, excretion, and repetitive actions. | Not being properly toilet trained, and even a lack of a normal routine can lead to anal fixation. |
| Phallic Stage | 3 years to 6 years of age | This is when boys and girls will discover the genital area, and may lead to the envy of the opposite sex | Lack of education and parent involvement may lead to improper sexual feelings toward the opposite gender. |
| Latency Stage | 6 years to 11 years of age | There are no significant developmental occurrences. The only noticeable change is that girls play more with girls and boys with boys. | If children do not have proper exposure to both males and females during this age range, it may lead to inadequate knowledge of the opposite sex. |
| Genital Stage | 12 years of age and up | Experiencing sex will occur, and both boys and girls will seek relationships. | If any previous fixations occur, it will affect the rest of the lifespan. |

Freud believed that during the Phallic Stage, parental obsessions might come about. He also believed that children could become attracted to their parents of the opposite sex sexually.

- *Oedipus Complex*: Male children having sexual attraction to the female parent
- *Electra Complex*: Female children having sexual attraction to the male parent.

While efforts have been made to prevent children from developing a sexual attraction to the parent of the opposite sex, it still does occur. Freud referred to a Greek play, *Oedipus Rex*, which Sophocles wrote. In this play, Oedipus’s parents are informed that he will eventually kill his own father and eventually marry his mother after his birth. Despite all efforts to prevent this from happening, not much can be done, and Oedipus carries out the murder of his father and marries his mother. Sigmund Freud decided to use this prophecy as a base for his theory.

The resolution of these complexes will vary between boys and girls. Male children will experience **castration anxiety**. During this time, boys believe that if their desires for their mother are discovered, their father will get angry and retaliate against them by castrating them. **Penis envy** is what females experience. Female children eventually realize that they do not have a penis. This may cause the female to experience anxiety, but eventually, female children will shift their desires from their fathers to socially acceptable men. Once this occurs, this complex will be resolved.

I. Evaluating Freud’s Theories

Freud came to accept the notions of the Oedipus and Electra complex notions, doing so without a degree or background in Greek literature or mythology. Something to keep in mind is that Greek plays- for the

most part - did come from Greek literature, mythology, and Greek religion. Freud's theories and writings can certainly be misunderstood in today's culture. It's important to realize that Freud was from a very different time, where the views on sexuality and sexual attraction were different from today. When studying Freud today, it's good to look at his views. It's important to view them from a cultural and historical lens, which will help those looking back at his works understand the theories he developed and the intricacies of the complexes.

Many people have attempted to expand and accept Freud's theories. His theories have also been highly criticized and even rejected. It was his work on **psychosexual development** that has been rejected the most. Some of the reasons it was rejected were due to religious differences, lack of adequate evidence, and flawed data. Although it has received a lot of criticism, his work is still influential in providing a foundation for future work in personality development, adolescent development, and attachment theory.

Carl Jung and Karen Horney are two individuals who built their research on Freud's work. Jung and Horney acknowledged the difference between parents and children, but hostility contributed to parenteral hostility and intimidation. It was Carl Jung who had recognized the belief in the collective unconscious. Jung also believed that the collective unconscious existed at birth and embodied the collective experience of prior generations.

J. Erik Erikson's Stages of Psychosocial Development

Another contributor to the psychoanalytical branch of psychology was a man named Erik Erikson. He believed that development followed a series of conflicts and needed to be resolved at the end of each stage of the lifespan. Erikson's focus was not on sexuality but rather on the emotions that an individual would go through. Let's look at the life stages according to Erik Erikson.

| Age | Stage/Conflict | Characteristics | Outcome |
|------------------------------------|------------------------------|--|---|
| Birth through 1 year of age | Trust vs. Mistrust | Babies will learn to trust their caregivers to help give them what they need. | Resolved Conflict: I will learn to hope and trust. Unresolved Conflict: Will learn mistrust. |
| 2 – 3 years | Autonomy vs. Shame and Doubt | Babies will learn to trust their caregivers to help give them what they need. | Resolved Conflict: Learns to be self-sufficient. Unresolved Conflict: Learn to doubt themselves. |
| 4 – 5 years | Initiative vs. Guilt | This is where children learn about accepting responsibility for their actions. | Resolved conflict: Learns purpose. Unresolved Conflict: Gains feelings of guilt. |
| 6 – 11 years | Industry vs. Inferiority | Children learn about accomplishing tasks and become productive members of their families and even society. | Resolved Conflict: Learns competence Unresolved Conflict: Feels inferior |
| 12 – 18 years | Identity vs. Role Confusion | Individuals in this stage will start exploring their identity and inner self | Resolved Conflict: Learns fidelity to specific identity Unresolved Conflict: Feeling of a role conflict. |

| | | | |
|-------------------------|-----------------------------|--|---|
| Young Adult | Intimacy vs. Isolation | Individuals learn about relationships and becoming intimate. | Resolved Conflict: Learns to love Unresolved Conflict: Individual may become a loner |
| Middle Adulthood | Generativity vs. Stagnation | Attempt to create contributions, leaving them for the future and generations | Resolved Conflict: Learn wisdom Unresolved Conflict: Depression develops about living a life that seems meaningless. |
| Late Adulthood | Integrity vs. Despair | Adults will look at their lives to see if it has been fulfilling | Resolved Conflict: Learns wisdom Unresolved Conflict: Depression may develop. |

K. Behavioral Theory

Some behaviorists will focus on an individual's observable behaviors rather than the mental processes that occur. Behaviorist John B. Watson was influential in the field of psychology. He assumed that for psychology to be considered an actual science, research and experiments need to be conducted since experiences cannot be executed on intangible objects. The focus needs to be moved to observable concrete actions. When this occurred, the subfield of psychology was born, and its name was behaviorism.

L. Classical Conditioning

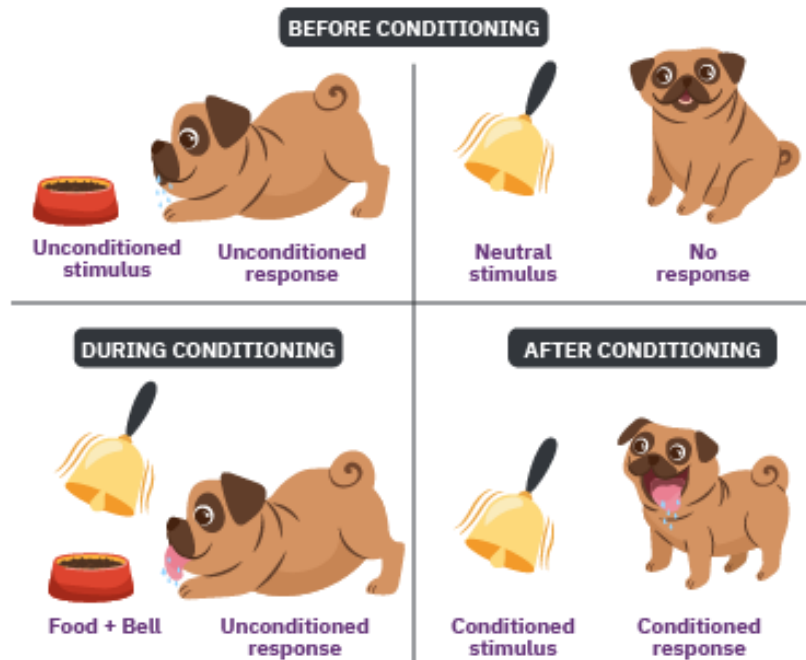
Classical conditioning is one of the facets of behaviorism. This was proposed by a physiologist named Ivan Pavlov. His main research focused on digestion, specifically the digestion of dogs. His research was based on the assumptions that when dogs are hungry or are exposed to food, they will salivate. Pavlov's research even showed that the dogs he was studying would salivate before they were even offered food. The dogs would eventually associate Pavlov with food and would salivate when they saw Pavlov.

Let's look at some of the components of classical conditioning:

- Unconditioned Stimulus (UCS): Food
- Unconditioned Response (UCR): Salivation
- Conditioned Stimulus (CS): Bell
- Conditioned Response (CR): Salivation

Remember that:

- UCR: Usually is a natural reflex
- Pavlov's Bell: Originally a neutral stimulus (Had no significance)
- UCR becomes a CR when pairing the UCR with a new stimulus



Another thing that is important to know about classical conditioning is that it pairs new reflexes with previously neutral stimuli. Classical conditioning has proven to be useful, but it is limited because only impulsive actions can be used. Reflective actions are not an ideal way to teach, but if the responses can be naturally trained, then the reactions can undergo extinction.

Other examples include the Little Albert Experiment. A psychologist performed this by the name of John Watson. In his experiment, he studied a 9-month-old boy who was exposed to a white rat, rabbit, dog, and monkey masks (with and without hair). The 9-month-old was subjected to cotton wool and other items that the boy had never seen before. At first, Little Albert was not frightened of any of the items he was subjected to. Before Little Albert turned 1 year of age, John Watson began to condition him. Watson placed a white rat near Little Albert. Since Little Albert had had positive reactions to the white rat, he reached out to it. Watson made a loud noise when his hand was close, thus scaring Little Albert. Since the loud noise and the white rat were now combined, Little Albert would cry when the white rat was brought into the room or near Little Albert.

- UCS: Loud Noise
- UCR: Fear/Crying
- CS: White Rat (Previously a neutral stimulus)
- CR: Fear/Crying

After this experiment was concluded, Watson concluded that Little Albert showed *stimulus generalization* to all-white furry objects, and not just the white rat. Little Albert became afraid of white cotton, fake Santa beards, white rabbits, and a sealskin coat.

M. Operant Conditioning

B.F. Skinner is known for operant conditioning. This is another aspect of behaviorism. He developed a theory in response to what he thought was failing classical conditioning. He thought that learning could happen when there was **selective reinforcement**. He believed in reinforcing some behaviors and not reinforcing other behaviors.

- *Reinforcement*: Actions that increase the probability of behaviors that continually occur.
- *Punishment*: Actions that decrease the likelihood of behaviors that continually occur.
- *Positive*: Introduces something if the stimulus is positive.
- *Negative*: Removes something if the stimulus is unpleasant.

Let's look at an example. Imagine you are trying to get your teenager to clean his or her room and have attempted this for the past week. You want to reinforce behavior positively, so you present something pleasant and remove something unpleasant like a chore. After a week has passed, and their room still has not been cleaned, then the teen could be punished by adding something unpleasant such as another chore or taking away something like their cell phone.

For punishments to be successful, the punishment must occur after the negative behavior occurs. When the punishment does not occur after the negative behavior, it will not correspond with the negative behavior; hence there will never be an association between bad behavior and punishment.

N. Reinforcement Schedule

With behavior reinforcement, it is important to remember that frequency does matter, just as much as what has and hasn't been done. The following table shows the five schedules of reinforcement.

| Schedule | Definition | Pros | Cons |
|-------------------|---|--|-----------------------|
| Continuous | Behaviors that are rewarded every time the behavior is performed | Good for initial learning | Not easy to maintain |
| Fixed Ratio | Rewards are given for behaviors that are performed multiple times | Rapid response of desired behavior | Not easy to maintain |
| Fixed Interval | Rewards are given for good behavior after a certain time (minutes) | | Very low success rate |
| Variable Ratio | Behaviors that are desired will happen a number of times before rewards are given | Fairly easy to maintain. Produces a high response rate | |
| Variable Interval | Desired behaviors will be rewarded after a timeframe that is random has passed | Fairly easy to maintain. Produces a low and steady response rate | |

O. Social Learning Theory

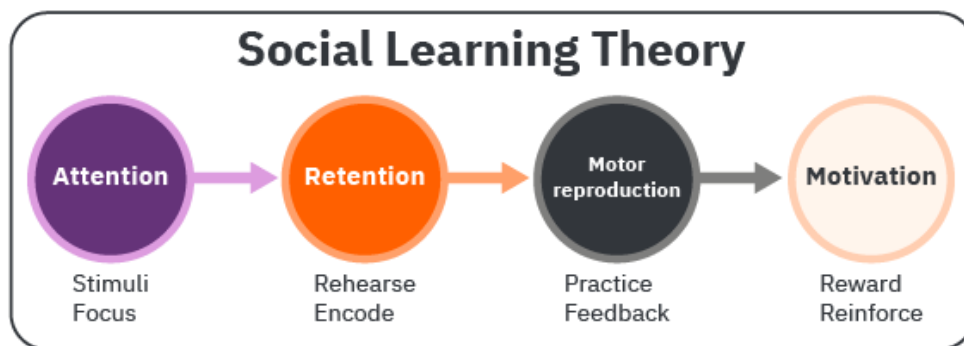
Albert Bandura is the individual responsible for proposing social learning theory. He believed that there was a difference between behavior and learning. Bandura also assumed that people could learn from studying or observing others; that reinforcement was not always needed for learning to happen. We have talked about two different studies that psychologists have conducted.

Bandura conducted a study as well, called the Bobo Doll Study. This experiment included an inflatable doll that had weights on the bottom. This doll was also the common toy that children used during this study.



A group of children was chosen for this study, and they were subjected to a video of other children beating up the Bobo doll. In this video, some of the children were rewarded for beating up the Bobo doll, and some of the children in the video were punished for their aggression toward the Bobo doll. Finally, the children who had watched the video could play with their own Bobo doll, and the results were interesting. Some of the children decided to imitate the violent behavior they saw in the video. Only some of the children who watched the video copied the behavior. The children who saw the children in the video get punished were reluctant to perform the behavior because they didn't want to get punished.

Albert Bandura concluded that this experiment did show that children can learn by observing others. There are four components to Bandura's social cognitive theory. Attention, Retention, Motivation, and Reproduction.



P. Cognitive Theory

Jean Piaget is yet another influential individual in the field of psychology. He created the cognitive stages of development.

Stages of Cognitive Development:

| Stage | Age | Description |
|--------------------------------|-----------------------|--|
| Sensorimotor | Birth through 2 years | 1. Children will learn by using their senses 2. Some children will repeat their actions multiple times. |
| Preoperational | 2 through 7 years | 1. Children learn life operations 2. Begin to understand symbolic functions |
| Concrete Operational | 7 through 11 years | 1. Children engage in complex thoughts and behaviors 2. Concrete = Tangible 3. Begin to understand cause and effect |
| Formal Operational | 11 years and beyond | 1. Begin to learn logic and have abstract thoughts 2. Have the ability to have hypothetical thoughts about the future |
| *Post-Formal Operational Stage | Adults | 1. This stage was added later after the original theory was developed 2. Adults who completed college or a graduate education |

*This stage was added later after the initial development of the stages of cognitive development.

Just like other theorists, Piaget's stages were also criticized. Here are some of the issues that people had with these developmental stages.

- It underestimated the abilities of preschool-aged children
- It overestimated individuals within the formal operational stage
- Some believed that children would not move easily through the stages
- Some believed that cultural influences were not considered in the development of this stage;

Another cognitive theorist was a man by the name of Lev Vygotsky. He focused on the social aspect of cognitive development. He believed that language was essential and was needed for learning. He created the zone of proximal development, or ZPD, for short. He believed that this idea was the best way for someone to learn how to balance previous knowledge with knowledge that had not yet been acquired. He was a large proponent of scaffolding. **Scaffolding** is a teaching method that enables a child to solve a problem, where children are given cues and support

An example of this may be a child having the ability to read a book independently if it is an easy read. More complex books may be more difficult for a child to read. The Zone of Proximal Development for a child is between two extremes; books that a child can read with the help of an adult.

Q. Information Processing and Memory

Some cognitive theories look at the human brain as a computer filled with encoded information. The information is conformed into a format that can easily be stored and/or kept appropriately, then easily retrieved from a person's memory.

When it comes to categories of memory, there are three main categories: Sensory, Short-Term, and Long-Term.

Let's look at these three categories.

| | |
|-------------------|---|
| Sensory Memory | <ol style="list-style-type: none">1. It usually lasts a few seconds2. Will hold information from the senses, such as hearing, taste, touch, etc.3. If not rehearsed or repeated, it will leave this area. |
| Short-Term Memory | <ol style="list-style-type: none">1. Has a limited capacity of only 5 to 9 items2. The brain can organize thoughts into groups for more storage. |
| Long-Term Memory | <ol style="list-style-type: none">1. It has an unlimited capacity and may last for an unlimited time.2. Information must go through the rehearsal stage3. The information can be retrieved with retrieval strategies. |

Retrieval Strategies:

- *Rehearsal*: Repetitive actions until something is remembered
- *Elaboration*: starts with basic information and grows into more complex ideas and thoughts
- *Association*: Being able to connect new and old information together
- *Retrieval Cues*: Physical, verbal, visual, and/or auditory cues to aid in the process of remembering
- *Working Memory*: Information is held that is currently being used

R. The Humanistic Theory

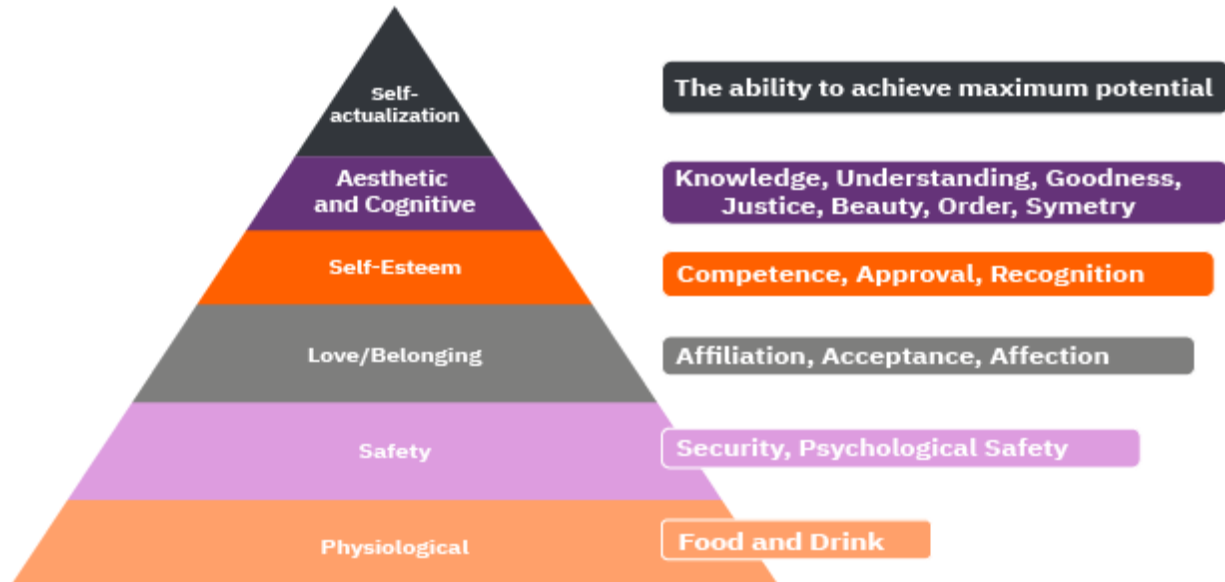
This theory was put together by psychologist Abraham Maslow. He thought that development would happen because of intrinsic motivation and extrinsic motivation. What are these?

- ***Intrinsic Motivation***: This is how an individual may feel when they have completed a task, thus giving them the motivation to complete another action. An example would be exercising, thus making their body feel good, now giving them the reason to keep exercising and motivating others to do the same.
- ***Extrinsic Motivation***: This is an external reward presented to individuals to finish an action. External rewards have the purpose of giving motivation. An example would be a person continuing to do a job that they find boring but doing it so that they can continue to receive a paycheck.



Maslow contributed significantly to humanistic psychology, giving a notion of the Hierarchy of Needs. Below is the pyramid that Maslow created.

Maslow ' s Hierarchy of Needs



Maslow also created 3 different categories of needs. Deficiency, Basic and Psychological needs

Deficiency Needs: This is when individuals have needs that are missing, and there is an immediate response that is prompted. Some of the needs included are the need for psychological needs, safety needs, the need to belong, and the need for self-esteem.

Basic Needs: These are the needs that are needed in order to move on to the next stage of the hierarchy.

Psychological Needs: These needs include the need to belong, the need for self-esteem, and self-actualization. Self-actualization is the need to nurture the self to achieve maximum potential.



Another well-known psychologist, Carl Rogers, had the belief that people had the capacity to change themselves, as long as they knew someone believed in them. Rogers suggested the concept of **unconditional positive regard**. This means that regardless of an individual's actions, people will still approve them for committing actions that are not appropriate.

Chapter 1: Review Questions

- 1. In the field of psychology, which domain do perception and language primarily fall under?**
 - a. Biosocial Domain
 - b. Psychosocial Domain
 - c. Cognitive Domain
 - d. Humanistic Domain
- 2. Which of the following factors is typically used to determine socioeconomic status?**
 - a. Age
 - b. Income
 - c. Genetics
 - d. Personality
- 3. When a child refuses to let his or her father tie their shoes, regardless of the fact that the child has been attempting to tie their shoes for 15 minutes and has been unsuccessful. According to Erikson's stages, which one is the child currently in?**
 - a. Integrity vs. Despair
 - b. Industry vs. Inferiority
 - c. Autonomy vs. Shame or Doubt
 - d. Generativity vs. Stagnation
- 4. When someone flushes the toilet, the shower water turns hot. This caused the person to jump backward. Every time the person in the shower even heard the toilet flush, they would automatically jump back even before the temperature changed. What unconditional stimulus is this?**
 - a. Jumping back
 - b. The "flush" noise
 - c. Hot water
 - d. Cold water
- 5. What kind of conditioning and reinforcement is it when a father gives his child a credit card at the end of their first year of college as a reward for making good grades?**
 - a. Classical/Negative
 - b. Operant/Positive
 - c. Operant/Negative
 - d. Classical/Positive
- 6. Jane's mother has two crackers that are the same size. Her mother breaks one of the two crackers into four different pieces. Jane wants the most crackers, so she grabs all four pieces, even though they are all the same size. This action illustrates Jean Piaget's concept of**
 - a. Egocentrism
 - b. Concrete Operations
 - c. Conservatism
 - d. Humility



- 7. Which development theorist proposed the idea of unconditional positive regard?**
- a. Erik Erikson
 - b. Sigmund Freud
 - c. Abraham Maslow
 - d. Carl Rogers
- 8. Which type of memory has unlimited storage and duration?**
- a. Working Memory
 - b. Sensory Memory
 - c. Long-Term Memory
 - d. Short-Term Memory
- 9. Who proposed the idea of social learning by using the Bobo Doll?**
- a. Jean Piaget
 - b. Albert Bandura
 - c. B.F. Skinner
 - d. Abraham Maslow
- 10. Which of the following stages allows adults to solve multiple, complex problems all at once?**
- a. Post-Formal Stage
 - b. Concrete Operational Stage
 - c. Preoperational Stage
 - d. Formal Operational Stage



Chapter 2: Development of Brain and Nervous System

Overview

This short chapter focuses on how we process the information we receive and adjust our brain to different functions.

Learning Objectives

At the end of this chapter, you should be able to:

- Describe and name parts of the nervous system and their functions
- Understand how neurons communicate (Understand how the CNS communicates)
- Identify the different types of neurotransmitters
- Identify parts of the brain and how they work together

A. The Background

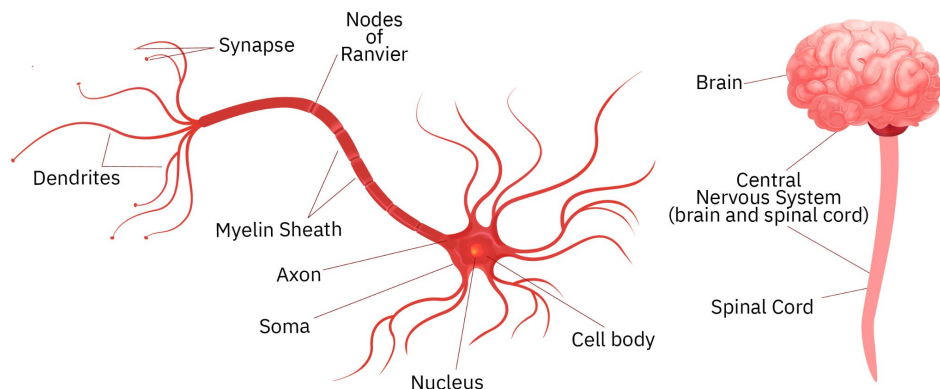
A German scientist named Ernst Weber started studies in the 1800s to try to understand the sense of touch. He discovered how different parts of our bodies are more sensitive than others through his studies. This pathed the way into the studies of the nervous system.

Development begins as simple tissue forms into a tube and stretches along the head towards the tail bone, becoming the spinal cord and brain. By the time an embryo has developed for 25 days, it has a distinct spinal cord and hindbrain, midbrain, and forebrain.

The body's communication system is known as the nervous system, which contains all the body's nerve cells. It is divided into the Central nervous system (CNS) and the peripheral nervous system.

B. The Central nervous system

The CNS is made of the brain and spinal cord. A person's spine and skull protect this part of the nervous system. The communication occurs by electrical impulses being sent through **neurons**. These neurons are connected via **synapses**.



Neurons use **dendrites** to send information to one another. When the information travels to the **soma** (cell body), it builds up an electrical signal called an **action potential**. It then shoots away, down the axon, and takes it to another neuron. **Neurotransmitters** are released. A layer of fatty cells called the **myelin sheath** helps the signal travel quickly.

Within the **synapse**, there is a small space known as the **synaptic gap**.

Neurotransmitters include:

dopamine - attention, learning, voluntary movement, motivation, and pleasure

serotonin - sleep, hunger, and mood

glutamate - learning and memory

GABA - inhibits brain function; anxiety, motor control, linked to Huntington's Disease

endorphins - inhibits pain.

Intelligence, learning, and memory all need to be understood in terms of these impulses. As we grow and learn, messages travel from one neuron to another over and over, creating connections, or pathways, in the brain.

C. Parts of the Brain

The brain is composed of several parts with complex functions.

The oldest parts of the brain are the brainstem, cerebellum, reticular formation, and thalamus. These control the basic functions of a person's body. The parts that control your emotions and motivations are the amygdala, hippocampus, hypothalamus, and pituitary gland. The last part of the limbic system is the four lobes: the frontal, occipital, temporal, and parietal lobes.

Brainstem

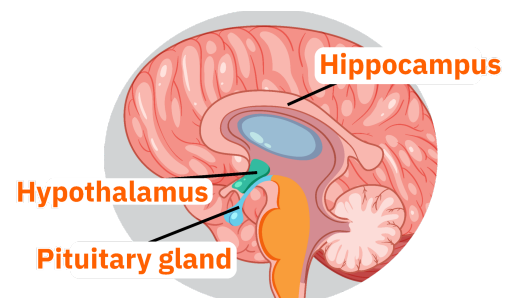
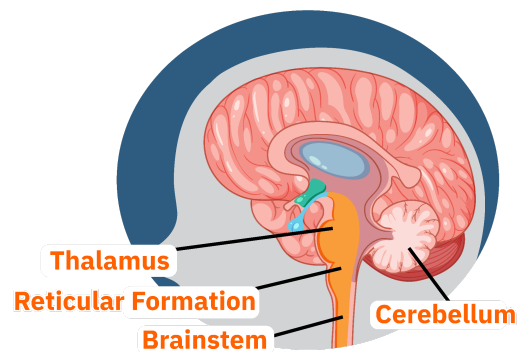
It is found at the bottom of the brain and the top of the spine and sends signals to keep processes running without the conscious influence of a person. It controls the basic functions of our bodies, such as breathing, heart beating, and digestion.

Cerebellum

Found behind the brainstem where it helps a person remember things as well as assist in coordination when doing activities such as walking.

Reticular Formation

From your spinal cord through the brainstem and thalamus, the nerve cells that make up this part help our brain filter



different stimuli and send important signals to the rest of the brain. It is active during arousal, meals, and sleep.

Thalamus

It is attached to a person's brainstem, where it receives information from senses and sends them to the different parts of the brain.

Amygdala

Fear and anger are controlled by this part.

Hippocampus

The Hippocampus is in charge of processing our long-term memory, where we store information.

Hypothalamus

Hunger, sex drive, thirst, and body temperature are controlled by the hypothalamus

Pituitary Gland

This gland controls the release of hormones in the body.

Frontal Lobe

Assists in speech, coordination, prediction, planning, judgment, analytical reasoning, cognition, memory, and language skills.

Occipital Lobe

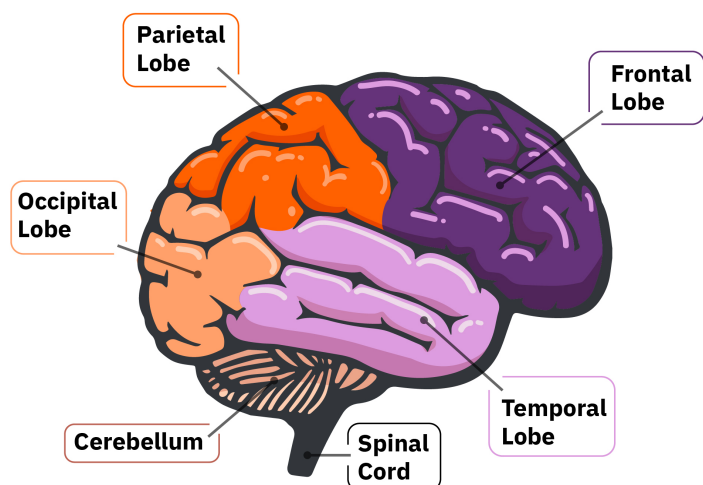
This lobe is our visual cortex, which helps us process the information we see.

Parietal Lobe

Pain, temperature, touch, and pressure are all processed here.

Temporal Lobe

Smell and hearing are processed within this lobe. *{The olfactory system is the sensory system used for smelling (olfaction).}*



Chapter 2: Review Questions

- 1. The term central nervous system refers to the:**
 - Autonomic and peripheral nervous systems
 - Brain, spinal cord, and cranial nerves
 - Brain and cranial nerves
 - Spinal cord and spinal nerves
 - Brain and spinal cord
- 2. The peripheral nervous system consists of:**
 - Spinal nerves only
 - The brain only
 - Cranial nerves only
 - The brain and spinal cord
 - The spinal and cranial nerves
- 3. The Schwann cells form a myelin sheath around the**
 - Dendrites
 - Cell body
 - Nucleus
 - Axon
 - Nodes of Ranvier
- 4. The neuron processes that normally receive incoming stimuli are called:**
 - Axons
 - Dendrites
 - Neurolemmas
 - Schwann cells
 - Satellite cells
- 5. Which of the following best describes the waxy-appearing material called myelin?**
 - An outer membrane on a neuroglial cell
 - A lipid-protein (lipoprotein) cell membrane on the outside of axons
 - A mass of white lipid material that surrounds the cell body of a neuron
 - A mass of white lipid material that insulates the axon of a neuron
 - A mass of white lipid material that surrounds the dendrites of a neuron
- 6. The olfactory area is found within the**
 - Occipital lobe
 - Temporal lobe
 - Frontal lobe
 - Parietal lobe
 - Pyramidal tract



- 7. Sally has a brain injury; she knows what she wants to say but can't vocalize the words. The part of her brain that deals with the ability to speak is the**
- Longitudinal fissure
 - Gyrus
 - Central sulcus
 - Broca's area
 - Primary motor control
- 8. The midbrain, pons, and medulla oblongata are housed in the:**
- Diencephalon
 - Hypothalamus
 - Brain stem
 - Pineal gland
 - Cerebellum
- 9. The vital centers for the control of visceral activities such as heart rate, breathing, blood pressure, swallowing, and vomiting are located in the:**
- Longitudinal fissure
 - Gyrus
 - Central sulcus
 - Broca's area
 - Primary motor control
- 10. Preparing the body for a "fight-or-flight" response during threatening situations is the role of the:**
- Sympathetic nervous system
 - Cerebrum
 - Parasympathetic nervous system
 - Somatic nervous system
 - Afferent nervous system

Chapter 3: Genetics, Prenatal Development, and Childbirth

Overview

Now that you have learned a bit about the history and the research and ethical portions of developmental psychology, it's now time to explore genetics, prenatal development, and childbirth. This is the beginning of the developmental cycle. There will be information pertaining to genetic diseases that may affect development and the development of the egg and its development into a fetus. Childbirth is later discussed in this chapter.

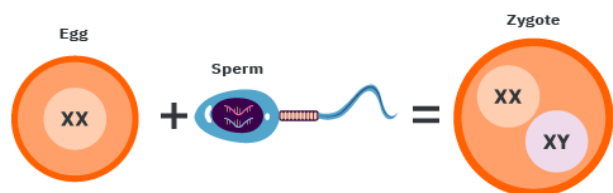
Learning Objectives

At the end of this chapter, you should be able to:

- Understand basic concepts of genetics and the genetic code
- Explain genetic and chromosomal abnormalities
- Describe the different stages of prenatal development
- Define and understand what teratogens are
- Explain the steps of the birthing process

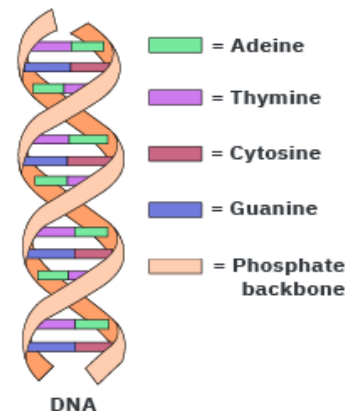
A. Concepts of Genetics

Gametes are where we start with development. They are also considered sex cells. Females have egg gametes, and males have sperm gametes. When the male and female gametes come together, this material creates a **zygote**. Zygotes divide from one cell into two cells, two cells into 4 cells, etc.



All cells contain chromosomes, and chromosomes are located in the nucleus. Body cells, called **somatic cells**, have 23 pairs of chromosomes, totaling 46 chromosomes in the human body. Half of the 46 chromosomes come from the mother, and the other half come from the father.

Information regarding genetics is carried by DNA or **deoxyribonucleic acid**. All DNA cells contain a sugar called deoxyribose, a **group** of phosphates, and four different bases. The first base is **adenine**; then there is **thymine**, **guanine**, and **cytosine**. These four bases are put into pairs. Adenine is paired up with thymine, while guanine is paired with cytosine.



Hereditary information has a basic unit called a **gene**. Genes are what chromosomes are made up of. They are the individual segments of chromosomes. Individuals are known to have around 100,000 genes. All genes are different and have specific DNA, and carry genetic codes from the parent to the child. The 23rd chromosome is called the **sex chromosome**. Females have two X chromosomes (XX), while males have one X chromosome and one Y chromosome.

Two types of components make up a person’s genetic makeup. One is called the **genotype**, and the other is called the **phenotype**.

The **genotype** makes up the genetic makeup, which includes 2 types of genes.

- **Dominant Genes:** Traits/Genes that are always expressed.
- **Recessive Genes:** Traits/genes that are not expressed.

The **phenotype** component is considered the observable trait that can be seen. This includes eye color, hair color, and a person's height. Some genes are present in the genotype that are not observable. These unexpressed genes are called **carriers**. The unexpressed genes can be passed on to other children. Genes that interact with one another are called the **gene-gene interaction**, and they can also interact with their environment, called the **gene-environment interaction**.

Let’s look at the gene-gene interactions:

Gene-Gene Interaction

- **Additive:** This shows the contribution of multiple genes
 - *For example:* A tall woman has a child with a short man, and the child is of medium height.
- **Dominant-Recessive:** Genes known to be non-additive, meaning they are one or another.
 - *For example:* A person with a dominant gene for brown eyes can be a carrier for blue eyes. Brown eyes are typically shown since they are the dominant gene.
- **Incomplete Dominance:** This phenotype is not entirely controlled by the genotype.
 - *For example:* Some red flowers and white flowers may produce pink flowers with a variety of pink hues.
- **X-Linked Genes:** Genes that are on the X chromosome can be dominant or recessive and happen to be more common in men.
 - *For example:* Baldness in men is carried on the X chromosome.
- **Polygenic traits:** Traits influenced by more than one gene.
 - *For example:* Height, skin color

| | |
|-----------------------------|---|
| Additive | Shows contributions of multiple genes |
| Dominant-Recessive | Genes are not additive and are a “one or the other” situation. |
| Incomplete Dominance | Phenotype is not completely controlled by genotype. |
| X-Linked Genes | Genes on the X chromosomes can be dominant or recessive and are more common in men. |
| Polygenic traits | A trait influenced by more than one gene such as height or skin color. |

Gene-Environment Interactions

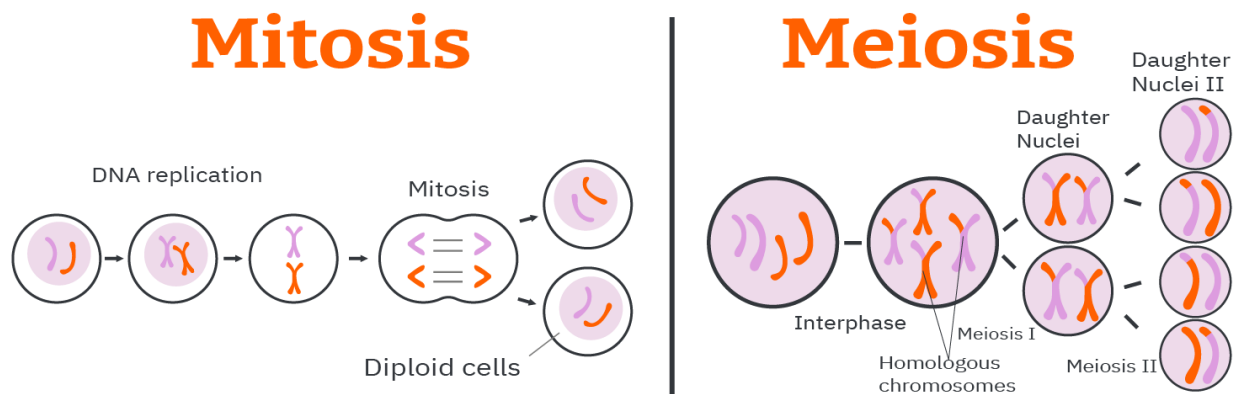
A person's environment can have unpredictable effects on genetics. Studying identical twins especially, but other types of twins helps researchers understand how particular environments can impact genetics. Identical twins or monozygotic twins result from the fertilization of a single egg by a single sperm, with the fertilized egg then splitting into two. Identical twins do have identical genes.

Fraternal twins do not have identical genes and are no different from brothers and sisters born during different pregnancies. The assumption that monozygotic twins are the same as dizygotic twins is not always the case. Studying twins who were separated at birth is usually the easiest method to test these assumptions. Studying adopted children by looking at the traits of the adoptive parents and not biological parents may indicate if there is a particular trait that is genetically based or environmentally based. (Here is nature vs. nurture again).

Mitosis and Meiosis

Mitosis is the process whereby our **body replaces or creates new cells**. When a cell (called a parent cell) divides into two genetically identical daughter cells, it is called mitosis. Any mistake occurring during this process can lead to problems as the genetic code is altered, leading to either too many or too few chromosomes. Problems include development of organic diseases, cancer, and cell death.

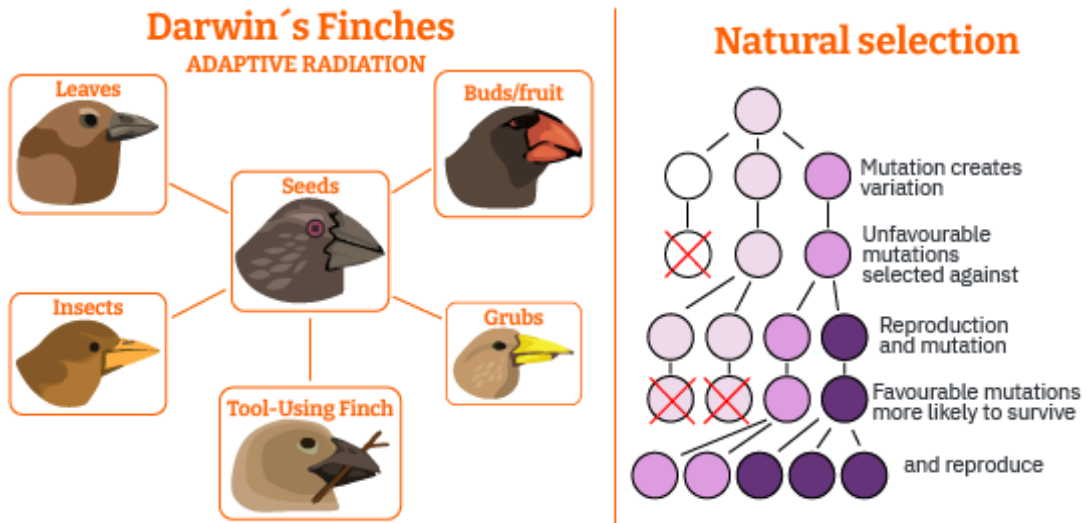
Meiosis is the process where **sex cells are produced** and thus the cells only contain half the number of chromosomes. These cells then go through a process called **crossing over** or **recombination** where they pair up during sexual reproduction. The new combination of genes can occur in a way that is different from both parent cells, also known as **genetic variation**. Mistakes during meiosis can occur, where problems can arise such as cat-cry syndrome (where a part of chromosome 5 is affected), or Down Syndrome where an extra chromosome is inherited.



Natural Selection

Charles Darwin proposed the theory of natural selection. Natural selection is known for its influence in deciding which genes are expressed at a given time. **Natural selection** says that when organisms have

the highest ability to survive and pass genes on to the next generation, it is when they have adapted strongly to an environment. Charles Darwin created a study with Galapago finches when he wanted to study natural selection. Darwin observed different finches on different individualized islands. The different finches slightly varied from one another. Some had short beaks, while others had long ones. After he observed the finches for a while, he concluded that the beak size and the beak shape varied depending on the type of food available on the island. Although the finch stemmed from its common ancestor, it had adapted to its environment. It developed into a new species that allowed them to reproduce and survive in their new environment or original environment.



Nature vs. Nurture

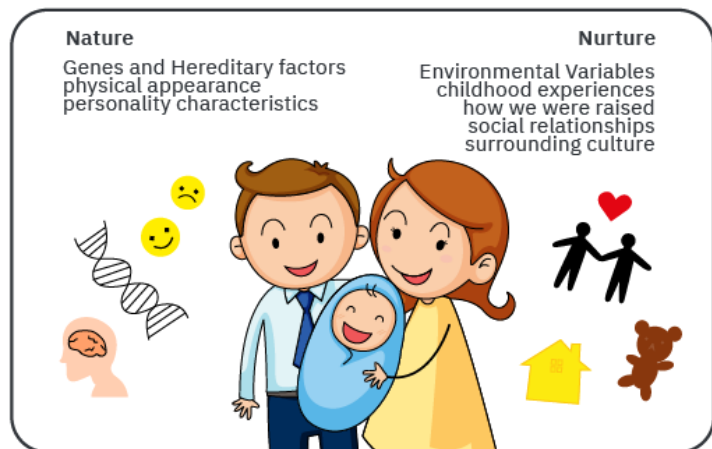
The nature versus nurture debate has occurred throughout many sociologist and psychologist circles for ages.

Nature is the influence of our *genetic makeup* on self-development.

Nurture is the role that our *social environment* plays in self-development.

Some theorists believe that individuals become humans as a result of nurture; Other theorists believe that we are who we are because of our genetics. Genetics are known for their important role in human behavior. One of the most studied aspects of sociology is the effect of society on human behavior.

A person's personality is shaped by how we are raised but also by our traits we might've inherited from our forefathers. Having your father's patience may have stemmed from "being born with it" or it might've



been cultivated purely by watching him handle stressful situations with patience and understanding your whole life. The traits that we inherit from our parents may also play a role in figuring out how we approach personal relationships. If your father tends to be easily offended and unwilling to listen, you are most likely more sensitive to hurtful remarks and might not feel comfortable making them yourself. When we imagine the development of specific diseases in humans such as diabetes, we know this can be due to genetics as well as environmental factors. When we imagine the development of specific diseases in humans such as diabetes, we know this can be due to genetics as well as environmental factors. Cancer is a disease that can also be caused by both genetics and environmental factors. The cause of the cancer may be from the DNA, or from chronic inflammation of the cells.

A few typical examples of questions or statements that highlight the nature vs nurture debate:

Is psychopathy due to nature or nurture? She was nicknamed ‘Sunny’ due to her happy nature.

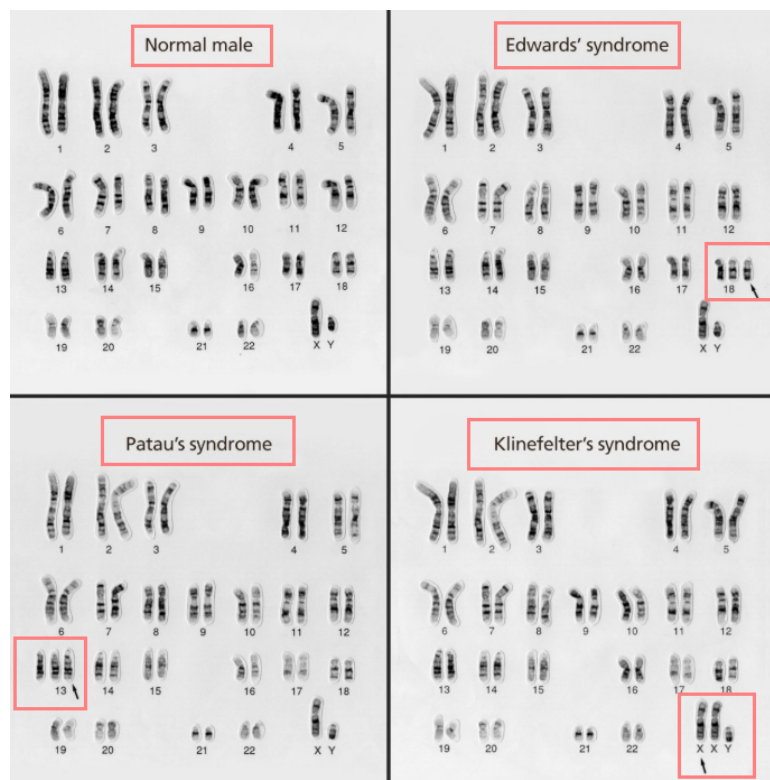
Are entrepreneurs characteristically born or bred? Discussion of acquiring languages - Humans are born as blank slates (to copy and learn sounds/languages environmentally) or humans are born with a natural LAD-language acquisition device, (the innate ability to acquire language).

B. Genetic and Chromosomal Abnormalities

It is proven that a person having too many chromosomes or fewer chromosomes can lead to many types of **syndromes**. Before we start looking at the genetic and chromosomal abnormalities, let’s define syndromes. They are a cluster of symptoms that usually occur together. There are numerous genetic diseases.

Below are a few that are more predominant or well known.

Down Syndrome: Is also known as **Trisomy 21**. A child who is born with Down Syndrome has 1 extra copy of chromosome 21. So instead of having the 2 that most individuals have, they are born with 3 chromosome 21s. There can be a lot of accompanying diseases and medical problems that come with having this syndrome. Although there are some problems that may accompany Down Syndrome, most individuals who have it will live well into their adulthood. Individuals with Down Syndrome have distinct facial features. They have round faces, thick tongues, and sometimes slanted eyes. Some have developmental retardation as well. Although the degree of mental retardation varies, many individuals who have Down Syndrome can live on their own and do quite well.



Phenylketonuria: This abnormality is also referred to as PKU and refers to the abnormal digestion of amino acids and phenylalanine. Phenylalanine, a necessary amino acid, is found in many foods we eat. This abnormality is a recessive gene. This means that the child's parents are possible carriers who are unaware of the gene. One of the ways to reduce the symptoms of this abnormality is to be on a specific diet with restrictions.

Huntington's Disease: Huntington's is a dangerous and potentially fatal neuromuscular degenerative disease. This disease, which is a dominant one, usually develops in someone's mid-thirties.

Kleinfelter's Syndrome: This is a sex-linked chromosomal abnormality. This syndrome is caused by an individual having an extra X chromosome (XXY). It is males who are typically affected by this and usually are rendered infertile, which causes a mild degree of mental retardation. It has been said that this syndrome is difficult to diagnose and is often misdiagnosed.

Fragile X Syndrome: This syndrome is where the X chromosome has the ability to break, and the pieces may fall apart. This is not a sex-linked abnormality, and the severity of the syndrome depends on how much of the X chromosome is missing. Some of the symptoms of Fragile X include having a larger head than normal, larger ears than normal, and mental retardation.

Turner's Syndrome: Turner's is more frequently found in women and occurs when a woman only has one X chromosome. Those who have Turner's will typically have learning disabilities such as ADD/ADHD. People with Turner's are infertile. When there are secondary characteristics that develop, and it is rare, some will develop a webbed neck.

Other Sex-Linked Abnormalities: Many sex-linked abnormalities happen to be linked with having an extra sex chromosome. There is an increased risk of medical and mental problems that will occur. This occurs when there is an additional sex chromosome is added.

With the advances in modern medicine, doctors and blood tests can detect many genetic abnormalities. The modernization of medicine can also potentially trace to carriers of certain abnormalities. When tests return positive for genetic diseases, a genetics counselor is usually called in, specifically for pregnant women and their spouses. During conception, the age a mother is when she does conceive is also a contributing factor to genetic problems. The risk of genetic abnormalities increases when women get pregnant at an older age.

C. Prenatal Development

Now that we have discussed some genetics, let's move onto stages of prenatal development. There are three stages to prenatal development.

- **Germinal Stage:** This stage begins at **conception** and occurs during the first 14 days. This is where the zygote will travel down the fallopian tube and implant itself on the uterine wall. During this stage the **zygote's** cells will start to divide. This process is known as **cleavage**.
 - Conception does not occur until two weeks after fertilization, thus this period is the second to fourth week of pregnancy. At this stage the baby is referred to as a **zygote**. After the zygote divides into enough cells and implants into the uterus, it will be known as a **blastocyst**.

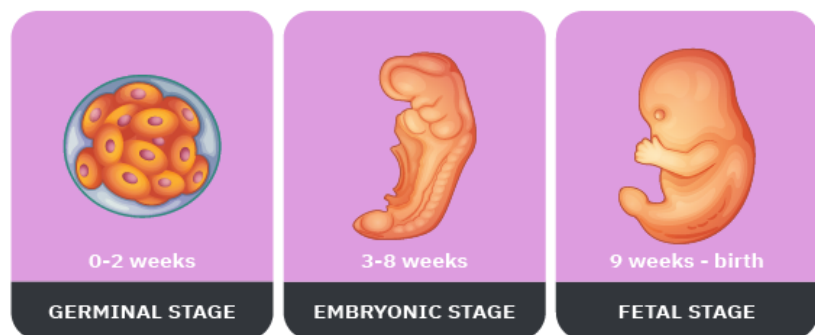


- **Embryonic Stage:** This happens during the 3rd and 8th weeks of pregnancy or gestation. When the placenta develops, the head begins to form and take shape. The cardiovascular system, which was underdeveloped, begins to function.
 - **Cephalocaudal & Proximodistal Stage:** These are stages part of the embryonic stage where **germ layers** will develop, allowing specific organs to develop in the body. Three tissue layers develop during this stage:
 - **Ectoderm:** Outer layer
 - **Mesoderm:** Middle layers
 - **Endoderm:** Inner layers

The three layers will continue developing into organs, where now the **embryo** is becoming a **fetus**, this is known as **embryogenesis**.

Fetal membranes begin to form, including the chorion and amnion. The umbilical cord also begins to form during this stage.

Fetal Stage: This is the last stage before a mother gives birth. This stage starts at 9 weeks and goes all the way through the time of the birth. There is a distinguished humanoid appearance during this stage, and the fetus begins to move around in the woman's belly. The organs in the fetus begin to function typically by the end of the 7th month. Around 24 weeks, the fetus's chance of survival outside the womb increases and is considered **viable**.



D. Principles of Growth and Development

For this exam, there are four principles of growth and development to be familiar with:

Cephalocaudal Principle

As discussed in the previous section, this is the “Head to toe” development - This principle describes the physical development of infants from birth to early childhood as well as the directional development of functional motor skills. *This principle supports the idea that growth starts from the head and moves down to the feet.*

Orthogenetic Principle

Also known as Werner's orthogenetic theory. It supports the theory that development is directional. It states that Psychological development is similar to biological development in the sense that it is

continuous and goes from **simple to complex**. When we refer to simple to complex development, understanding how cells develop and become specialized or how we go from learning to hold a toy to playing an instrument.

Principles of Association of Maturation and Learning

Based on three core aspects: physical **growth, development, maturation**.

As humans biologically develop, we mature. Biological refers to physical changes. Cognitive changes take place during biological development as the brain grows, our cognitive abilities also grow. A baby cannot talk from birth as their brain and skills have not developed to this extent to perform these functions.

Proximodistal Principle

It supports the notion that development is directional. In this principle we focus on the growth from infancy until early childhood as well as functional motor skills, just as we did in the cephalocaudal principle. *This principle states that our development starts near the spine and then expands outwards.*

E. Teratogens

What exactly are teratogens? They are substances such as food, alcohol, and drugs that may contribute to or cause congenital disabilities. Not only do teratogens contribute to or cause birth defects, there can also be environmental triggers that may cause issues such as a mother not eating right. The next section is a selective sample of the more serious teratogens and the diseases they cause.

F. Diseases

Rubella: This is a form of measles that became the first recognized teratogen. If a mother has rubella when she is pregnant with her child, there is a possibility that the child may be born with cardiac and brain damage and be deaf and/or blind as well.

HIV: Around for quite a while, HIV unfortunately still does not have a preventative vaccine available. This disease destroys a person's immune system, making the individual more susceptible to diseases. Transmitting HIV from the mother to a child can sometimes be avoided if the mother catches the HIV in time.

G. Medicinal Drugs

- There are a variety of drugs that are dangerous for a fetus to be subjected to. Not only are a lot of over-the-counter meds dangerous, but a lot of prescription drugs are also dangerous.
- While some may not believe that over-the-counter drugs are not dangerous, they can cause birth defects. Medications such as antacids, aspirins, and especially diet pills are detrimental to a fetus.



- Doctors recommend that mothers stop taking any non-vital medications during their pregnancy to avoid any dangers to the baby.

H. Psychoactive Drugs

- Alcohol, cigarettes, heroin, LSD, marijuana, methadone, and cocaine are just some of the drugs in this category that can hinder the growth of a mother's fetus.
- A lot of people do not know that the fetus does have the ability to become addicted to drugs and alcohol, and there is the possibility that the baby will go through withdrawals after being born.
- o Doctors say that consuming more than 3 alcoholic drinks a day may lead to FAS (Fetal Alcohol Syndrome). This is one of the leading causes of mental retardation in infants. This is completely avoidable if the mother avoids drugs and alcohol. Some children who develop FAS will have learning disabilities, anxiety generally or socially, and slowed growth.

I. Low Birth Weight (LBW)

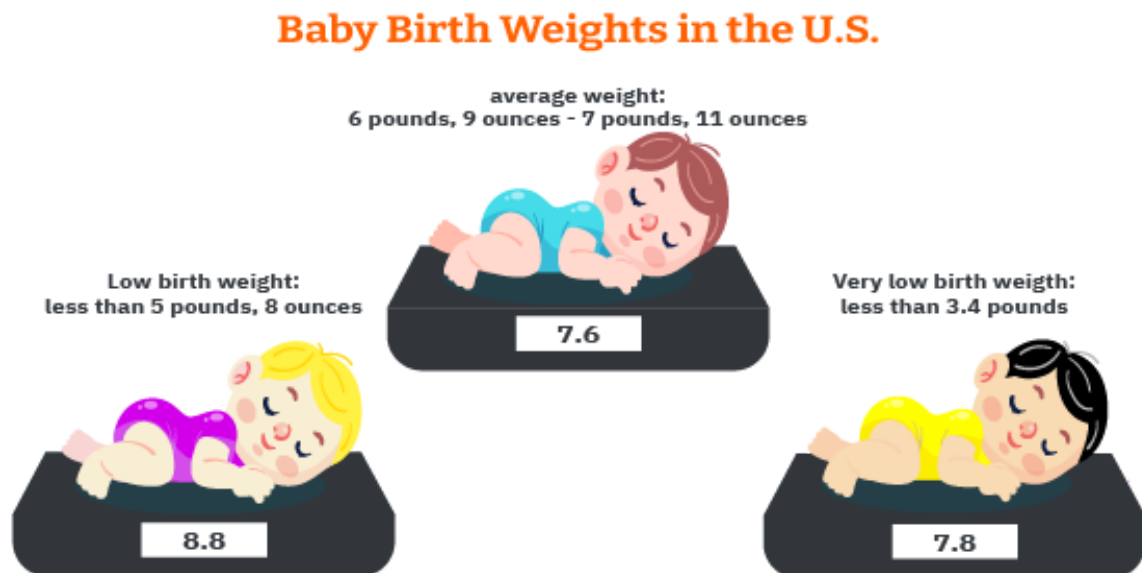
The World Health Organization, or WHO defines low birth weight as an infant weighing less than 5 and a half pounds at birth. Some of the causes of LBW are premature birth and drug use during pregnancy. Also, children with low birth weight are susceptible to infections more easily than most and develop anoxia (an absence or deficiency of oxygen reaching the tissues). Normal weight at term delivery is 2500–4200 g (5 pounds 8 ounces – 9 pounds 4 ounces).

There are 3 categories of low birth weight.

1-Low birth weight (LBW): weighs less than 5 lbs 5 oz (2500 grams).

2-Very low birth weight (VLBW): weighs less than 3 lb 9 oz (1500 grams).

Extremely low birth weight (ELBW): weighs less than 2 lb 3 oz (1000 grams).



J. Childbirth and Bonding

All pregnancies and childbirth are going to be different. There are various ways that a mother can prepare, go through, and recover from labor and delivery. Below is a table about types of delivery and secondary procedures associated with pregnancy and delivery.

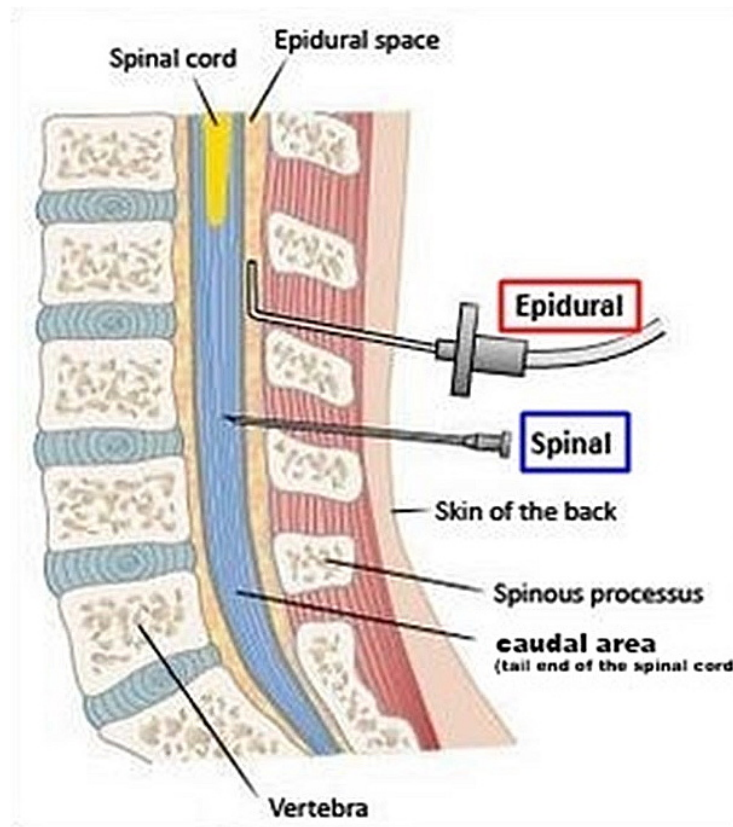
| Types of Childbirth (Summarized) | | |
|---|---|---|
| Method of Delivery | Definitions/Reasoning | Secondary Procedures |
| 1. Natural Birth | Definition of Natural Birth - vaginal childbirth without routine medical interventions, particularly anesthesia. | Episiotomy A surgical incision made in the area of skin between the vagina and the anus (perineum). The incision enlarges the vaginal opening to allow the baby's head to pass through more easily and to prevent tearing of the mother's skin tearing. |
| <ul style="list-style-type: none"> i. Induction ii. Forceps Delivery iii. Vacuum Extraction iv. VBAC v. Waterbirth | <p>i. Induction - Medication is used to prompt the uterus to contract during pregnancy before labor begins on its own for a vaginal birth. Inducing labor may be recommended for various reasons, primarily when the mother or baby's health is at risk.</p> <p>ii. Forceps Delivery - Forceps look like two large spoons; the doctor inserts them into the vagina and around the baby's head. Once in place, the doctor uses them to deliver the baby's head gently. The rest of the baby is delivered normally.</p> <p>iii. Vacuum Extraction - A small suction cup is placed on the baby's head. A vacuum is created using a pump, and the baby is pulled down the birth canal; the mother's contractions assist the delivery.</p> <p>iv. VBAC (Vaginal Birth After Cesarean) - this is possible for many women depending on if they meet certain criteria.</p> <p>v. Waterbirth - At least part of your labor, delivery, or both happen while you're in a birth pool filled with warm water. The water can help to support your weight, making it easier to move around and feel more in control during labor.</p> | <p>Anniotomy "Breaking the Bag of Water" Is the artificial rupture of the amniotic sac (which contains the fluid surrounding the baby.) This procedure can be done before or during labor.</p> <p>Doula/Midwife Doulas and Midwives have different training and responsibilities. Doulas offer nonmedical techniques such as breathing, massage, and changing body positions. A midwife is a trained medical professional (woman or man) that has the knowledge/skills to safely deliver a baby.</p> <p>Lamaze Method The Lamaze method uses special breathing patterns and other natural relaxation techniques for dealing with pain. The method is a common practice that helps parents prepare for the birth.</p> |
| 2. Cesarean Section | Definition - a surgical procedure used to deliver a baby through incisions in the abdomen and uterus. | The anesthesiologist will discuss the type of anesthesia to be used. There are 3 main types, all used for different reasons. |
| <ul style="list-style-type: none"> i. Elective ii. Unplanned Emergency | i. Elective - This delivery is chosen by the mother and planned/scheduled before the due date. Every country and hospital has | (*see information below the table) Epidural vs. Spinal tap/block |

| | | |
|--|---|---|
| | <p>different preoperative requirements and procedures to follow.</p> <p>ii.Unplanned/Emergent - This delivery is performed due to unforeseen complications. E.g., Fetal distress, the mother is at risk, prolonged labor, etc.</p> | <p>These are both types of anesthesia sometimes used in the birthing process. The main difference is the placement and effect of the medication.</p> <p>General anesthesia This affects the whole body with loss of consciousness & the loss of protective reflexes. It is used when a C-section is urgent, and there isn't time for alternative anesthesia.</p> |
|--|---|---|

**Anesthesia Types*

Epidural: anesthesia is injected into the epidural space; it takes about 10min to place and another 10-15min for effect. The Catheter allows for continuous flow/doses of anesthesia. Used when there is enough time. You may still feel some pain.

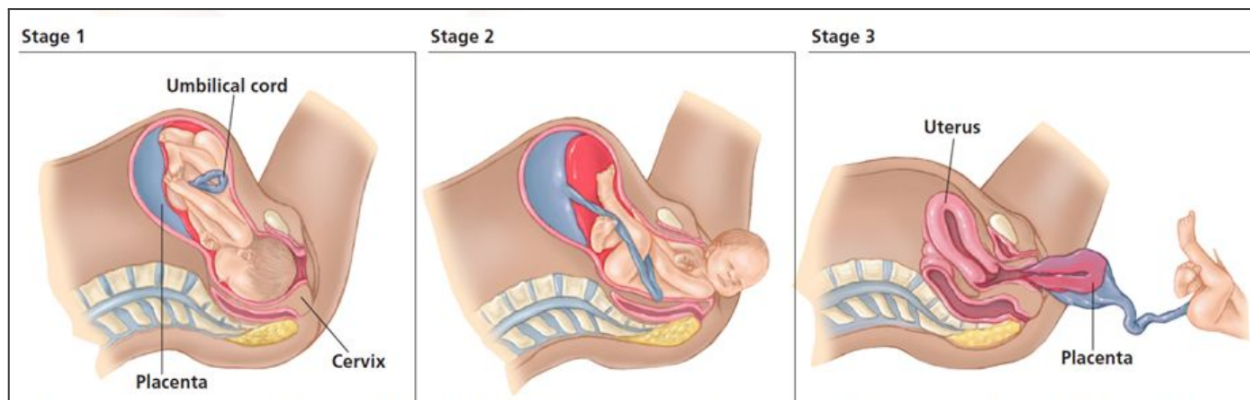
Spinal Block: anesthesia is injected into the dural sac that contains cerebrospinal fluid. Direct access gives immediate relief - it lasts 2-4 hours—complete pain block.



Stages of Natural Birth

In cases of an ideal unassisted natural birth - there are 3 main stages.

| Stage 1 Cervical Dilation | Stage 2 Expulsion | Stage 3 Placenta Delivery |
|---|--|--|
| <p>During early labor, the cervix starts to dilate so that it can soften and shorten and the mother will experience contractions.</p> <p>Once contractions are 5 min apart and 1 min in duration, labor is established. Once dilation is between 6-10cm, active labor commences..</p> | <p>The cervix is now fully dilated and the baby has pushed down the uterus and out through the vagina (birth canal) and is born.</p> | <p>The placenta (afterbirth) is delivered in one of 2 ways:</p> <p>Physiological - spontaneous with effort (up to 1 hour after birth).</p> <p>Active management - injecting contracting drugs to speed up placenta separation.</p> |



Issues during or before childbirth

Braxton Hicks - contractions of the uterus that are the body's way of preparing for actual labor. They are typically not felt until the second or third trimester and do not indicate that labor has begun. (Also known as *prodromal* or *false labor pains*).

Fetal asphyxia - is when the baby does not receive enough oxygen before, during, or directly after birth. Immediate treatment is necessary to ensure that the baby gets enough oxygen. It can cause serious complications or be life-threatening.

Premature birth - a baby is considered premature when born before 37 weeks. Many premature babies have a Low Birth Weight (LBW) and underdeveloped lungs.

Neonatal Assessments

Once babies have emerged into the world; they are no longer considered a fetus. They are now considered a Neonate. Several tests are conducted from birth to check the health of a baby. Below is a series of assessments and the age at which they are performed:

| Assessment | Definition | Age |
|---|--|--|
| APGAR (Appearance, Pulse, Grimace response, Activity, Respiration) | This is a number scale test. The scale is from 1 to 10 and tests several things. Some of the things tested are the heart rate, skin color, muscle tone, reflexes, and respiratory effort. | Birth (1 and 5 minutes after birth) |
| BNAS (Brazelton Neonatal Assessment Scale) | This scale assesses the baby's behavior, such as whether they are rooting, suckling, crying, etc. It also assesses neurological functions. | 3 days - 1-month |
| CIIS (Cattell Infant Intelligence Scale) | This scale has been an assessment tool since 1950. It focuses on motor development and assesses an infant's reaction to objects. (Is an extension of the Stanford Binet Intelligence Test.) | 3-30 months |

Bonding

Right after birth, some mothers bond with their babies by placing them on their chests. This promotes natural bonding processes with heart rate, neonatal reflexes, and releasing hormones. Birth hormones are chemical “messengers” that both you and your baby’s bodies make. These hormones work together to guide important changes such as preparation for labor, labor, and breastfeeding. Early bonding also sets the stage for healthy relationships and emotional expression later on in life. You and your baby may bond within a few minutes, over a few days, or even a few weeks. The Bonding process might take longer if your baby was separated from you due to medical reasons at birth. If you adopted your baby, you could bond just as biological parents bond with their children.

Do not worry or feel guilty if it takes more time than you expected to form a close bond with your baby. As long as you are taking care of your baby's basic needs, the bond will form. The first 2 years of your child’s life are when crucial bonding occurs.

K. Factors in Early Development

When considering these issues, there are three significant parts we have to consider, specifically focusing on prenatal and early development.

Genetics - When genetic problems occur, they can impact the current and future development of the child. Genetic testing is not widely available in lower socioeconomic status communities.

Environmental - Maternal drug use can have major consequences. Smoking can lead to impacted birth weight and neurological damage during pregnancy. Alcohol can lead to heart defects. The lack of access to proper nutrition is a major factor that impacts development in children during pregnancy and young age.

Cultural - Permissiveness, family instability, peer influence, family structure, and lack of knowledge all contribute to decisions made during pregnancy and the early years.

L. Fetal Brain Development

Brain development occurs rapidly in a fetus and starts very soon after conception. For this module, we must understand brain development in trimester.

First Trimester (1-3 months) - This is the most important part of development to ensure the normal development of the fetus. During the third week, the fetal brain will start developing - the neurons and glia form, starting the basis for the nervous system. Some will develop into the cerebral cortex.

A neural tube will form around 25 days in, allowing the brain, cerebral cortex, and spinal cord to form from the neural tube. At the end of the second month, the embryo will start to look like a human shape, with a large head in proportion to the rest of the body. By the end of the first trimester, the fetus will gain reflexes.

Second Trimester (4-6 months) - During the second trimester, the development of neural connections is key. After 16 weeks, the fetus will develop more reflexes such as sucking and swallowing. After 24 weeks, neuronal migration is complete, and thus, the brain is fully developed. The fetus will start to react to noises and begin to kick.

Third Trimester (7-9 months) - Massive growth of the brain occurs during this period. The movement of the fetus will become more intense during this time, and reaction to external stimuli such as the mother's voice or touch will be very apparent. The cerebral cortex takes over from the brain stem to ensure future learning. In the 9th month, the fetus will have the same neurons as an adult, even though the size is merely 25% of an adult's brain.

Chapter 3: Review Questions

- 1. What does the term zygote refer to?**
 - a. Chromosome pair
 - b. Sperm cell
 - c. Recessive gene
 - d. Fertilized egg
- 2. In which period does the digestive system begin to develop?**
 - a. Fetal
 - b. Embryonic
 - c. Germinal
 - d. Uterine
- 3. Which of the following is sex-linked chromosomal abnormality?**
 - a. PKU
 - b. Klinefelter's Syndrome
 - c. Huntington's Disease
 - d. Sickle cell anemia
- 4. The XO chromosome pattern is a characteristic of:**
 - a. Turner's Syndrome
 - b. Down's Syndrome
 - c. Fragile X Syndrome
 - d. PKU
- 5. Of the following answers, which one may result in slow fetal growth?**
 - a. Cigarettes
 - b. Liquor
 - c. Malnutrition
 - d. All of the Above
- 6. Cellular differentiation is:**
 - a. The process by which cells divide
 - b. The methods by which cells connect to form tissue
 - c. The process by which cells specialize for specific functions
 - d. The process by which cells break down waste products
- 7. What is the outer layer of the embryo called during the embryonic period?**
 - a. Endoderm
 - b. Mesoderm
 - c. Ectoderm
 - d. None of the above
- 8. What test is used to measure the critical functions of a newborn?**
 - a. APGAR
 - b. Brazelton Scale
 - c. Age of viability
 - d. None of the above.



9. What are blue eyes an example of?

- a. Recessive trait
- b. Dominant trait
- c. Genotype
- d. All of the above

10. Of the following, which one is a fetal membrane?

- a. Chorion
- b. Endoderm
- c. Ectoderm
- d. Mesoderm



Chapter 4: Infancy and Toddlerhood

Overview

In this chapter, we will be looking at the physical, cognitive, and social development of infants and toddlers. We will explore the different development categories throughout a person's life.

Learning Objectives

At the end of this chapter, you should be able to:

- Describe the different stages of physical development of infants
- Understand the development of the various reflexes
- Explain what the role of nutrition plays in infant development
- Describe the different categories of attachment regarding children and adults

A. Physical Development

Some newborns are equipped with some skills that help with their development.

Let's look at some of the skills in the chart below

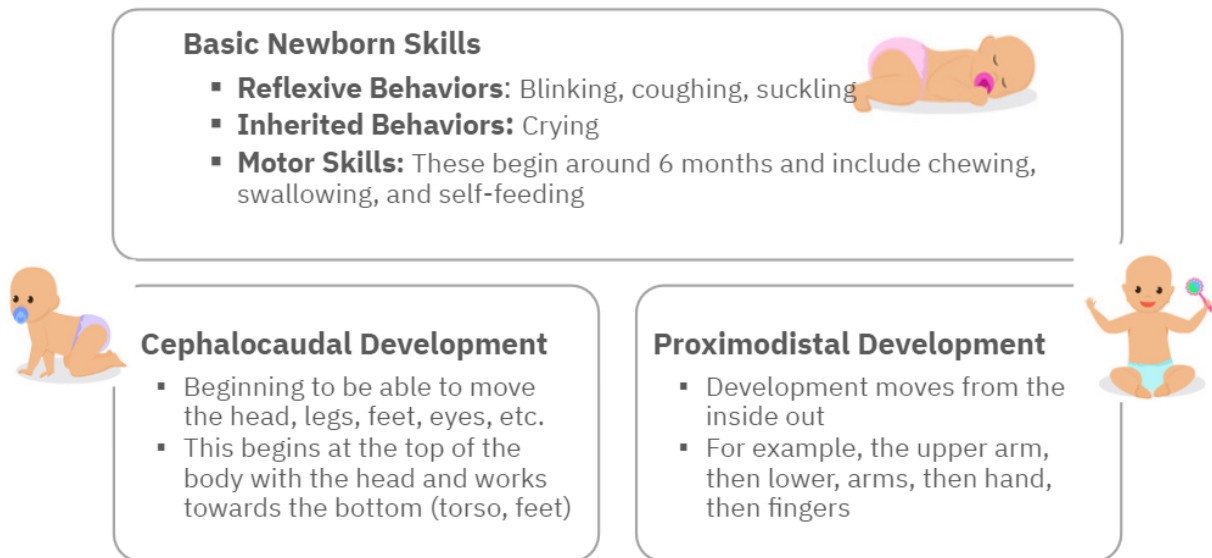
| Name of Behavior or Skills | Examples |
|----------------------------|--|
| Reflexive Behaviors | Coughing, Blinking, and Suckling |
| Inherited Behaviors | These behaviors include those that have already been programmed without having any experience with the behavior, such as crying. |
| Motor Skills | These are the skills that begin being learned around 6 months of age. Some things include: Chewing, Swallowing, and Self-feeding |

During infancy, the **cephalocaudal** and **proximodistal** development will continue. When talking about the cephalocaudal principle, this is when the infant develops movements starting at the head and moving down to the feet. Infants will learn how to control head movements, eye movements, and face, and usually learn this before learning how to control the arms, legs, feet, and torso.

When talking about the proximodistal principle, an infant's body develops from the center of the body and outward. Infants will learn to control their muscles first in the upper arm and then work on the lower arm, eventually learning how to control their hands and fingers.

After the fetus has been born, the nervous system will continue to develop. A type of nerve cell, the neurons will begin undergoing plenty of changes. The axons, which are neural fibers that carry messages away from one neuron to another neuron, will start growing longer. The Dendrites, the neural fibers that receive messages, will multiply. The connections between the neurons will grow much stronger as the brain develops more. Interestingly, when someone is born, they have approximately one hundred billion brain cells, most of which are immature. The neural connections will allow the neural cells to become much more efficient and help process more information. This will enable a child to gain more skills. One

of the last parts of the body to fully develop is the cortex. The cortex is needed to help control self-regulatory behaviors. These behaviors include walking, sleeping, defecation, eating, and urination.



B. Motor Skill Development

Many infants will learn skills without having someone teaching them. Infants learn things through observing others. Human interaction during this period of an infant's life is vitally critical for appropriate development. It has been found that children who have been raised by parents who held them a lot or have left them in confined spaces tend to have a slower development rate than a child who is put on the floor and allowed to explore. The children who are given the opportunity will be able to learn how to walk quicker and have a better stepping reflex. The stepping reflex is a gross motor skill, a significant body movement. Fine motor skills usually refer to small body movements.

C. Reflexes

Let's now move the focus to reflexes. Reflexes are involuntary responses to stimuli. These are usually the first motor skills that an infant will develop in their life. There are three primary reflexes.

Let's look at them below.

- **Breathing Reflex:** This maintains oxygen levels
- **Suckling Reflex:** This action that allows for the enabling of feeding
- **Rooting Reflex:** This is what infants do when they are attempting to find the mother's nipple when they are hungry. Babies can smell the hormones that come from a mother's milk. Rooting is also triggered when the lip of the baby touches a nipple.

Here are some other reflexes that are not as critical but are still needed for survival

- **Moro Reflex:** This reflex is also called the startle reflex. These are usually brisk, symmetrical, and are generally accompanied by crying. This reflex usually takes place when an infant is startled. They will throw their arms out and pull them close to their chest. This reflex is known for helping a child not fall from the arms of their mother/father.

- **Babinski Reflex:** This occurs when an infant has their foot rubbed. Usually, the big toe will turn in while the rest of the toes will fan in an outward motion. While this is considered a cute reflex, it only lasts the first few months of life.
- **Plantar Reflex:** This is the reflex that will come later in infancy. When the baby has their feet touched, their toes will flex.
- **Tonic Neck Reflex:** This reflex is also known as the fencing stance. The infant will turn their head to one side, and the opposite arm will extend out. The ipsilateral arm will curl behind their head.
- **Palmar Reflex:** When an infant will hold on to something placed in the palm of their hand.
- **Swimming Reflex:** This reflex occurs when the baby/infant is lowered into the water, whether it is a tub, pool, etc. Infants will hold their breath and kick their legs/feet, just as if they were treading in water.

Motor Skills

- Learned through observation; human interaction is vital
- Infants allowed to explore their environment develop motor skills faster than those who are held all the time

Reflexes (Involuntary Responses)

| | |
|-------------------|---|
| Breathing | It helps a newborn maintain the oxygen level |
| Suckling | Allows the newborn to be able to feed |
| Rooting | It helps the newborn move the head to find a food source |
| Moro | Startle reflex to avoid falling |
| Babinski | When the foot is rubbed, the big toe turns in, and the others fan-out |
| Plantar | When the foot is touched, the toes will flex |
| Tonic Neck | Turning the neck one way and the opposite arm the other |
| Palmer | When an object is placed in the hand, it will grasp it |
| Swimming | Infant will kick legs when placed in water |

D. Sensory-Perceptual Development

Newborns have immature sensations and perception abilities compared to adults. Newborns are known for using all 5 of the human senses and can respond to stimuli such as being in pain and feeling a temperature. One of the unfortunate aspects is that infants cannot verbally communicate the way they feel about a specific stimulus. Researchers hypothesize that in infants who are exposed to unaccustomed stimuli, their suckling pattern and suckling rate will increase. When they are exposed to something familiar, their behaviors return to normal.

Newborn vision and hearing tend to develop more slowly than the other senses. Vision is least developed because the lens can only change its focus. Babies/infants start out being near-sighted and like to look at bright colors and familiar faces. Around 14 weeks of age, infants can start focusing both of their eyes, creating what is called **binocular vision**. When infants are between ages 7 and 12 months, their vision has improved so much that it has the capabilities of an adult.

Infant development is known for its rapid development. A fetus can hear its mother's voice while they are inside the womb. It is fascinating that newborns can tell the difference between their mothers' voices and other voices they hear while in the womb. As the hearing continues to develop, infants turn their heads when they hear a noise and focus their eyes on the stimuli (sound).

Attention is the ability to focus on a task or object. As humans age, our capacity for attention changes, and thus our perceptual development changes as well. These can include changes in the attention span, focus areas, and the ability to use different senses to accomplish goals.

E. Nutrition

Proper nutrition is vitally important to the development of infants. Studies show that infants will grow rapidly, and they will double their birth weight within the first few months. Infants cannot digest solid foods before 6 months of age, so they are on a liquid diet such as breast milk or formula before being introduced to solids. These methods provide the necessary nutrients that an infant needs to help them grow. While both options have nutrients, doctors suggest that breast milk is used. This is thanks to the high amount of vitamins, minerals, and antibodies they contain. After the baby is born, antibodies appear immediately, which allows the mother to immediately start feeding the baby and providing him or her with the nutrients that he or she needs. Depending on the parents' country and culture of origin - they may breastfeed their babies for more than 6 months or for the first few years of the babies' life. In the United States, a mother breastfeeds her child, usually for no more than 6 months. According to the World Health Organization, the average weaning age is 4 and a half years.

One of the most common problems among infants is **macronutrient malnutrition**. This occurs when there isn't enough calorie intake for the child to do well and develop properly. The term that is used to describe extreme macronutrient malnutrition is **marasmus**. Marasmus is where an infant will only weigh approximately 60 percent of his or her recommended weight. Also, the infant will not grow and develop, and the chance of death increases greatly and becomes more probable. **Kwashiorkor** is another type of nutrient deficiency. The human nervous system develops rapidly, and with kwashiorkor, damage to one neurological system will occur. Kwashiorkor is one of the world's most leading causes of infant deaths. This also occurs more in developed countries. Infants are more commonly known to deal with micronutrient malnutrition than protein malnutrition. Infants are known to deal with iron and calcium deficiencies.

F. Cognitive Development

Jean Piaget believed that infants go through the sensorimotor stage for most of their infancy. Piaget said that a developing child might perform a series of tasks that will trigger their sensory and motor systems. This is called Sensorimotor intelligence, and it begins with the learning of reflexes such as listening to sounds, grasping objects put into the hand, and suckling. When a child grows and continues to develop, sensorimotor intelligence begins to become more complex. Tasks will become more involved and will include more objects and people other than the infant him/herself. Infants will start learning patterns and the characteristics of objects that they encounter. When a child turns approximately a year of age, they are able to engage in goal-directed behaviors.



Jean Piaget

Goal-ended behaviors include things such as grabbing a toy or crawling from one side of the room to the other.

How do children accomplish goal-directed behaviors? This question was answered by Jean Piaget, and he believed that they accomplished this by using **schema**. This is defined as the way infants are able to create mental models that will help them learn. According to Piaget, there are 2 different ways an infant can learn.

Assimilation: Infants incorporate newly established information into information that is already established.

Accommodation: Infants modify schemas that will include new information.

One of the most important things about schemas is **object permanence**. This is the involvement of awareness of the existence of an object. This can occur even if the object is not in eyesight. Object permanence occurs around 8 months of age. Reversal is also an important schema, which is an action that can be undone if needed.

Perceptual constancy is another known skill that children will eventually gain. This skill allows the child to understand that objects will remain the same shape and remain the same size even if the object is far away or close by. Before this skill is acquired, a child will believe that the shape and size of an object will change when they move close to it or move away from it.

The categorization and pattern recognition will begin during infancy. Babies who are younger than 6 months old are able to categorize items that are based on the shape, size, number, angle, and density of an object. Therefore, some people believe that children at this particular age are able to understand and have the ability to discriminate between objects that are similar.

The infographic consists of six numbered boxes arranged in a 2x3 grid, each with a colored header and a rounded rectangular body containing text. The boxes are: 01 (purple), 02 (orange), 03 (grey), 04 (purple), 05 (orange), and 06 (grey).

- 01 Reflex acts**
(0-1 months) Neonates respond to external stimulation with a reflex, such as when a baby suks reflexively on someone 's finger
- 02 Primary Circular Reactions**
(1-4 months) The baby will wiggle fingers, kick legs and suck thumbs not as a reflex but rather because pleasurable actions now get repeated.
- 03 Secondary Circular Reactions**
(4-8 months) Those pleasurable actions will now include objects, such as when baby shakes toys that make noises
- 04 Coordinating Secondary Schemes**
(8-12 months) Babies start using their learned knowledge to reach goals such as knocking over an object to get to another
- 05 Tertiary Circular Reactions**
These are intentional changes to specific situations such as when an infant takes a toy apart and puts it back together again
- 06 Symbolic Thought**
This a transitory phase towards the preoperational stage, Babies can now starts visualizing objects that ara not in front of them

G. Sensory Coordination

When we smell something, we are usually seeing what we are smelling. The senses are not used one at a time. They are used together so that there is a better understanding of the environment one is in. An infant's ability to understand the environment around them is called **intermodal perception**. Some

infants have the ability to exhibit intermodal perception to some degree. Some infants may hear a sound and will look in the opposite direction or somewhere not even in the same direction when they are looking for the sound and where it came one. **Cross-modal perception** is known as the ability to be able to imagine a single sense while using another sense. The cross-modal perception begins and continues to develop as a child matures and physically grows.

Some believe that babies who are less than 6 months of age have the ability to categorize items that are based on different characteristics. Characteristics by which they are organized are size, color, shape, how many items there are, etc. Around 12 months of age or 1 year old, some children can actually tell the difference between animals within a particular species.

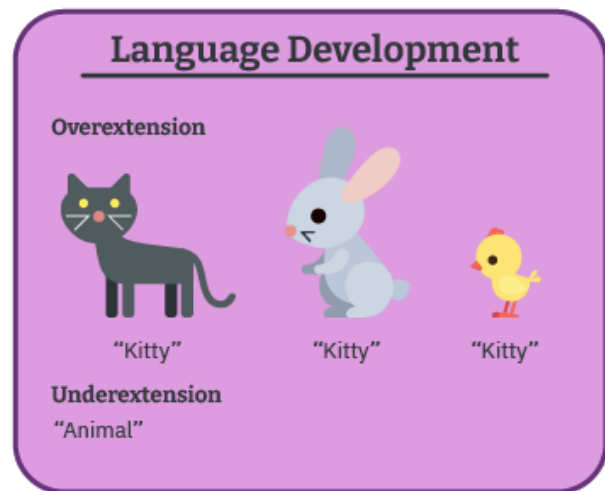
H. Language Development

When babies are born, they have the ability to learn any language. By the time a child turns approximately 4 or 5 years old, they have mastered the multiple levels of a spoken language. This is regardless of what language the child learns to speak or what culture they come from. They all appear to have the ability to transition through the same language learning stages.

When being able to learn a language, children will first start babbling. These are usually non-recognizable syllables. A **phoneme** is known as the unit of sound that occurs at the beginning stage of language development. The phoneme will usually mold within a child as they are exposed to different languages. Prominent language psychologist, Noam Chomsky, saw evidence that all babies, no matter their culture, have the mechanics to learn languages. Chomsky also believed that children who are subjected to sign language will learn to hand-babble prior to learning verbal babbling. Children who are exposed to sign language will also eventually learn to sign. Neural pathways of kinesthetic language will develop prior to the pathways of verbal language.

Usually, during the first year of a child's life, they will start to narrow down phonemes to the specific language that they are exposed to, which includes sign language. By the 20th month of development, children will keep adding more words to their vocabulary. At this age, children will have a developed vocabulary of at least 20 words. Further down development, hundreds and thousands of words are added to a child's vocabulary. The use of words and signs will vary when children are either **overextending** or **underextending**. When a child overextends a word, this means that when they use a certain word, such as dog, they are referring to all four-legged animals. When a child under-extends a word, they may refer to a dog in their family but won't refer to another family's animal as a dog.

The extent a child learns a language depends on how much verbal interaction the child is exposed to. For



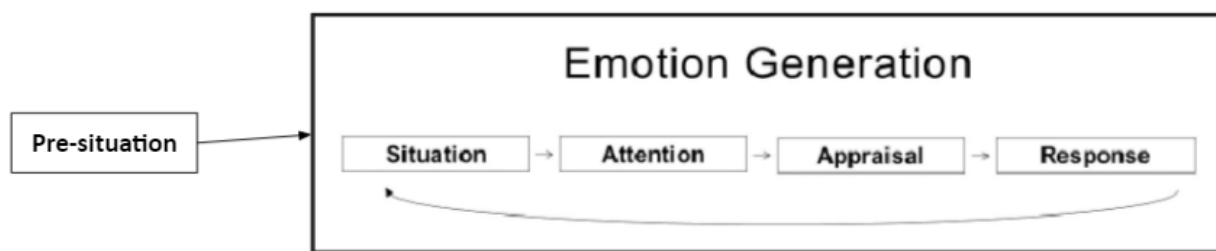
example, a child whose parents or family do not communicate with the child much may not develop communication skills as much as a child would whose parents talk with their child and stimulate them. Complex communication may be when a child creates high-pitched sounds, and the sounds that a mother produces, as well as the phonemes, create complex communications. Complex communication is considered a form of conversation that contains questions and either basic or complex commands.

All humans pay attention to new and interesting things, but when left in the same environment, they get accustomed to their surroundings and stop paying as much attention. This process is called **habituation**. Infants will be ready to pay attention to something new that might occur, known as dishabituation. Scientists use these reactions to stimuli to notice changes and in turn, learn how the infant thinks and learns.

I. Social and Emotional Development

| DEFINITION | |
|------------------------------|--|
| Emotional regulation | Conscious or nonconscious control of affect, emotion, or mood. |
| Conscious control | Active effort or thought process to control your emotion (coping mechanism) |
| Non-conscious control | The thoughts and behaviors we don't control, such as your level of being emotional or temperament |
| Emotion | Single emotions that can easily be defined such as sadness, happiness or anger |
| Mood | Emotional state that can last for a longer period and which emotions are built off of, such as a good mood enables you to be more prone to happiness |
| Affect | Description of a person's immediate emotional state such as happy, angry, confused |

The Modal Model describes an interaction between internal and external events. At each of the levels, changes occur to change how a person will respond. E.g., Seeing your child hasn't cleaned their room, and before you give a response, they come up behind you with a card they made to show you how much they love you. So initially, the response might've been completely different, but the card changed the reaction.



When children are born, they will start learning how to be social and will develop emotions. Children clearly have a preference for people they are more familiar with than they are with a stranger. Children may also prefer a specific toy or another object that they are familiar with rather than a strange, new object or item. Separation anxiety can occur when a child is separated from a parent or a loved one who is their caregiver. Separation anxiety can happen at various ages, but on average, a child will begin

experiencing separation anxiety around 12 through 16 months of age, and it will slowly go away after 16 months. **Attachment** is an infant's way of seeking interaction with specific individuals. A woman by the name of Mary Ainsworth is credited with creating a series of experiments that help others have a better understanding of infant attachment. Ainsworth's most popular study was called The Stranger Situation. This study looked at the different ways attachment can form between children and their caregivers.

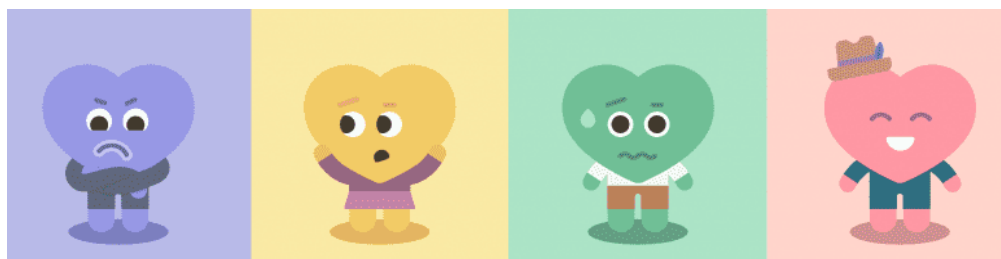
Aspects of “The Stranger Situation”

In this study, a mother and a child were in a room together where there were toys and games that they could use together. The child was allowed to move freely and explore the toys and games. After a little while, a stranger came into the room and approached the child. The mother walked out of the room, leaving the child with the stranger that had just entered the room. The stranger would leave the room as the mother would come back in. This went on several times. The child was studied through a standard one-way mirror to see the reaction he or she would have to the stranger and the mother. There are four different types of attachment that occurred and were categorized into the following:

Securely attached: The children placed in this category were seen playing with the games and toys and were known for getting along with the stranger who entered the room. The child became distressed when the mother left the room. When the mother came back into the room, the child went to the mother to receive comfort. After the child felt comfortable again, he or she would go and play with the toys again.

Insecurely Attached and Avoidant: In this category, children did not appear to be upset when the mother left the room, and the stranger entered. When the children in this category would be upset, the stranger was able to comfort them. When the mother returned to the room, the children ignored her and/or proceeded to approach her with caution.

Insecurely Attached and Resistant: The children in this category were very attached to their mothers and didn't want to leave her embrace to play with the toys and games provided. The mother left the room, and the child became very distraught. When the mother returned, the child was hesitant to return back to the mother. The child appeared as if they wanted to be picked up but appeared to be confused and became angry and agitated.



Social Referencing: This category is where the child will feed off the mother's attitudes when it comes to the stranger. The child would mimic the mother's behavior. If the mother didn't get anxious over the stranger, neither did the child. When the mother became upset, the child would become upset.

This study found that infants/babies did become attached prior to one year of age. When the parent takes care of the child's needs either physically or emotionally, the child becomes securely attached. The parents that were not responsive to the child's needs would become insecurely attached.

J. Personality

Personalities can vary from person to person and can be pretty unique. There are several factors that will affect a person's personality. Let's look at a couple below.

- *Genetic Factor*: Several personality characteristics have been studied since birth. Some of these are levels of activity, attention span, how well someone adapts to situations, a person's temperament, and many other characteristics. **Temperament** is known as the consistent disposition that reflects a personal response to other people and things. When looking at correlation studies, identical twins tend to score higher than fraternal twins or siblings in relation to temperament.
- **Three Major Temperaments**: There are three different temperaments. The three are **extroverted**, **placid**, and **shy**. Something that these temperaments indicate is levels of sociability as well as extroversion and shyness. These are the three that have been heavily studied. Psychologist Jerome Kagan is one of the individuals that studied the notion of shyness and how it is applicable to the first few months of life. Kagan believed that during the first months of life, there is a self-conscious attitude towards seeing new people or objects. This contributes to shyness.

There are three different theories that have been used to attempt an understanding of how a shy personality develops.

- *Learning Theory*: This personality is typically shaped by reinforcement, as well as a punishment given by parents. If a child is punished when asked to clean up their mess, then there is a chance that the child will look at the repercussions of not doing what they are asked and will start cleaning up their mess. When a parent reacts to positive action, the child will see that this is a good thing and will act accordingly. Something that this theory does do is blame parents for creating a poorly adjusted child. This personality is where children "learn" from their parents.
- *Psychoanalytic Theory*: Theorists studying this theory believe that personality is developed during the first 4 years of life. It was Freud that created the **Four Stages of Psychoanalytic Development**. In his four stages, 2 of them are relevant to this particular theory.
 - *Oral Stage*: This is the stage where children discover things with their mouths. Weaning is one of the most important tasks during this stage.
 - *Anal Stage*: One of the most important tasks in this stage is potty training. It was Freud that believed that if children did not accomplish learning how to use the potty, they would become fixated and not leave this stage, and that it would cause personality problems in the future. Though his point was seen, the arguments that Freud made were highly scrutinized.

- *Psychosocial Theory*: It was Erik Erikson who proposed the notion that the development of personality was inclusive and only occurred through particular stages of development. Erikson believed that there were two developmental stages that coincided with this theory.
- *Trust vs. Mistrust*: This occurs when a child is born and lasts until the child is approximately 1 year old. This is the period when they attempt to learn what they can trust and what they can't trust.
- *Autonomy vs. Shame/Doubt*: This stage begins when a child is approximately 2 years of age. This stage also usually only lasts about a year, so it will end once the child is approximately 3 years old. This is where a child will explore and develop independence. When toddlers are allowed to explore their surroundings, they become autonomous, but if children are punished for exploring, they will doubt their ability to become independent.

K. Non-Parental Daycare

There is another crucial aspect when it comes to the psychology of toddlers. A recent study found that time spent in daycare does not affect either parent's attachment security; this is seen as consistent with other studies that report that the number of hours in daycare doesn't affect attachment. A lot of research has been done on the effects that early daycare has on socioemotional development. Nearly all of this is about the potential risk posed by nonparental care for parent-child attachment. Data shows that for most children, introducing them to daycare doesn't prevent you from being a supportive parent. Further studies have suggested that children who are placed in daycare without a parent being their caregiver at the time do better at adjusting than a non-daycare child. Quality daycare usually has a low caretaker-to-child ratio, as well as high levels of sensorimotor involvement; also, higher levels of safety and health.

L. Sleep and the Sleep Cycle

As we sleep, our body goes through 4 to 6 sleep cycles a night. We go through these different cycles as the night goes on. Each cycle can last between 90 to 120 minutes. For example, a 90-minute cycle can have 5 different stages of sleep. These cycles can last up to 120 minutes throughout your sleep or night. Let's discuss the different stages below:

Stage 1: The first 5-10 minutes is when you feel tired and drowsy or sleepy.

Stage 2: You enter a light sleep in stage two, also known as hypnagogia. This stage lasts approximately 20 minutes. Hypnagogia is the transitional state of consciousness between wakefulness and sleep.

Stage 3: During this stage, moderate sleep occurs and lasts between 10-20 minutes.

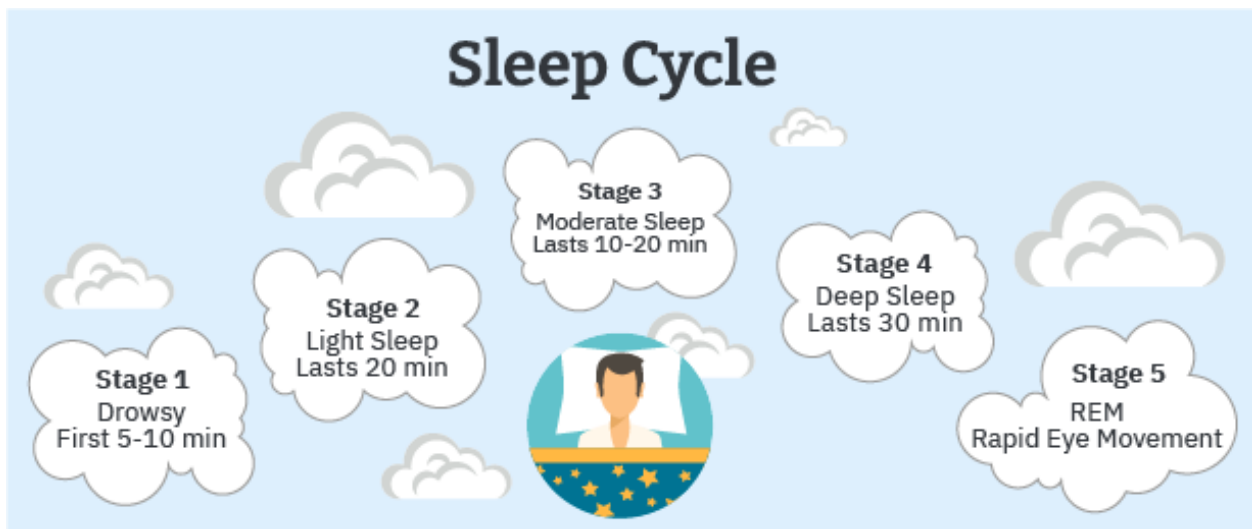
Stage 4: Deep sleep happens at stage 4 and lasts approximately 30 minutes.

Stage 5: This stage is characterized by REM, also known as Rapid Eye Movement, and occurs 90 minutes after falling asleep. Most of our dreams occur during this stage.

People experience sleep cycles differently as different factors such as habits, age, consumption, sleep patterns, and sleep disorders may interrupt a healthy sleep cycle.

The *sleep-wake cycle* corresponds to our **circadian rhythm** or **biological clock** that follows a 24-hour cycle. Our circadian rhythm controls the timing of our sleep by releasing hormones or regulating our temperature or metabolism. Our circadian rhythm also uses our environment, such as light and temperature, which tells our bodies it is time to sleep and can influence whether we are a morning person or a night owl. It is important to note that behavioral, physical, and mental changes occur in response to light, such as sleeping at night or staying up during the day, which is why persons who work night shifts might suffer from sleep deprivation.

During the first few weeks, physical states will refer to infants' arousal. This usually happens after routines of sleeping and waking transpire. Newborns spend roughly half of their time asleep in REM. Newborns sleep up to 18 hours each 24-hour period and thus can experience up to 9 hours of REM sleep per day.. As a baby's sleep schedule changes, so do their sleep cycles.



M. Developmental Milestones (birth to toddlerhood)

Developmental milestones are behaviors or physical skills seen in infants and children as they grow and develop. Rolling over, crawling, walking, and talking are all considered milestones. The milestones are split between age ranges. All Humans go through the process of growth and change. It is actually within the first two to four years of their life where their brain 'physically' develops the most as well as emotionally, cognitively, socially, and morally. An infant's brain and body develop in a certain sequence of events as they age - A key part of this is the development of the motor and sensory cortices.

Below you'll see a table summarizing the Developmental Milestones that are crucial in the growth and development of a human child, and shape how they will interact and learn from the world around them:

| | Developmental Milestones | | | |
|------------|--|--|---|---|
| Age | Movement / Physical | Language / Communication | Social / Emotional | Cognitive (learning/thinking) |
| 0-3 months | Can push up on their tummy (6weeks). | Crying, Cooing & Gurgling (3 months) | Reacts to discomfort & pain, Makes eye contact, self-soothes | Cries for attention, Listens to voices/sounds attentively, and discovers hands/feet. |
| 4-6 months | Holds head steady, Roll over (both ways), Bring hands to mouth, Start Sitting without support. | Babbling (6 months) | Self-awareness (separate self from parents and others) | Repeats enjoyable acts, Recognizes and responds to their own name, focuses intently on objects(use of eyes). |
| 9 months | Crawling, Sitting w/out support, Pulls from sitting to standing position. | Babbling continued | Social referencing (look to others for cues on how to react in a situation) E.g. smile at a stranger, and cry when in danger. | Copy sounds and gestures made by others. |
| 12 months | Standing and pulling up against objects. Walks while holding onto furniture. | First Words (Mama & Dada) (communicates Yes or No by shaking head) (waves 'bye bye') | Copy actions of others (clapping, winking, etc.) | Can put objects into a container (e.g block in a cup). Can seek hidden objects (e.g toys under a blanket). Can use objects for their intended purpose (e.g a cup for drinking, a comb for hair). |
| 18 months | Most children Walk unsupported. | Knows 5-40 words (18 months) | - Understanding of object ownership, recognizing the difference between 'you' and 'me'. - Cooperation and shared goal-directed behaviors. - Seeking comfort from supportive people. Early vocalizations: Tantrums | Comprehends simple instructions, Shows curiosity, Points to objects when named, Copies you doing chores, and Plays with toys. |
| 2 years | Can go on tiptoes, run, climb small steps, eat using a spoon, and get dressed with help. | 150-300 words 2-4 word sentences — Remembers names and repeats words | Shows excitement when seeing other children. — Development of self-conscious emotions like guilt, shame, and pride. | Find hidden objects, distinguish shapes and colors; remember lines from favorite books; start understanding rules. |

| | | | | |
|---------|--|--|---|--|
| 3 years | Can climb well (up/down stairs - using alternating feet), can run properly, can use a tricycle. | 900-1000 words Ask short questions — Use pronouns and plurals | — Understanding others' emotions. — Shows affection for friends. | Use toys with functioning parts (buttons, levers), play make-believe, solve puzzles (3-5pc), turn pages in a book, and open/close jar lids or door handles. |
| 4 years | Hop & stand on 1 foot for a bit, can dress and undress without help, use utensils under supervision, can catch a ball. | 2000 words 5+ word sentences — Know opposites (hot/cold, big/small) | More detailed make-believe play, get imaginary friends & have discussions (likes, wants, etc). Know the differences between boys and girls. | Follow 3-word instructions (wash your hands), Can name colors, numbers, and letters. Can understand the concept of time and 'same' / 'different'. Can use scissors, draw people and recall parts of stories. |

**It is not necessary to memorize the details in the table above for the exam. Just review and understand.*

Chapter 4: Review Questions

- 1. Which of the following reflexes occurs when a child's foot is stroked?**
 - a. Moro reflex
 - b. Stepping reflex
 - c. Babinski reflex
 - d. Rooting reflex
- 2. Of the following models, which one helps infants learn about their environment?**
 - a. Reversal
 - b. Schema
 - c. Object Permanence
 - d. Assimilation
- 3. What does the term *marasmus* refer to?**
 - a. Severe micronutrient malnutrition
 - b. Severe macronutrient malnutrition
 - c. Severe protein malnutrition
 - d. Severe calcium deficiency
- 4. Mary Ainsworth's experiments were done to study what?**
 - a. Attachment types
 - b. Personality types
 - c. Learning types
 - d. Daycare qualities
- 5. Of the following choices, which one of Erikson's stages of development is encountered during infancy?**
 - a. Integrity vs. Despair
 - b. Autonomy vs. Shame/Doubt
 - c. Initiative vs. Guilt
 - d. Trust vs. Mistrust
- 6. If a child pushes his or her toy off a table and does not start looking for it, which perceptual ability has not developed yet?**
 - a. Reversal
 - b. Assimilation
 - c. Object permanence
 - d. Attachment
- 7. Which of the following options did Noam Chomsky research?**
 - a. Language acquisition
 - b. Reflex development
 - c. Attachment
 - d. Nutritional deficiencies



- 8. When you hear a voice or sound that is familiar, what is this an example of?**
- a. Intermodal perception
 - b. Accommodation
 - c. Reversal
 - d. Cross-modal perception
- 9. Attachment bonds are the most important feeling of?**
- a. Affection
 - b. Security
 - c. Self-esteem
 - d. Belongingness
- 10. If an infant uses the term “dog” for a family dog but not for any other family’s dog, what is the infant doing?**
- a. Babbling
 - b. Overextending
 - c. Assimilating
 - d. Underextending



Chapter 5: Early Childhood

Overview

We have now reached chapter 5! In this chapter, we will be looking at the physical, cognitive, and social development during early childhood. We are now moving away from the first months of life to the next few years. We will also be discussing potential conflicts that may arise during this stage of life.

Learning Objectives

At the end of this chapter, you should be able to:

- Describe the physical development stages of a child
- Describe the social and emotional stages of development during childhood
- Understand the Preoperational Stage of Development created by Jean Piaget and Zone of Proximal Development by Vygotsky
- Understand stages of development during early childhood, according to Erik Erikson and Jean Freud
- Understand Baumrind's parenting styles
- Describe the different types of play
- Explain influences of daycare, divorce, and mass media on early childhood development

A. Physical Development

This is the time where children begin growing at a faster rate and will even start losing their baby fat. One of the most important things to remember is that children need to have proper nutrition. Proper nutrition is considered one of the simplest ways to help with physical development during childhood. Iron is considered to be an important aspect of a child's nutritional intake. One of the main concerns is that some children may face **iron deficiency anemia**. There have been plenty of theories that have attempted to explain why children go through any kind of deficiencies within developed countries. Some of the theories that have been that children are picky eaters, that children have a lack of nutritional education by parents, the age of their parents, as well as socioeconomic disparities of the child's parents.

The brain is also another part of the body that grows at a fast rate. While it is one of the fastest growing aspects of the body, it does not tend to grow by cellular division. It grows due to the formation of additional neural pathways. When the brain is constantly stimulated, then it will continue to grow. When actions and/or behaviors are repeated, connections between neurons that help complete the actions will become stronger. When the connection becomes stronger, children will become more coordinated, hence a quicker reaction time when completing actions. When there are lesser connections, then the connection used becomes weaker. With weakened neural connections, a lack of coordination will occur, and slower reflex times will occur.

Increased control of motor skills is created by increased coordination. Gross motor skills include activities such as running, jumping and larger bodily movements. Young children experience slower

motor skills and will take longer to improve said skills. Younger children, during their younger years, will spend most of their time exploring their surroundings. One of the number one causes of child mortalities is accidental death; such as drowning, choking and even poisoning. There are many other risk factors that raise the chance for accidental deaths. Some of these things are socioeconomic status, and a parent's involvement in their child's life. Studies show that children in lower socioeconomic statuses are three times more likely to die from an accidental death than counterparts in other socioeconomic statuses and categories.

B. Cognitive Development

Egocentric refers to the tendency to view the world from only their personal perspective. Assume everyone can see, feel, or hear what they do. Most children can rely on **scripts** or outlines of common occurrences that happen in their lives. Usually, children have the ability to exhibit empathy prior to this particular stage, which happens to be dependent on parent involvement as well as the surrounding environment. Intellectual and language skills will develop along with ever-increasing memory capabilities. During this stage, a child's memory is not quite mature enough to deal with difficult memories

Children who are of preschool age, are considered to be in the early childhood stage, or what Jean Piaget categorized as the **preoperational stage**. This particular stage does not last very long, as it usually lasts until a child has reached 6 years of age. Children in this stage will not be able to handle complex mental operations, but their language skills do improve. In the preoperational stage, children increase their skills and move towards performing even more complex situations or operations. One thing that this stage is known for is the milestone that occurs and that is children are able to communicate using symbols. This is a function called the **semiotic function**. When a child assumes that two objects have similar qualities, that the two objects are identical and is often referred to as **transductive reasoning**. An example would be a child calling all four-legged animals a dog even if there is no dog within the environment the child is in. One preoperational stage characteristic is called **centration**. This is when children have the ability to focus on a single object at a time, or perform one activity at a time, showing satisfaction with the single object or performing the one activity.

Jean Piaget's Stages of Cognitive Development:

| | |
|---|-------------------------|
| 1 | Sensorimotor |
| 2 | Preoperational |
| 3 | Concrete Operational |
| 4 | Formal Operational |
| 5 | Post-Formal Operational |

Jean Piaget studied a lot of things, and one of these things was a child's ability to reason and use logic. Some of the principles include conservation and irreversibility. Let's take a look at these two principles.

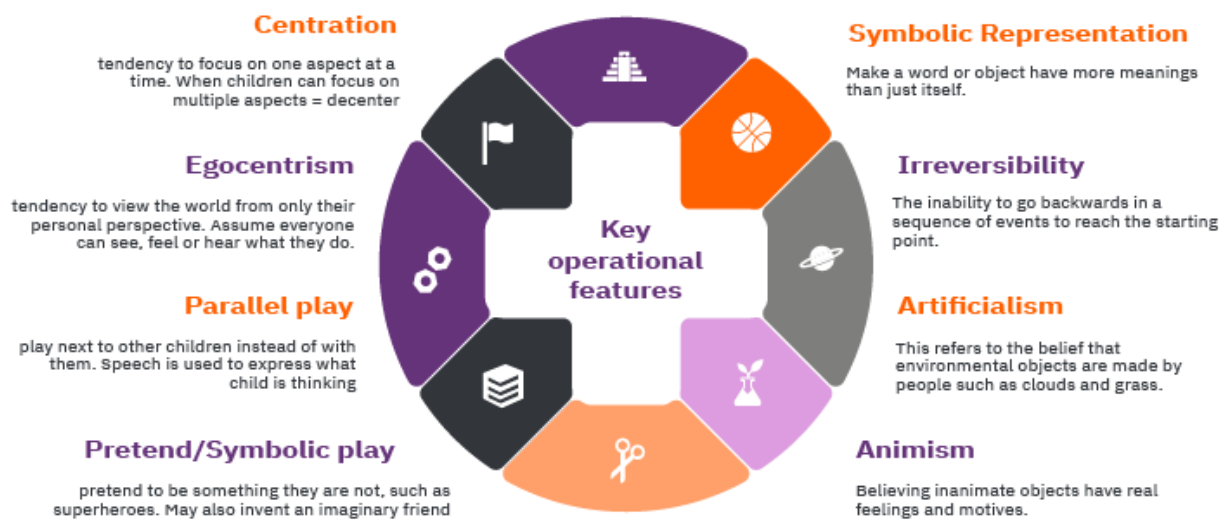
Conservation: This is the understanding that the amount or number is not affected by the placement or shape of the object. An experiment was conducted called the Classic Conservation Experiment.

Classic Conservation Experiment: A child was presented with 2 glasses that were short and wide. Both of the glasses had liquid in them that were the same volume. The child was asked to pour liquid from

one of the short glasses into a tall, slim glass. Since the child was not able to demonstrate conservation, the child believed that the tall glass had more liquid than the small glass just because the tall glass was...taller.

Irreversibility: This is where a child has the inability to understand that actions can be undone and returned to the state it was, to begin with.

Classic Irreversibility Experiment: In this experiment, a favorite toy belonging to a child was covered with a blanket. A child may not come to an understanding that the toy is just under the blanket and that it has not gone anywhere. This thought is due to the inability to process irreversibility.



C. Language and Grammar

Psychologist Lev Vygotsky is credited with refining the work of Jean Piaget, in reference to his cognitive development. Vygotsky focused more on a child's language development and believed that individuals in a child's life were influential in the development of a child's language. He also believed that there were very few components that were vital for the development of a child's language. Below are a couple of examples of Vygotsky's refining work of Piaget's works.

Private Speech: The belief that someone talks to themselves and represents externalized thoughts. It was believed that private speech, and the ability to represent externalized thoughts would lead to communication. This eventually became the belief of being inaudible and turned into verbal thoughts.



Zone of Proximal Development: The ZPD showed the difference between what a child can do and what the child needs, on an independent basis. Children tend to learn a bit faster when pushing the boundaries of the ZPD. Children exposed to wider zones have a better ability to learn.

It was Vygotsky who proposed that children began to utilize their grammar and language rules in early childhood. Overgeneralization of these rules is often committed by children which in turns into the use of overextension. An example would be pluralizing nouns by adding 's' to the end of all nouns used. Dogs become dogs, and teeth become toothes and not teeth.

Below is a short list of 5 language components that are of psychological importance.
Language Components of Psychological Importance

- Semantics: The study of word choices
- Phonemes: Sounds/noise
- Pragmatics: The language variations in societal contexts
- Morphemes: These are basic units of the meaning of words
- Syntax: The grammar of language



Semantics
The study
of word choices



Phonemes
Sound and
noise



Pragmatics
Language
variations in
societal
contexts



Morphemes
Basic units of
the meanings
of words



Syntax
The grammar
of language

At school, children learn about language and can experiment to see which different ways of communication work best. Education has become vitally important for children during the early years of life. Studies say that the earlier a child starts school or education elsewhere, they will have better chances at achieving things in life. There are significant components of the quality of preschool education. Some of these things are low student-to-teacher ratios, staff that go through regular training, and curricula that tend to focus on using imaginative play to help promote cognitive development.

Social and Emotional Development

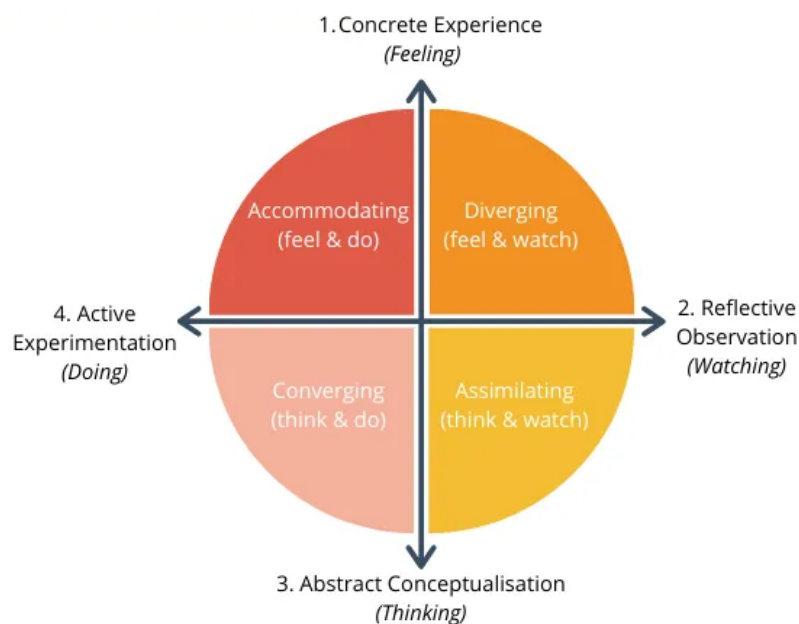
During the early stages of childhood, children are usually allowed to explore the environment around them. Giving children this freedom helps in the growth of self-confidence and learning social skills. When children get older, they may begin defining themselves physically and emotionally.

Erik Erikson said that children during the early childhood stage usually enter the initiative vs. guilt stage and will usually go through this until the age of 5. Children are allowed to play and interact with other children and adults and will partake in conversations and various activities through the day. Since there are a lot of environments that a child may be exposed to as well as a variety of activities that a child can participate in, children will learn about developing initiative.

D. Learning Theories

Many learning theorists have attempted to emphasize the idea of gender roles and how they are learned inside and outside the home. Parents will reward children who achieve gender-appropriate activities. Parents have taken the role of being pretty critical of gender behavior. Parents will sometimes say that their female child shouldn't climb trees or wrestle with other children because that is something that boys would do. The same thing applies to males. Male children are not known for playing with dolls or having tea parties. Parents may have problems when their children do things that would typically be done by the other sex.

David Kolb specialized in organizational behavior and educational theory. He proposed **Kolb's learning theory** in 1984 where he set out four distinct styles of learning.



E. Parent-Child Relationships

There is no single parenting style that works for all families. The study of different parenting styles has proven to affect a child's behavior. A lady by the name of Diana Baumrind had observed nursery schools and the parents of the students and interviewed them at their residences. It was through Baumrind's observations that she saw that there were 4 different qualities that varied between parenting styles. The four qualities are

- Parental Warmth
- Ability to control a child's actions
- Quantity and/or quality of communication between parents and children
- Parental expectations of age-appropriate behavior

There are three different but specific styles of parenting that Baumrind determined by the interviews she conducted with parents.



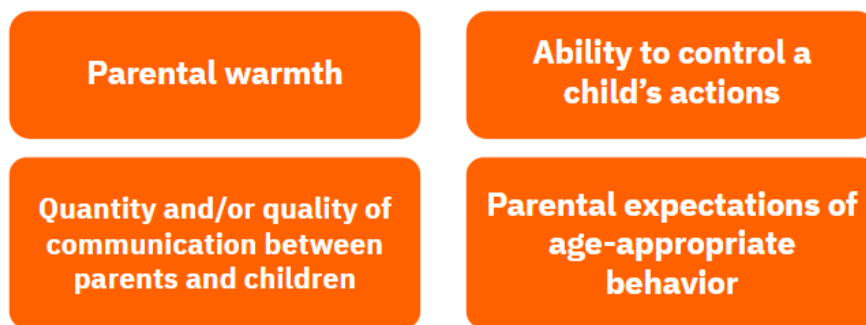
Diana Baumrind

Authoritarian Parents: These types of parents tend to have strict rules and will use punishments to reinforce the rules put into place. A parent's standards may be high, while communication is low on the spectrum. Authoritative parents do not usually have warmth towards their children and usually do not explain the reasoning behind having so many rules. The children of these types of parents will usually be obedient without the opportunity to truly be independent in the future.

Permissive Parents: These parents are very much the opposite of authoritarian parents. Permissive parents rarely set rules, and their child's behavior is rarely punished. Expectations are low, while communication is high, which is the complete opposite of authoritarian parents. Unlike authoritative parents, warmth towards their children is high. The children of these types of parents will have low self-confidence and will usually demonstrate poor behavior, especially in social situations.

Authoritative Parents: Parents in this style tend to set limits and will provide their children with guidance. There are high expectations as well as high communication expectations as well. Just like permissive parenting, warmth towards their children is high. Parents are willing to compromise with their children and give them the chance to talk while the parents listen. Children who have authoritative parents are typically happy and well adjusted. They also are generous and turn out to be independent.

There are other parenting styles, such as democratic-indulgent and rejecting-neglecting styles. These styles tend to have low expectations; demands and punishments are not relied upon as a viable use to control a child. Democratic-indulgent parents have warmth towards their children, while rejecting-neglecting parenting usually has cold and disengaged feelings towards their children.



F. Sibling Relationships and Birth Order

For years, the relationship between siblings has been complicated and will differ from parent and child relationships and peer relationships. Relationships between siblings are the longest relationship a child will go through in their life, and they may be pretty intense sometimes. Starting during the preschool years, siblings may go through what is called sibling rivalry. This is done to compete for the parent's attention.

Birth order is something that has been researched extensively, and there have been many conclusions made when it comes to birth order. An only child may become verbal, creative and struggle in social

relationships early on. Children who are the oldest of a sibling lineup tend to have better success in traditional fields, and middle and younger children will have better success in creative fields and social fields. Frequently, there are exceptions to the rule. A child's temperament, regardless if they are the oldest, youngest, or middle child, may have more influence on future achievement rather than the birth order.

G. Play Behaviors

During early childhood is when children blossom socially. They are considered to be very active socially. Some will play with children of the same age, while some may start showing favoritism towards a specific gender. There are several types of play behaviors. Let's look at them below.

Unoccupied Behavior: This is where the child does not actively play but stands and thinks about playing.

Solitary Play: This is where children will play by themselves, with toys that are different from those near them.

Onlooker Behavior: This is where a child will watch others play but is hesitant to go and play with the other children.

Parallel Play: A child will play next to another while playing with similar toys.



Associated Play: This is where children will play together in an unorganized manner

Cooperative Play: This is where children will play together in an organized manner

In conjunction with these types of play, they can be categorized and classified. Let's look at the classifications below.

Functional Play: Includes simple, repetitive motions with or without toys

Constructive Play: Includes the use of objects to construct something (Like Legos)

Dramatic Play: Includes the use of imaginary situations (make-believe) and Games with rules

H. Media in Early Childhood

Statistics show that by the age of 16 children spend more time in front of the television than they spend in a classroom. There is at least 1 television in the average American household, which typically is on for approximately 7 hours a day. Television can be a benefit or hindrance to children. For example, some cartoons can be violent, and some can be nonviolent.

Parents may become concerned with what is on television these days, but one of the most pressing concerns is the violence shown. Studies have looked into the effects that watching violence has on children. There was one study that involved 2 groups of children. The first group was allowed to watch violent cartoons, while the other group watched nonviolent cartoons. When the children were done watching the cartoons, the children who watched the violent cartoons ended up being more aggressive towards their peers and other children. The children who watched the nonviolent cartoons did not show aggression. One of the potential issues of introducing violence to children is that they will become desensitized to violence. It was suggested that if children become desensitized to violence, they will think that violence is acceptable behavior.

I. Childhood Fears

All children have fears at one point in their life. **Fear** is the anxious response to objects or stimuli. Some fears are ok to experience. For example, a child sees a fire and responds by leaving the house. This is a healthy fear, as it teaches the child that fires are dangerous. Some children experience fears that cause them to be withdrawn from others, clingy to their caregivers, and/or become anxious. The fear of dogs or even moving vehicles decreases as a child ages, while the fear of anticipated and unpredictable things such as a car accident may increase. Studies show that female children tend to be more fearful than male children. If adults show fear towards an animal or situation in the presence of a child, then the child may become wary of animals or a situation similar to the one the parent reacted to.

J. Concerns in Early Childhood

There are many events that may arise during early childhood that may affect a child's development. Let's look at a few below.

- Child Maltreatment:
 - Approximately 1 million cases are reported a year regarding the maltreatment of a child.
 - Includes physical, emotional, and sexual abuse
 - Including physical and emotional neglect
 - The rates in the United States are higher than in any other country. Some reasons include:
 - Lower socioeconomic statuses are typically shunned and not given the same opportunities as higher socioeconomic status families
 - Less social support for the parents
 - Lack of emphasis on what is actually best for a child
 - Lack of close family ties/less family to help support
 - Lack of parental education such as what to expect from a child and how to teach a child
 - A non-flexible routine may lead to abuse and neglect



- o Less than 10 percent of parents show pathology
- o There are **consequences of Maltreatment**
 - Possible learning disabilities
 - Poor self-esteem
 - Continuing a bad cycle
 - Emotional control
- o **Prevention** of Child Maltreatment
 - Parental education
 - Better job opportunities
 - Change in societal support for parents
- Daycare
 - o Previous inclinations were that daycares did not influence a child's development. There have been changes in these thoughts, and children who attend a preschool of good quality will become higher achievers. There is also a decreased chance that children would have to repeat a grade.
 - o Preschool-aged children have improved social skills but show more aggression towards others and become less polite.
- Divorce
 - o The United States is known for having the highest divorce rate in the entire world.
 - o Divorce has a negative effect on children due to the disruption of family dynamics.
 - o Children may show emotional pain and distress for a while after a divorce
 - o Children do eventually adjust; however, challenges may even last into adulthood.
 - o Some children may have a hard time coping due to the creation of instability in the household. The better the stability, the better a child may be able to cope with a divorce.



Chapter 5: Review Questions

- 1. Understanding the amount of liquid in a glass unaffected by shape is considered:**
 - a. Overextension
 - b. Classification
 - c. Conservation
 - d. Reversibility
- 2. In the context of human development, what term refers to the range of capabilities and skills that an individual has the potential to achieve?**
 - a. Object permanence
 - b. Zone of Proximal Development
 - c. Classification
 - d. Intelligence
- 3. What is it called when applying grammatical rules broadly?**
 - a. Division
 - b. Differentiation
 - c. Overextension
 - d. Variability
- 4. What does “pattern of play” vary with?**
 - a. Age
 - b. Gender
 - c. Social class
 - d. All of the above
- 5. According to Erik Erikson, in what direction does the parental focus shift as their child matures from being an infant to an adult?**
 - a. Control to nurture
 - b. Love to discipline
 - c. Spouse to child
 - d. Nurturance to control
- 6. Of the following options, which one is NOT a characteristic during the preoperative stage?**
 - a. Centration
 - b. Magical thinking
 - c. Empathy
 - d. Lack of conservation
- 7. In which of Erik Erikson’s stages does a child begin to identify and pursue goals?**
 - a. Identity vs. Role Confusion
 - b. Initiative vs. Guilt
 - c. Industry vs. Inferiority
 - d. Autonomy vs. Shame or Doubt



- 8. Which of the following is a cause of watching violence in the media?**
- a. People commit suicide
 - b. An increase in divorce
 - c. Desensitization to real violence
 - d. Decrease in peer relationships
- 9. If a child lacks self-confidence and does not show positive behaviors, what is causing this?**
- a. Permissive parents
 - b. Authoritarian parents
 - c. Authoritative parents
 - d. Passive parents
- 10. At what approximate age does the "Phallic Stage" in Freud's psychosexual development theory typically occur?**
- a. Birth to 1 year
 - b. 1 year to 3 years
 - c. 3 years to 6 years
 - d. 6 to 12 years

Chapter 6: Middle Childhood

Overview

In chapter 6, we will be looking at the physical, cognitive, and social development that occurs during middle childhood. We will also be looking at the concerns that may arise during this stage of life. It may seem as if the previous chapters seem similar, but the information you see varies by age.

Learning Objectives

At the end of this chapter, you should be able to:

- Describe stages of physical development during middle childhood (Often called the School Years)
- Understand what Piaget's Concrete Operational Stage of Development is and the key principles of logical operations
- Explain the Information Processing Theory, metacognition, learning disabilities, and theories of intelligence
- Describe social cognition, self-esteem, as well as how peer and family relations influence social development

A. Physical Development

Unlike during infancy and early childhood, growth begins to slow down. Keep in mind that usually, growth occurs without complications. Children during middle childhood tend to grow taller and slimmer. Their muscles will become more robust, and their capacity will increase. Slowing growth can be advantageous as it will allow children to learn how to become more coordinated and develop fine motor skills. Physical activity becomes more extensive as children exercise more and play community or school sports on a team. Doctors urge parents that exercise is vital during middle childhood. One way to help children is by active living. It's proven that it helps with keeping healthy by preventing diseases such as obesity.

More and more children have spent most of their time indoors, watching television and/or playing video games in recent years. This, unfortunately, has led to more and more children becoming obese. It is also said that psychological issues can occur in addition to physical health issues. If a child is suffering from being obese, there is an increased chance of being bullied in school, leading to depression and low self-esteem. By increasing the importance of exercise and healthy diets and increasing awareness of the obesity problem, children may understand the potential risks of obesity.

B. Cognitive Development

When children mature, there is an increase in myelination and synapses that will help children refine their behaviors and improve behaviors. **Automaticity** is increased due to the increase of myelination and synapses. It also leads to impulse control as well as selective attention. **Selective attention** is the ability

to concentrate on relevant information, such as information from a lecture while attempting to ignore distractions.

Children in middle childhood can learn how to plan, problem-solve and begin to recognize their skills, strengths, and weaknesses. **Metacognition** is known as the ability to think about thinking and process information. This way, you can identify the best way to complete a task(s).

Metacognition develops as a child moves through the middle childhood stage.

Memory in the middle childhood stage continues to improve. When a child enters higher grade levels, their increased memory becomes extremely helpful. It helps because more information needs to be retained and recalled. Two different storage strategies will help a child improve their memory.

Rehearsal: This is the repeating of information to make sure that the information can be remembered.

Reorganization: This is the regrouping of information so that it can be easily remembered.

Jean Piaget believed that children in the middle childhood stage are within the concrete operational stage. Here are some of the characteristics.

Conservation

Reversibility

Classification: The combination of objects into categories

Seriation: Organizing objects in an orderly manner (Large to small)

Compensation: This is the principle that changes in one dimension can be offset by changes in another dimension

C. Language

During the middle childhood stage, a child's communication skills will continue to improve and will gain more vocabulary, as well as grammar skills. The improved vocabulary and grammar skills allow them to be more logical and analytical. Many schools attempt to encourage children to learn another language.

Bilingualism has been proven to help improve cognitive development. The plasticity of young children helps them learn another language fairly easily and learn about various topics. Bilingual children usually come from a culture where two or more languages are spoken.

D. Intelligence

Children will progress through school, and as they do, schools will administer achievement tests to help measure how much the child has learned and retained on a particular topic. These tests are designed to measure a child's cognitive potential and are also used to gauge academic success or predict the potential for learning disabilities. One of the most popular tests is IQ tests or Intelligence Quotient tests. They are defined as a child's mental age divided by chronological age. One of the most frequently used IQ tests is the Stanford-Binet test and the Wechsler test. Each test measures a person's general knowledge, reasoning ability, memory, math, vocabulary, and spatial perception. There are different tests for varying ages, including preschool-age children. However, it is said that IQ tests need to be used with caution. Researchers only believe that these tests are useful when comparing other children of similar/same ages who took the same test.

One of the most known issues with the administration of traditional aptitude tests and achievement tests is that they only measure one kind of intelligence. A man by the name of Robert Sternberg proposed 3 types of intelligence. Let's look at those:

Academic Intelligence: This is measured by IQ tests and achievement tests

Creative Intelligence: This is measured by imaginative pursuits

Practical Intelligence: This is measured by everyday interactions and actions

Howard Gardner believed there were more types of intelligence. He believed there was linguistic, logical-mathematical, musical, spatial, body-kinesthetic, interpersonal, intrapersonal, naturalistic, and philosophical intelligence. Daniel Goleman is the gentleman who supported the idea of **emotional intelligence**, which includes self-control and communication of feelings. Children with high emotional intelligence tend to advance cooperation and harmony.

Howard Gardner believed there were **other types of intelligence:**

| | | |
|----------------------|------------------|---------------|
| Linguistic | Spatial | Interpersonal |
| Logical-mathematical | Body-Kinesthetic | Intrapersonal |
| Musical | Naturalistic | Philosophical |

Reasoning is one aspect of intelligent thinking. It helps us acquire knowledge, make sound decisions, solve problems, and avoid hazards and time-consuming trial and error efforts.

- **Deductive Reasoning-** From the top-down, from general principles to a conclusion about a specific case. When people reason deductively, they begin with a set of premises and determine what the premises imply about a specific situation. Deductive reasoning is the basis of formal mathematics and logic.
- **Inductive Reasoning-** Reasoning from the bottom up, starting with specific facts and trying to develop a general principle. Inductive reasoning leads to likelihood rather than certainty.
- **Algorithmic-** Formulas are precise sequences of procedures that automatically generate solutions. Mathematical formulas are algorithms and will always give the correct answer if used properly.
- **Heuristics-** These are general problem-solving strategies, similar to mental rules of thumb that we apply to certain classes of situations. One common heuristic, means-ends analysis, involves identifying differences between the present situation and the desired goal and making changes that reduce these differences. Another heuristic, subgoal analysis involves formulating subgoals, or intermediate steps, toward a solution. The representativeness heuristic consists in thinking about how closely something fits our prototype for that particular concept or class and, therefore, how likely it is to be a member of that class. This means that we are making categories in our brains.

- **Dialectical Reasoning-** Is reasoning which proceeds in the form of a dialogue, with one person making a statement and another making a response to it, which in its turn evokes a further response.

E. Children with Special Needs

There are many children with special needs, learning disabilities, and emotional handicaps, usually diagnosed during middle childhood. Some categories of special needs are detailed below.

- **Autism**
 - o Some of the main symptoms are:
 - Extreme isolation
 - Obsessive insistence on routine preservation
 - o Low level of family history
 - o Tend to avoid being overstimulated, and do not like to have disruptions in their daily routines
 - o Autistic children tend to repeat their behavior such as rocking back and forth or spinning which makes them feel comfortable.
 - o One theory: Children with autism are already overstimulated and are often prescribed sedative medication
- **Learning Disabilities**
 - o Children usually have problems mastering some basic skills
 - o Problems with basic skills are not due to mental retardation or due to physical handicaps such as deafness
 - o A disability that commonly affects learning is dyslexia which is a reading difficulty, next is dyscalculia which affects math skills. Then there's dysgraphia which makes it hard to speak or write.
 - o Some children with learning disabilities are segregated from regular classrooms and placed in rooms with special education teachers. (This was a previous practice)
 - o New practices allow students with learning disabilities to be placed in general classrooms (If possible)
 - o A compromise that seems to be the best option would be to allow a student with a learning disability into a general education classroom with the assistance of an aid. Debates revolve around whether or not to include children with learning disabilities.
- **Hyperactivity:**
 - o Children with hyperactivity usually have the following characteristics
 - Overactive
 - Impulsiveness
 - Restlessness
 - Distractibility
 - Short attention spans
 - o Usually diagnosed as **Attention Deficit Hyperactivity Disorder**
 - o **Attention Deficit Disorder** is related and has the same symptoms except for the hyperactivity
 - o Children who have ADD or ADHD will have difficulties choosing the appropriate emotional and/or behavioral response to given stimuli

- o Some believe that children develop ADD or ADHD because they are understimulated during the critical period of learning and during brain formation
- o Some of the treatments include
 - Medication
 - Environmental Changes
 - Structured Time
- **Gifted and Talented Students**
 - o Gifted children are born with above-average natural abilities whereas Talented children have developed their natural abilities to a high level.
 - o Giftedness is often defined as an intellectual ability linked to an IQ score of 130 or over. Students who are considered gifted will usually excel in an academic area. Some may display high creative, artistic, musical and/or leadership abilities relative to their peers.
 - o Gifted students tend to be divergent thinkers who will respond to situations in unusual ways. Their peers may be convergent thinkers who respond in normal/typical ways.
 - o Gifted children often do not need special needs classes in school
 - o Many schools in the United States provide assistance to gifted students. As a result, these students have the opportunity to experience special accelerated courses or programs.
 - o Gifted students are given enrichment courses and/or given challenging work.

F. Social and Emotional Development

Middle childhood is when children will explore their environment more independently. One of the most important goals is improving social cognition or increasing understanding of people and groups. Here are the two most influential theories regarding social development and emotional development.

- **Freud's Theory**
 - o The Latency stage of Psychosexual Development
 - o This stage occurs between 7 and 11 years of age
 - o This is where children focus on the outside world and acquire cognitive skills that are needed for adulthood
- **Erikson's Theory**
 - o Industry vs. Inferiority, Psychosocial Development Stage
 - o Occurs between ages 6 and 11 years of age
 - o Children begin doing things such as school work and artwork. Children begin feeling as if they are industrious
 - o If encouraged by caregivers, there will be continual feelings of industrious
 - o If dismissed by caregivers, the child may feel inferior
 - o Inferiority complexes are possible during this stage

During the middle childhood stage, self-esteem will continue to develop, and children will become even more introspective. During development, especially regarding self-esteem, children learn how to control their reactions and attempt to be more self-regulated. There are external factors that may affect the further development of self-esteem. Some examples of the external factors are socioeconomic status,

origin country, immigrant status, and even family dynamics are a factor. One of the most underestimated factors of self-esteem is peers. When children are bullied, teased, etc., their self-esteem will naturally decrease. Parents, grandparents, aunts, uncles, and other family members can help an individual's self-esteem. The structure of a family does not matter, as long as there is little conflict, and a high level of support at home can help immensely during the development of a child's self-esteem.

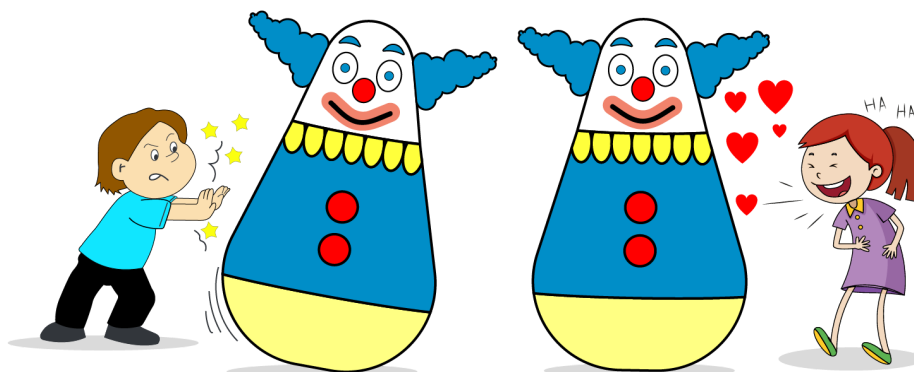
To ensure a child's healthy development of self-esteem the following steps are necessary:

- Attention and care are shown
- Abilities are praised
- Healthy behavior is encouraged
- Children should feel safe and independent
- Communication is encouraged with peers

G. Difficulties of Adjustments

While a child goes through middle childhood, there are bound to be many adjustments that a child has to experience. Some examples of adjustment periods are moving to a new town, a new school year, changes in family dynamics such as divorce, etc. There are also aggressive behaviors that come with periods of adjustment. Males seem to be more aggressive than females regarding physical aggression. Female children will usually mimic emotional manipulations that they experienced or observed. Male children tend to have physical aggression after observation. Freud proposed the **Frustration-Aggression Hypothesis**, which says that when someone attempts to obtain a goal and it is blocked, there will naturally be frustration.

Albert Bandura proposed Social Learning Theory. This differs from the behavioral theories that the social learning theory emphasizes, especially regarding the cognitive process of learning experiences. Aggression, according to the Social Learning Theory, is learned through observation. Remember the Bobo Doll Experiment that was mentioned in earlier chapters? Let's take a look back at this experiment. The Bobo Doll Experiment allowed two different groups of children to watch videos of other children playing with a bobo doll. The children who had watched the video with the children who were violent towards the doll and did not get punished then exhibited the same behavior when it was their turn to play with the dolls. The children who viewed the video of children being violent with the doll and actually getting punished for being violent with the doll ended up being reserved and did not want to be aggressive towards the doll.



H. Possible Conflicts in Middle Childhood

- **Social Phobias**
 - Some stem from the fear of leaving home and not being around their parents
 - These issues are more common in female children than in male children
 - The deeper issue is that it is separation anxiety from the child and both parents
- **Divorce**
 - There is a greater chance for destructive behavior such as hostility between parents
 - There are more conflicts that are between parents which will lead to children developing depression and anger
 - It is critical for parents to maintain care for their child between both living arrangements
 - Highly beneficial for children to continue having contact between both parents
- **Coping with Life**
 - Cognitive abilities are related to coping abilities
 - Children having support is very important to help cope with life
 - Forced to cope with stress can create children to develop psychological problems other than the stress already developed
 - Possibility of additional stresses may cause significant damage
- **Homelessness**
 - Statistics show that there are between 50,000 and 100,000 homeless children in the United States every night. Half of these children are of school age.
 - Children who are homeless tend to have fewer friends, more fears, and develop illnesses easier
 - Children who are homeless tend to be behind in academic achievement
 - 30 percent of these children develop clinical depression



Chapter 6: Review Questions

- 1. Which of the following is the educational approach that places special needs students in general education classrooms?**
 - a. Exclusion
 - b. Mainstreaming
 - c. Resource room utilization
 - d. Enrichment
- 2. Which one of the following options is considered a gender schema?**
 - a. Women who wear dresses
 - b. Women who have more mental disorders than men
 - c. Little boys wear blue clothing, and little girls wear pink clothing
 - d. A and C but not B" do not clearly represent gender schemas.
- 3. Who was known for developing the Theory of Multiple Intelligences?**
 - a. Gardner
 - b. Stern
 - c. Simon
 - d. Binet
- 4. Children who do not score well on an IQ test but understand people well and get along with different people have what kind of intelligence?**
 - a. Kinesthetic
 - b. Interpersonal
 - c. Intrapersonal
 - d. Naturalistic
- 5. What is the ability to evaluate a cognitive task that determines the best way to accomplish it?**
 - a. Concrete Operations
 - b. Metacognition
 - c. Reversibility
 - d. Classification
- 6. What is the ability to concentrate on relevant information and have the ability to ignore distractions called?**
 - a. Selective Attention
 - b. Centration
 - c. Formal Operations
 - d. Classification



7. What does myelination lead to in middle childhood?

- a. Greater short-term memory
- b. Greater long-term memory
- c. Better focus and attention
- d. A and B, but not C

8. What does the dimension of intelligence refer to as self-understanding?

- a. Interpersonal
- b. Naturalistic
- c. Philosophical
- d. Intrapersonal

9. What is the most dramatic shift in middle-childhood relationships?

- a. Breaking attachments with parents
- b. Developing an interest in the opposite sex
- c. Learning to identify with teachers
- d. Developing same-sex peer groups

10. What is childhood obesity caused by?

- a. Attitudes towards food
- b. Hereditary influences
- c. Lack of exercise
- d. All of the above



Chapter 7: Adolescence

Overview

In chapter 7, we will explore physical, cognitive, and social development. There will also be a discussion about conflicts and the concerns that may come up during this period of time. The adolescent framework is another layer for a strong foundation. This is needed to understand the development of the lifespan.

Learning Objectives:

At the end of this chapter, you should be able to:

- Describe the states of physical development in adolescence
- Explain Jean Piaget's Formal Operational Stage of Development
- Explain the principles of adolescent egocentrism proposed by Elkind
- Explain research about identity statuses and characteristics by Marica
- Recognize the influence of family, peers, and vocations of adolescents

A. Physical Development

During adolescence, there is a period of growth in a physical manner, as well as puberty, and maturing sexually. Between 8 and 14 years of age. Girls will start going through puberty typically two years earlier than boys do. Females between the ages of 9 and 16 will reach menarche, but it is important to know that genetics play a role in the age of menarche. Female sisters typically start having menstrual periods 13 months apart, and identical twins will reach menarche approximately 3 months apart.

Males and females will experience puberty differently. Puberty happens when hormones begin to change. One of the triggers of hormones changing and puberty beginning can be environmental changes. Changes in hormones and antibodies can make puberty start earlier. Here are some changes that puberty can bring in females and males.

- *Males*
 - o Testicles grow
 - o Penis grows
 - o Development of pubic hair
 - o Experiencing ejaculation
 - o Changing voice
 - o Development of facial hair
 - o Periods of growth in spurts
- *Females*
 - o Breasts develop
 - o Development of pubic hair
 - o First menstrual period
 - o Hips tend to widen
 - o Periods of growth in spurts



It is said that **growth spurts** are a sudden and rapid growth of the body. The first thing that usually “spurts” is the extremities, such as the arms and the legs. The torso's growth will follow, and the rest of the body will fall into place. External changes are not the only changes; there are also internal changes such as the growth of organs and how they can function. It is estimated that the approximate growth during adolescence is 3.5 inches for females and 4 inches for males.

B. Puberty Hormones

Due to puberty's varying ages, some males and females will be considered “early bloomers” while others may be considered “late bloomers.” When adolescents go through puberty either early or late, there is an increased chance that they may be bullied or ostracized by others because they are not changing like their friends or have changed sooner than their friends. Teasing will typically lead to poor body image problems, which can increase the chance of eating disorders to begin and psychiatric problems. Let’s take a look at some of the main hormones.

- **Testosterone:** Commonly found in males but is present in females. This helps produce sperm and is associated with sex drive, aggression, and even muscle development.
- **Estrogen:** This is common in females but can be present in males. This helps females produce eggs and is usually associated with libido, sexual interest, the reproductive cycle, and muscle development.

C. Health and Hazards of Adolescence

One thing that some find hard to believe is that adolescence is considered a healthy period. This is because the risk of childhood diseases decreases, and conditions and issues during old age will not usually occur during this age period. There are still some concerns regarding poor health and health hazards. Let’s look at some examples below.

Nutrition

- Need for additional vitamins such as supplements are needed due to the intense growth spurts during this age
- There is a need for increased calorie intake
- Not many adolescents will have the proper intake of fruits and vegetables
- Females more so than males will experience iron deficiency

Risky Behavior

- Some adolescents will indulge in risky behaviors, usually more so during this age than in any other stage of development
- Behaviors are done to separate themselves from their parents and gain better social status. During this time, adolescents attempt to learn how to stand alone
- Some risky behavior includes
 - Car accidents
 - Sexual promiscuity
 - Drug and alcohol abuse



- Disregard for parental direction

Drug Use

- o Statistics show that a lot of teenagers have experimented with drugs and/or alcohol before graduating from high school
- o Gateway drugs are
 - Tobacco
 - Marijuana
- o There is a higher chance of addiction occurring from the first use of drugs rather than the first consumption of alcohol.

Sexual Abuse

- o Children between the ages of 7 and 13 years old are statistically at a greater risk for sexual abuse
- o Sexual abuse is defined as any sexual activity, or activity which can be considered sexual, without consent from all involved
- o There are legal ages of consent, and in most states, it is usually between 14 years old and 16 years old
- o Sexual abuse is still considered abuse if consent is not given or if it has been revoked, even if consent is given
- o Sexual abusers are usually men that the child knows. It is said that females are usually abused more than males
- o There is no discrimination when it comes to sexual abuse. It can happen in general, regardless of race, gender, socioeconomic status, and ethnicities

D. Adolescent Cognition

Cognitive development will continue throughout adolescence. Selective attention will usually improve memory improvement and metacognition as well. **Metacognition** is when people become more aware of their thinking and memory. They start to identify what they know and don't know.

Jean Piaget believes that adolescents come in the **Formal Operational Thought** category. This is the last stage according to Piaget's cognitive development theory. During adolescence, adolescents will spend time hypothesizing the opinions of their peers or friends and will use these hypotheses as facts. David Elkind, a psychologist, believed that adolescents would exhibit such behaviors because of the inability to know the difference between unique and universal. Elkind also called the extension of adolescent egocentrism the **Invincibility Fallacy**.

Awareness of avoiding high-risk behaviors is a crucial aspect of adolescent development because exposure to such risks leads to the feeling that they are invincible and immune to harm.

Many adolescents believe that they are untouchable, that they are heroes, unique, or should be famous. With these thoughts comes an inflated sense of self, and while that may seem like a bad thing, it can be motivating too. During adolescence, teens believe that what they go through in life should be intriguing to others, and they get a sense that the "world is their stage." They believe that the rest of the world, big



or small, should be interested in their life. They consider the whole world as their “imaginary audience” and feel like everyone should care about everything that happens in their life.

E. Adolescent Sexual Activity

During this stage, some adolescents become sexually active. Statistics show that the age of becoming sexually active is dropping, meaning that younger ages are beginning to experiment with sexual activities. Since younger adolescents are starting to engage in sexual activities and do not truly have the education regarding the potential issues such as sexually transmitted diseases or infections and pregnancy arise. Some of the STDs and STIs that are possible are listed below.

- Syphilis
- Gonorrhea
- Herpes
- Chlamydia
- Human papillomavirus
- HIV/AIDS

Recent studies show that 80% of teenage mothers will remain unmarried, and they all eventually enter the workforce. In the 1960s, teenage mothers typically married first, then worried about having children, and usually became stay-at-home mothers. Poor choices in life are said to be caused by a lack of good judgment. The notion of Invincibility Fallacy is a cause of sexual activity.

Many schools are trying to steer away from teaching adolescents abstinence-only and beginning to teach them that they have choices but should protect themselves if they choose to become sexually active. Some educational institutions say that it is hard to assess how effective sex education programs are since there are a variety of cultures, different languages, and sexuality. Despite different cultures, languages, etc., there is one consensus: most teenagers are more willing to discuss sex than previous generations. However, the trend of engaging in sexual activities is kept private and personal, and when they feel it is time to share their opinions, they will.

F. Adolescent Morality

One of the leading researchers of moral development was a gentleman by the name of **Lawrence Kohlberg**. His research was based on moral dilemmas, and then those were used to classify different levels of moral reasoning in children aged 10 through 16. The question he posed was, “Why shouldn’t you steal from a store?” After asking this question, he looked at and scored the responses and then came up with three different levels of morality and 6 stages of moral reasoning.

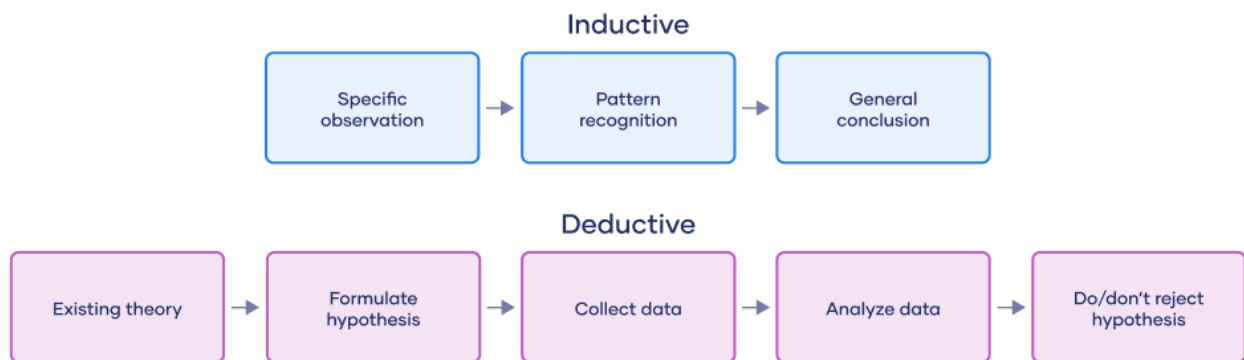
| Level | Definition | Stages |
|---|--|--|
| Level 1: Preconventional Morality | Understanding the difference between right and wrong; being determined by rewards and punishment | Stage 1: Punishment, knowing what led to the punishment means that it was wrong. |

| | | |
|---|--|---|
| | | Stage 2: Rewards, the right thing done is when rewards are given |
| Level 2: Conventional Morality | The view that others matter, Either avoiding the blame or attempting to seek approval | Step 3: When there are good intentions, one will conform to good behavior. Step 4: Being obedient to authority and understanding the importance of doing the necessary duty |
| Level 3: Post-Conventional Morality | This is an abstract notion of justice. The rights of others can override obedience to laws and rules | Stage 5: Knowing the difference between right and wrong (moral and legal rights). Sometimes it is found that rules can be broken or will be. Stage 6: Conscience by individuals and principles. It considers the views that may affect everyone due to a moral decision. |

These theories proposed by Kohlberg have been challenged several times. **Carol Gilligan** suggested the research conducted by Kohlberg was gender-biased. She thought this because he had only used male adolescents in the research that created these levels and stages in the research. Kohlberg responded by saying that females give moral weight to their relationships and tend not to see moral issues in black and white. This is due to the moral weight differences, and females will score lower on his tests.

Understanding the way people reason is important in understanding their development. We switch between inductive and deductive reasoning when going through the above stages.

Inductive vs. deductive reasoning



Deductive reasoning refers to the process of drawing conclusions from data. While in **inductive reasoning**, conclusions are drawn by going from a specific situation observed to accepting it as the general truth.

G. Adolescent Psychosocial Development

Erik Erikson believed that adolescents were in **the Identity vs. Role Confusion** stage of development. There have been conflicts where adolescents have gone through an identity crisis, and will act not like themselves. Usually, between the ages of 12 and 18, is when adolescents will try to steer away from their parents and try to find out what kind of person they as an individual want to become. If adolescents are able to combine their roles, then they will achieve a sense of identity. James Marcia, another influential psychologist in development, created 4 different identity statuses. Let's look at them below.

- **Identity Achievement**
 - This is when individuals find out that they are unique
 - This includes sexual identity, moral identity, political identity as well as vocational identity
- **Foreclosure**
 - The stage where premature identity forms
 - Acceptance of parental values and parental goals, not giving options any consideration
- **Identity Diffusion**
 - There is uncertainty and even confusion regarding one's identity
 - This may lead to apathetic behaviors
- **Moratorium**
 - There is a pause in the formation of identity
 - Most individuals will explore alternatives

| | | A person has committed to an identity | |
|--|-----|---|--|
| | | Yes | No |
| A person has explored identity options | Yes | Identity Achievement ▪ "I thought about it and I know what I should do" | Moratorium ▪ "I am thinking about what I should do" |
| | No | Foreclosure ▪ "I made the choice without thinking" | Identity Diffusion ▪ "I don't know and don't care about what I am doing in life" |

There are some other interesting aspects of exploring **cultural identity**. Many adolescents will begin learning about their culture or racial identities from their parents and wish to explore more in-depth about their culture and where they came from. Adolescents may take on different identities in different settings such as home and school. This will often lead to a bicultural identity and maybe a blending of personal cultures. Operating and thriving with multiple cultures helps create higher self-esteem and raises confidence. In early adolescence, prosocial behavior tends to decline but later recovers. Playing sports, coaching, and participating in clubs contribute to forming identity. As adults age, they tend to have more resources, leading to some becoming exceptionally prosocial.

H. Parenting and Peers

As previously discussed, many parenting styles never seem to keep a child from maturing and learning. Remember that adolescents with authoritative parents will be more psychologically healthy than adolescents with non-authoritative parents. Adolescents with authoritative parents also tend to experience positive psychosocial development.

During psychosocial development, adolescents are allowed to experience independence while receiving support from their parents. Adolescents who have authoritative parents will also not display risky behaviors.

Parents and other peers are an important source of information and have a lot of influence on adolescents. During the early part of adolescence, friendships typically are between same-gender individuals. As adolescents get older, they will begin befriending individuals of the opposite gender as they get older. Friendships have been placed into three categories; crowd, clique, and individual. Let's look at these below:

- **Crowd**
 - Inclusive
 - Usually, these types of friends hang out with people with mutual interests such as cheerleaders, football players, debate club members, band members, drama club members, etc.
- **Cliques**
 - Interpersonal relationships happen between these types of friends.
 - "Memberships" into cliques are often required to be included in crowd memberships
- **Individual**
 - This is the most intimate of the three groups and the most exclusive. Individuals may have to obtain a clique membership before being accepted to crowd groups.

I. Attribution Styles

When posed with a situation where you failed a test. You might ask yourself, "How did I fail this test?" Depending on your answer, you could say, "The professor just hates me," "I didn't sleep enough. I was tired the whole time!", "The work is just too hard" or even a more logical answer such as "I should've studied harder."

People attribute their successes and failures in many different ways. Our **locus of control** is focused on a different part in each of these statements. **Locus of control** states that our behavior is guided by external factors such as luck or fate and internal factors such as ability or effort.

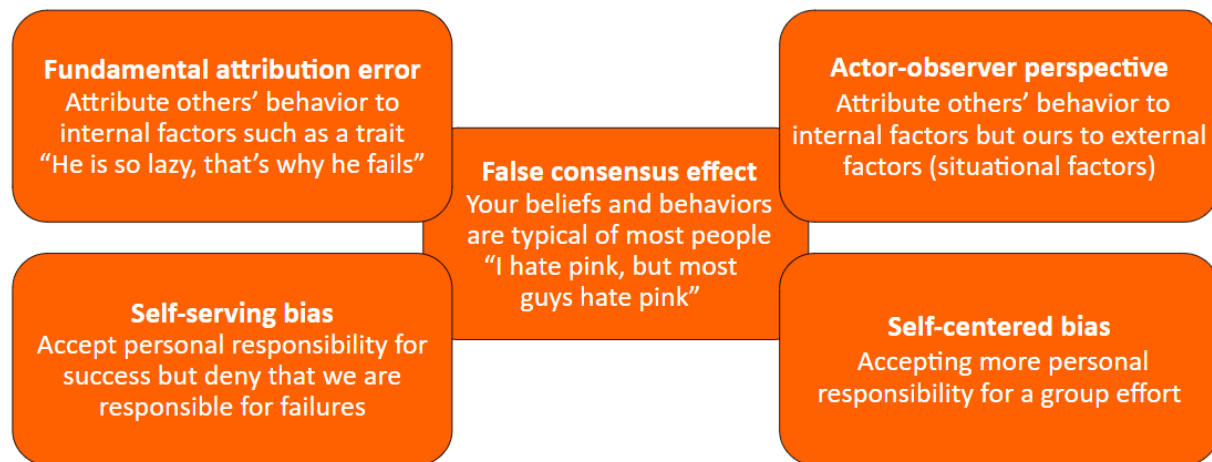
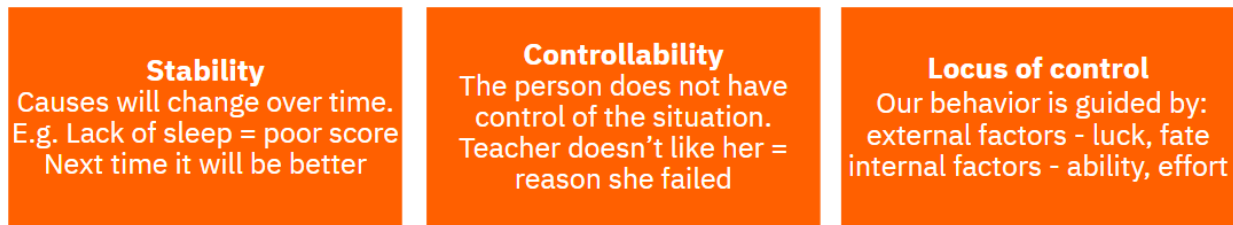
When saying, "The teacher hates me," - **controllability** comes into play when a person believes they do not have control over the situation and they purely failed because the teacher doesn't like them.

Where the lack of sleep is blamed - **stability** means that causes will change over time. A lack of sleep means you will get a poor score; however, next time will be better once you have some rest.

There are five different attribution styles we have to consider:

1. Fundamental attribution error - Attribute others' behavior to internal factors such as a trait. "He is so lazy; that is why he fails!"

2. Actor-observer perspective - Attribute others' behavior to internal factors but ours to external factors. "He failed because he is lazy. I failed because my teacher marked my test so strictly!"
3. Self-serving bias - Accept personal responsibility for success but deny that we are responsible for failures. "I worked really hard to earn that promotion, but I was so unlucky that I bumped my car on the way home."
4. False consensus effect - Your beliefs and behaviors are typical of most people. "I hate pink, but that's no surprise. Most guys hate pink"
5. Self-centered bias - Accepting more personal responsibility for a group effort. "I did all the difficult work in that project; they'd never finish without me."



J. Vocational Choices

In recent years, choosing a vocation has been challenging. More and more options are available to adolescents, and each one has a specific required skill set. Because jobs are becoming more specialized, schools are adjusting to help teach their students these skills. One of the differences between schools teaching a set of skills and those that don't is that not having these skills can hinder a student from beginning to work in their desired field once they finish school.

Social class in recent years has become one of the important roles when choosing vocations. Adolescents from higher social classes will typically choose careers in business, work in a professional office, etc. Adolescents on the lower side of the socioeconomic status may not have higher aspirations to become professionals in an office or a business. They may end up in service work such as fast food services, restaurants, and sometimes trade occupations.

K. Concerns and Conflicts of Adolescence

Just like in previous stages of development, conflicts may arise during this stage. Here are just a few concerns and conflicts that may arise during adolescence.

- **School Dropouts**
 - Most jobs require some kind of education. A college education, whether a high school diploma or a GED, is necessary. This can cause an issue if a person drops out of school.
 - Those who drop out are usually from lower socioeconomic families.
 - There is a higher chance of delinquency, criminal behavior, and drug/alcohol addiction if individuals drop out of school.

- **Juvenile Delinquency**
 - Individuals in their 20s are more likely to be arrested than in any other decade of their life.
 - Reaching out to those more likely to become a delinquent is essential, so it may deter the individuals from thinking about committing crimes. However, this type of preventative measure may not always work.
 - The chance of achieving positive things in the future may be affected if there is an early onset of delinquent behavior.

- **Suicide**
 - Adolescents' thoughts of suicide have been increasing.
 - Females on a worldwide scale are more likely to attempt suicide. Males are more likely to complete a suicide attempt.
 - Suicide victims are driven by significant adverse events happening in their lives.
 - Some of the signs and symptoms of suicide are
 - The giving away of personal possessions
 - Stop being around friends, family, and school
 - Talk about suicide and plans often
 - Sudden mood changes, meaning that a decision has been made
 - Recognizing signs and symptoms may help someone

L. Gender Schema Theory

As children age, they are often told what is appropriate for their gender and what is inappropriate. The idea that adolescents are taught about gender roles and expectations is only based on their surroundings and what they are exposed to. **Culture, media, parents, and teachers** all form part of this **gender schema theory**.

- **Culture and media**
 - What we see online can drive people to think about what they want out of life. There's a theory that when people watch videos on media platforms of these perfect men and women living their lives and never working, it leads them to feel that their success is purely because of how

beautiful they are. The need to maintain a certain level of lifestyle has led many people to behave in the same way and it is also a result of images from popular media.

- **Parents**
 - Gender gets influenced by parents to the most degree as parents will model their own gender expectations onto their children. This might be unintentional, but simply modeling the behavior can instill these ideas within their children. How a parent acts in a stressful situation, how they split the housework, show affection or even just how they treat their children, can all model what gender is seen as to adolescents.
- **Teachers**
 - In many cases, teachers treat girls and boys differently in class, which can further solidify the ideas of how female and male students should behave in class. Boys are expected to carry chairs, be slightly noisier, while girls are seen as harder workers, stay calmer and do neat work.

Kohlberg, however, had three terms he analyzed concerning gender and what you need to be aware of for this exam.

- **Gender Identity**
 - Samantha is only three years old and understands that she is female but does not link it to it being biological. She understands that boys and girls are different, she just isn't sure how they are different.
- **Gender Stability**
 - Samantha is now four. She starts to understand that biologically, she is female and that she will be biologically female for the rest of her life, and that males are different from her. She does not understand the concept of intersex or transgender yet.
- **Gender Consistency**
 - Samantha is now six. According to Kohlberg, she has constantly been figuring out that there are differences between males and females. She has now become aware of how girls should act and that she should act in ways that are acceptable for her gender.



Chapter 7: Review Questions

1. What is puberty?

- a. Marked by rapid physical growth and changes in the reproductive anatomy
- b. Triggered only by environment
- c. Occurs sooner for males than females
- d. Starts later in life than in previous years

2. What is sexual abuse?

- a. Any act of implicit or explicit, sexual nature has been completed or attempted without consent from all parties involved
- b. Situations where prevention was not attempted
- c. Commonly committed by males who know the victim
- d. Only occurs to a particular social class, gender, or race

3. What is the ability to propose a multitude of solutions to a problem and choose the most appropriate solution?

- a. Egocentrism
- b. Classification
- c. Hypothetico-deductive reasoning
- d. Inductive reasoning

4. Egocentric notions of adolescents who assume others are interested in their lives are called?

- a. Centration
- b. Formal Operational Thought
- c. Imaginary Audience
- d. Personal fable

5. What is the emphasis on rewards and punishments given for unacceptable behavior in regards to Kohlberg's research?

- a. Post-conventional Morality Level
- b. Pre-conventional Morality Level
- c. Law and Order Stage
- d. Conventional Morality Level

6. An adolescent begins questioning his faith as a Catholic, which has been his religion within his family. This adolescent has begun looking at other mainstream religions. What status would this adolescent be in, according to Marcia?

- a. Diffusion
- b. Moratorium
- c. Foreclosure
- d. Commitment



- 7. Which of the following parenting styles helps prevent adolescent children from experimenting with risky behavior?**
- a. Authoritarian
 - b. Permissive
 - c. Authoritative
 - d. Negligent
- 8. An adolescent is always told by his or her parents that they are going to the doctor. Since there has never been an option, there have never been any other alternate vocational options. What identity status would the adolescent be in?**
- a. Foreclosure
 - b. Moratorium
 - c. Achieved
 - d. Diffusion
- 9. Adolescents who are considered multicultural and develop multicultural identities usually?**
- a. Achieve a high social outcome
 - b. Have high self-esteem
 - c. Have low self-esteem
 - d. Both A and B
- 10. What did Kohlberg receive criticism for?**
- a. Only having male participants in his research
 - b. Not following the ethical procedures in his research
 - c. Viewed females differently and separately than males, in reference to moral development
 - d. Not considering gender-specific factors regarding moral reasoning,

Chapter 8: Early Adulthood

Overview

This chapter is designed to dive into early adulthood's physical, cognitive and social development. Even during this stage of life, there will still be conflicts and concerns, but they will differ from the previous stages discussed. This chapter will discuss key developmental milestones and the challenges that individuals may face.

Learning Objectives

At the end of this chapter, you should be able to:

- List the different stages of physical change in the early adulthood stage
- Understand sexual reproduction systems and the issues that come with infertility
- Explain post-formal and the dialectical thought process.
- Explain the influences of education
- Explain the impact of life events on cognitive development
- Explain concepts of
 - Intimacy
 - Friendship
 - Cohabitation
 - Marriage
 - Divorce
 - Parenthood
- Understand the different theoretical perspectives of early adulthood and psychosocial development
- Describe the importance of work, including
 - Work patterns
 - Workplace diversity
 - Dual-income families

A. Physical Development and Changes

We are now moving on from the younger years to the early '20s through to 40 years of age. This particular stage in life is considered the “prime of life” due to the physical performance being at its peak and can be maintained if physical activity is continued. If physical activity is maintained, there will be very few signs of aging during early adulthood. Usually, growth will stop between 15 and 30, and **senescence** will begin. This is the period where physical decline begins. There will also be a loss of strength and efficiency during this stage. Every person goes through various stages of aging, from the time they are 20 years old to when they are 40 years old. When an individual enters their 20s, there will be no more growth spurts, and a person’s hormones will start to calm down. A person will not become any taller, but a person’s muscles and fat storage will increase.

An individual's digestive, respiratory, and reproductive systems will function at optimal levels between their 20s and 40s. During this stage, health problems are rare, and physicians will usually just treat sports injuries and work with pregnant women. This isn't to say that health issues will not arise, such as colds, flu, etc., but it is rare for major health problems. Death during this stage is usually caused by accidents more than an illness-caused death.

During this stage of life, many people want to start families. Statistics share that there is an unfortunate rate of **infertility**. Approximately 15% of couples experience infertility, which is the inability to conceive easily. While many couples go through this unpleasant and difficult experience, there are medical infertility interventions such as in-vitro fertilization and artificial insemination by male donors.

Below are some of the causes of infertility.

- **Male Infertility**
 - Some males may experience a low sperm count or may have malformed sperm.
 - Age, childhood illnesses, prescription drug use, cigarette smoking, and stress are
 -
- **Female Infertility**
 - Age, childhood illnesses, prescription drug use, cigarette smoking, and stress are also causes of female infertility.
 - Weight of the mother: Being overweight or underweight can contribute to infertility.
 - Failing to ovulate (this is the most common cause of female infertility).
 - High acidity in the female's reproductive tract can destroy sperm.

B. Concerns and conflicts of Early Adulthood

There are many pressing issues regarding health and wellness, especially in early adulthood. There are many things that adults will face.

Below is a list of some concerns and conflicts that can occur in early adulthood.

- **Drug Abuse**
 - During the early adulthood stage, many adults will be heavy drug users
 - Adults will ingest any type of drug, without any regard to the amount or how often
 - Using drugs in a manner that can be detrimental physically
 - Drug addiction is defined as a condition of drug dependence
- **Dangerous Dieting**
 - Continuous dieting can be very dangerous and unhealthy
 - Crash diets usually involve a nutritional imbalance, a loss of energy and the possibility of becoming vulnerable to diseases
 - Dangerous dieting can result in adults becoming either seriously underweight or may develop other serious and deadly health problems
- **Eating Disorders**
 - Anorexia is when there is a restricted number of calories that are being taken in through a regular diet. This will take it to the point of emaciation or starvation



- o Bulimia is when someone compulsively eats and then purges by making themselves vomit or using laxatives
- o Freud’s suggestion about anorexia is that it is a subconscious manifestation against nutrition. This is part of his regression theory
- o Media outlets suggest that there are unrealistic weight expectations for individuals to emulate. This is part of the Cultural Image Theory
- o Control theory is when someone has a lack of control in their life and will overeat
- o Younger adults are affected by eating disorders more than those who are of a higher socioeconomic status
- **Death**
 - o Death is not discriminatory to race, gender or culture
 - o Types of deaths include
 - Accidents
 - Homicides
 - Suicides
 - o Some studies have suggested that males are more than likely to die during early adulthood than females are

C. Cognitive Development in Early Adulthood

Physical changes begin slowing down, while cognitive changes will increase. Several aspects will pick up the pace. Aspects such as the storage of knowledge, the speed of cognition, thoughts, and information processing efficiency will fasten. Adults will begin to think about more practical ways to handle issues, be integrative, and find resourceful ways of dealing with problems.

Postformal thought is known as less abstract than formal thought. During the early stages of adulthood, a person starts using reasoning skills, which helps the individual focus better on the ability to problem-solve real-life problems. During post-informal thought, a person will transition from clear decisions of formal thought to the ability to recognize gray areas when faced with a problem.

Three main characteristics help make up Postformal Thought. Let’s look at these.

- **Relativism:** This typically refers to understanding one’s perspective and that it is only considered one of many potentially valid views of reality. Knowledge is not considered absolute and is not fixed.
- **Acceptance of Contradiction:** This is the implication of understanding that reality will embrace inconsistencies. Someone can love and be angry with someone at the same time.
- **Integration:** This is the deep, refined thought process through which individuals gain the capacity to integrate and synthesize conflicting ideas or views. They will now view them more in a coherent whole. The integration will usually advance in individuals further beyond the earlier stages of adulthood. This also happens when individuals have to choose between one side and the other.

Dialectical thought is the process of understanding and solving the positives and negatives of a certain topic.

Dialectical thought usually involves the continuous thought of integration, or the formation of beliefs, the formation of antithesis, and the creative synthesis to conjoin all of the components that make up a situation to come up with a conclusion.

Some believe that components of cognitive growth during early adulthood are caused by enrollment in post-secondary educational institutions, better known as **higher education**. In recent years, it has been said that gender ratios have flipped and that approximately 55% of college students are female. Also, in recent years, enrollment statistics show that there is also an increase in Hispanic enrollment. Other races that have increased enrollment rates are African-Americans, Asiatics, and several others. Statistics show that approximately 20% of U.S. residents have a bachelor's degree. Higher education is more than just education through academic materials. It encourages people to flex their thinking, learn tolerance, and have individuals gain control over their lives. Certain skills will increase in development regardless of the form of higher education. Skills such as verbal skills, reading skills, math, and even critical thinking will increase and develop.

Life events have been known to help an individual become more mature in a cognitive nature. Maturity develops a lot of the time after parenthood begins. Other life events may trigger cognitive development. Other events include religious experiences, gaining employment, and starting a new relationship, which encourages individualistic maturation. It is said that no matter the event that happens in life, the common thing is that individuals are forced to look at their new life from a new perspective, which again will promote maturation.

D. Psychosocial Development in Early Adulthood

Two foundational themes drive adult development, making individuals feel as if they need to be connected to other human beings and feel independent. There is an emotional need to be able to support themselves and support others. Maslow proposed the idea that there was an individual need to belong and an individual need to feel loved. These are the primary forces that are behind psychosocial development.

Erik Erikson said that young adults are usually in the **Intimacy versus Isolation Stage**. Adults can seek other individuals during this stage and share their lives with them, either with or without a commitment. Some may fear and, unfortunately, experience isolation. Some individuals believe that intimacy refers to sexual encounters, but this is not the case, as there can be intimacy between partners in a general sense. For example, individuals develop friendships, romantic partners, husbands, wives, or parental friendships. **Daniel Levinson** proposed another view of this. Not focusing on the crisis but the **transition** between one role to another and the expectations of each role. Usually, between the ages of 17 and 22, the adult transition is adolescents leaving their family home and beginning to make their own adult decisions. Some individuals may want to settle down and start a family. This triggers the feeling of motivation and creates a general timeline or, in other words, an action plan to achieve such goals. Action plans might look like acquiring a stable job to save for your family.

Roger Gould researched the changes that occur in the early adulthood stage. His research's primary focus was on men and women between 16 and 60 years. After conducting his research, it was found that when adults aged, grew, and developed; there was a period where adults attempted to become more tolerant of themselves. Early adulthood is viewed as the time when there is great instability compared to middle and later adulthood. Roger Gould believed this suggested a correlation between mental disorders and early adulthood. Some significant events and intimacy categories in early adulthood are listed below:

Friendship

- Developing friendships is said to be relatively simple during early adulthood
- Live and social events such as going to college, religious activities and sporting events, or playing sports help people meet others and develop friendships
- Male friendships are typically based on shared activities
- Females tend to want to develop emotional friendships
- Friendships that are of the cross-gender nature, will help individuals learn more about opposite genders
- Friendships continue until marriage and throughout marriages

● **Mate Selection (Theories)**

- **Theory of Propinquity:** Individuals will usually marry someone geographically close.
- **Theory of Homogamy:** Individuals will usually marry someone of similar demographics.
- **Complementary Needs Theory:** Individuals will usually marry someone who has opposite qualities, or lack of qualities.
- **Exchange Theory:** This mate selection is part of a rational economic theory that has costs and rewards.

● **Cohabitation**

- Statistics show that approximately 40% of individuals in the United States will live together prior to getting married.
- Statistics suggest that cohabitation does not strengthen a marriage. Cohabitants are considered to be liberal and accept the idea of divorce. There is also a lower commitment level which can be implied by cohabitation.

● **Marriage**

- History suggests that the United States has the highest rate of unmarried adults
- Statistics show that marriage begins later but is accepted as a whole
- In the United States, the median age for marriage is
 - 24 years of age for males
 - 22 years of age for females
- Successful marriage factors include
 - Marrying at an older age
 - Sharing similar backgrounds
 - Sharing similar values



- Sharing similar interests
- Sharing a similar perception on the equality of marriage
- **John Gottman** believes that there should be at least five positive comments for every negative comment made in a marriage. He also believes that conflicts can be beneficial if it is kept within boundaries of mutual respect
- **Hostile/Engaging and Hostile/Detached Couples**
 - There are high levels of negative comments
 - There is no balance between humor and affection which can lead to couples withdrawing from each other
- **Types of Communication**
 - **Validating** – Being respectful and listening
 - **Avoidant** – Conflict minimization
 - **Volatile** – Frequent arguments that are balanced by humor and affection
- **Parenthood**
 - Erik Erikson had used the term **generativity** to describe parenthood
 - Adoptive parents may experience the same challenges as a biological parent
 - Blended couples are becoming more common
 - Couples making the decision not to have children is also becoming very common
- **Types of Love *Stenberg's Triangular Theory of Love***

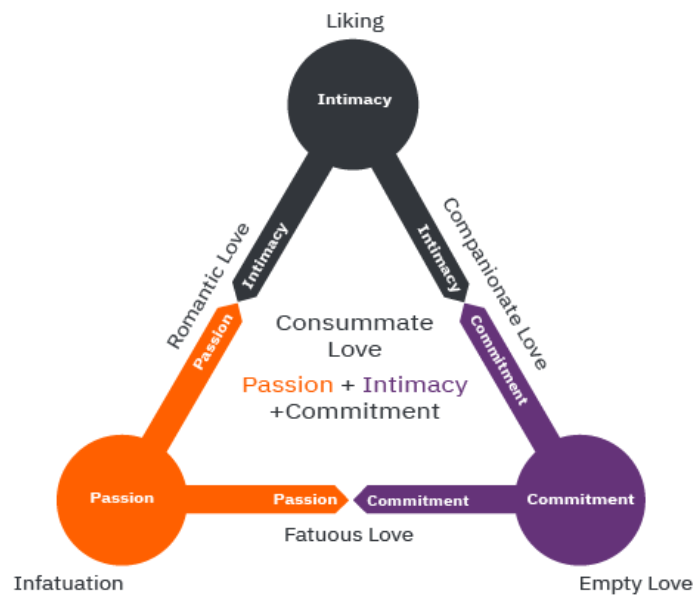
There are three types of love

- **Passion:** Sexual attraction and “being in love”
- **Intimacy:** Attachment, closeness, and connectedness
- **Commitment:** Shared achievements and plans

Each one of these types of love, in different combinations typically yield a total of 7 years of love.

- **Divorce**
 - Out of the entire world, the United States has the highest divorce rate of any of the industrialized countries
 - Statistics show that at least 50% of marriages end in divorce
 - In the last 50 years, no-fault divorce laws have increased

- **Spousal Abuse**
 - Spousal abuse or family domestic abuse has become more common in recent years
 - At least 12% of spouses in the United States will either push, grab, or shove one another



- o Here are 2 common ways that couples commit spousal abuse/violence
 - Both partners will engage in violent outbursts such as yelling or physically harming one another
 - Both men and women are capable of initiating violence
- o Patriarchal Terrorism
 - This is where men typically dominate the relationship
 - Women are usually degraded and isolated, and/or punished
 - This spousal abuse usually leads to battered women syndrome
 - The victim of spousal abuse is often blamed for the abuse inflicted upon them

Self Concept

When asking yourself “Who are you?” there are three selves to consider:

1. Individual self - Our self-concept, or what we think of ourselves and who we are
2. Relational self - The roles and relationships with others, such as being a father or sister
3. Collective self - The social grounds we identify with, such as a religion or occupation.

Five terms to be familiar with in self-concept are:

- congruence - when self-concept lines up with reality
- incongruence - when self-concept does not line up with reality
- self-esteem - self-worth, or how we value and see ourselves
- ideal self - an idealized version a person creates of what was learned from life experiences.
- self-concept - a set of opinions, abilities, and thoughts that we use to categorize ourselves.

E. Vocational Achievement in Early Adulthood

In early adulthood, young adults need to find and maintain jobs and careers. Once this occurs, then there is a sense of purpose, a sense of independence. When an individual is either unemployed or loses their job, it can cause unimaginable stress, leading to more instability during early adulthood. Recent studies show that there have been many changes in the workplace. The population of working individuals has moved from those in manufacturing over to jobs in service. The workforce has become so much more diversified in recent years, with more races having representation and having more percentages in the workforce. The majority of workers are males, but females account for 46% of the workforce.

Since there have been so many influential changes, it is implied that young adults have created this change. It is the notion that when young adults enter the workforce, they will remain at that job for life. One important thing is to be flexible, as this is key for moving up in the workplace and finding the proper position that the person feels will satisfy their needs. Individuals move in and out of the workforce daily and do this for many reasons. Some examples are couples starting families, couples going through a divorce, some people moving, etc. Some families are forced to become dual-income families due to having children or paying more bills to survive.

Mentoring/mentee relationships can especially form during this period. It described the relationship between an experienced person and a learner.

| Vocabulary | Definition |
|---------------------|--|
| Accompanying | Both the participant and mentor taking part in the learning process. Learning is not one sided |
| Sowing | Initially the concept might be hard to understand but as mentoring continues the message will be understood |
| Catalyzing | When the learning changes or increases for the participant. In this stage the mentor will acknowledge that the participant is ready for change or increase in complexity |
| Showing | The mentor makes something more understandable to the participant by showing an example or sharing their own feelings |
| Harvesting | The mentor makes the participant aware of what they have learned similar to a summary |

F. Levinson's Adult Development Theory

The Adult Development Theory explains changes that occur during adulthood. These changes are split up into significant stages of physical, cognitive, and social growth. As they age, adults change their perspectives, societal place, and sense of self.

Daniel Levinson believed that adults have a certain life structure and progress through phases of stability and transition. Levinson's development model is based on research strictly on men. Levinson identified specific stages during adult development in his theory. These stages include:

| Daniel Levinson's Adult Development Theory | | | |
|--|----------------|--|----------------|
| Period of Life Structure | Age (years) | Life Tasks to be Accomplished | Structure Type |
| Early Adulthood | (17-22) | To test one's preferences of adulthood. To begin thinking about one's place in the world separate from the institutions of youth (e.g. parents, school). | Transitional |
| Entering the Adult World | (22-28) | To develop a sense of personal identity in the world (independence). Solidify career goals (work), begin forming intimate relationships (dating/ marriage/family), seek new communities (religious/hobbies/sports). | Stable |
| Thirties Transition | (29-33) | To evaluate/reflect on the accomplishments of one's 20s, reassess choices and adjust the life structure currently adopted. | Transitional |
| Settling Down | (34-39) | To strive toward achieving personal and professional goals. *To reinvest one's time into work, family, and community. | Stable |
| Mid-Life Transition | (40-45) | To review life structure adopted in the 30's. This can lead to sudden changes and vocalization of past regrets. Sudden realization of mortality leads to a cognitive shift and alterations of the 'meaning/purpose of life'. | Transitional |

| | | | |
|---|---------------------------------------|---|-----------------------------|
| Entering middle Adulthood | (45–50) | Depending on the reflective period of the previous stage, people will make, commit and act on new ideas/outlooks. | Stable |
| Fifties Transition & Culmination of Middle Adulthood | (51-55) – (56-60) | To raise questions about life structure previously adopted – To answer questions previously raised and adjusted to life choices | Transitional – Stable |
| Late Adulthood | (60+) | Ages 60 to 85 are broken up into two periods, the stable period and the transitional period. The latter include giving up one's formal authority or power (retiring from work). | Transitional |

Chapter 8: Review Questions

- 1. What is it called when there is a state of physical decline during early adulthood?**
 - a. Disability
 - b. Senescence
 - c. Impairment
 - d. Stagnation
- 2. What is the first stage of dialectical thinking?**
 - a. Thesis
 - b. Antithesis
 - c. Creative synthesis
 - d. All of the above
- 3. What were the terms for guiding the next generation (Erik Erikson's Terms)?**
 - a. Intimacy
 - b. Stagnation
 - c. Generativity
 - d. Isolation
- 4. 'Early childhood roles' are what?**
 - a. Are changing more quickly than in adolescence
 - b. Are more stressful than in adolescence
 - c. Are easier to perform due to better physical health
 - d. Both A and B
- 5. Which of the following answers is NOT one of Sternberg's three main dimensions of love?**
 - a. Commitment
 - b. Passion
 - c. Infatuation
 - d. Intimacy
- 6. Which of the following theories regards eating disorders and emphasizes unrealistic cultural expectations of being thin?**
 - a. Cultural Image Theory
 - b. Regression Theory
 - c. Control Theory
 - d. None of the above
- 7. What is part of a post-secondary college education?**
 - a. It reduces career aspirations
 - b. It reduces a feeling of control
 - c. It increases tolerance
 - d. All of the above



- 8. Which of the following theories of mate selection indicated the tendency to marry someone who was in their geographical proximity?**
- a. Homogamy
 - b. Propinquity
 - c. Exchange
 - d. Complementary Needs
- 9. What do studies indicate in relation to cohabitation?**
- a. Strengthens marriage
 - b. Does not strengthen marriage
 - c. Increases spousal abuse
 - d. Is more popular with women than men
- 10. What was emphasized according to Gottman's research on marriage?**
- a. Not having conflict
 - b. Keeping conflict respectful
 - c. Maintaining a 5:1 ratio of positive to negative comments?
 - d. Both B and C



Chapter 9: Middle Adulthood

Overview

Let's now move on to middle adulthood. In this chapter, we will explore individuals' physical, cognitive, and social development during this stage of life. We will also explore the emotional aspects of middle adulthood. There are not many concerns or conflicts during this particular stage. Social dynamics outside of the family tend to play less of an influential role than normal family social dynamics.

Learning Objectives

At the end of this chapter, you should be able to:

- Describe the physical changes during middle adulthood. This includes sexual and reproductive changes
- Understand what kind of impact lifestyle has on middle adulthood
- Compare and contrast crystallized intelligence and fluid intelligence
- Recognize the five stable personality traits (Also known as the Big Five)
- Explain family dynamics, marriage, divorce, etc.
- Describe work-related issues that occur during the middle adulthood stage of life

A. Physical Development in Middle Adulthood

Usually after an individual turns 40, then they will see visible signs of aging. Some of the things that someone may notice when they are aging are

- Development of gray hair
- Developing thin hair
- Discovering wrinkles
- Changes in bone density
- Changes in body shape.

When it comes to the change in bone density, this is where people assume that they are shrinking since their bones are losing strength. The intercostal discs of the vertebrae begin to lose elasticity. Within the United States, a good portion of the population will become overweight later in life. Females and males go through a decline when increasing in age. Let's take a look at some of the body declines that different human body systems go through.

- Hearing
 - o Things that affect hearing are sex, genes, and age
 - o Women usually start losing their hearing around the age of 45-50
 - o Men start losing their hearing around the age of 30
 - o In hearing loss, the range of loss will vary, and some will lose the ability to hear higher frequencies before losing the ability to hear lower frequencies
- Vision
 - o The ability to focus on things that are far away, decreases with age.
 - o Vision loss is more related to genetics rather than age

- o If a person requires glasses prior to the age of 20, then they are probably nearsighted
- o **Astigmatism** is the term used to describe the lack of elasticity of the lens and will more than likely occur as a person ages.
- o **Presbyopia** is the term used for age-related changes
- o **Glaucoma** is defined as the increased pressure on the inside of the eye. This is more common for those 40 years of age or older
 - There is an increased pressure that will squeeze the optic nerve, which could lead to blindness. However, this condition can be treated with medications
- o **Cataracts** are defined as the cloudy lenses, which are considered to be not much of an issue since they can be corrected by having surgery
- Body System Changes
 - o Cardiovascular systems, as well as the digestive system, will continue to decline
 - o The immune system will begin declining and will begin attacking itself.
- Lifestyle and Nutrition Factors
 - o Statistics show that 50% of deaths are attributed to lifestyle choices and not due to age
 - o Statistics tell us that heart disease and cancer are considered to be the leading causes of death in the United States
 - o Around the age of 40 is when some individuals depend on alcohol. This is ubiquitous
 - o Smoking cigarettes is known for its contribution to developing disease and death. Smoking usually contributes to lung cancer
 - o Excessive fat is a major contributor to heart disease
 - o Not eating or taking enough fiber increases the chances of colon cancer
 - o In the United States, over 40% of individuals are overweight and considered obese
 - o Getting exercise can help decrease the chance of serious health issues, and even helps enhance cognition
- Variations in Health Behaviors Between Men and Women
 - o Males have a higher mortality rate than women during middle adulthood
 - o Males are at a greater risk to die of any cause
 - o Males are also at great risk to die from heart disease
 - o Women are known for having higher disease rates than men who are of the same age
 - o Women are known for having higher disability rates
 - o Cancer is known as being an equal risk for both males and females. The only exception is women are more at risk for reproductive cancers
- Reproductive System in Women
 - o Women usually begin going through menopause between the ages of 42 and 58.
 - o Menopause is defined as the cessation of menstruation and where there is a drop of estrogen
 - o Some women go through **perimenopause**. This happens before actual menopause
 - o **Climacteric** is defined as the decrease in infertility that occurs with age
 - o Female climacteric symptoms are usually shorter, there are more irregular periods, and women go through hot flashes, and cold sweats
 - o **Hormone Replacement Therapy**
 - Can be beneficial for those who suffer from a loss of hormones

- Does increase the chance of developing breast cancer as well as other illnesses
- Reproductive System in Men
 - o Biologically, men do not go through menopause
 - o **Male climacteric** usually involves lower testosterone production, develop a decline in infertility, as well as developing erectile dysfunctions
 - o There is a decrease in the sperm production

B. Cognitive Development in Middle Adulthood

Information processing during the middle adulthood stage can be maintained by life experiences. It also can be enhanced by life experiences. Recent years have brought a new thought about what age information processing peaked. Some believe that information processing and intelligence peaked at 21 years of age. During this stage, intelligence and information processing will continue to increase.

There are five stages of social information processing that contribute to intelligence.

Stage 1 - Encoding

- o When a person is in a situation, they first encode different information so that they have information to interpret. While I might see a bunch of people laughing when I approach them, a friend of mine walks with me.

Stage 2 - Mental Representations

- o Once we notice these cues and focus on them, we give them meaning through the way we interpret them. I might interpret their laughter as mocking as they might've just said something about my appearance. And my friend might see it as a friendly environment where we would be welcomed.

Stage 3 - Response Accessing

- o This response is purely focused on physical responses. A faster heartbeat, shaking, relaxed or contracted muscles. All of these are physical responses, and they may be more prominent depending on whether you are accessing the situation as negative or positive.

Stage 4 - Evaluation

- o Before any action is taken, we then evaluate whether our actions are warranted. We may approach the group and see whether the response is positive or negative before we respond in any manner.

Stage 5 - Enactment

- o An action is chosen and thus we have enactment. Laughing at a joke they may have been focused on, or responding negatively when the joke was aimed at you, are both examples of enactment.

There are three different types of intelligence. Let us look at them below.

- Crystallized Intelligence: This involves the facts gathered, and the information will last through the middle adulthood stage
- Fluid Intelligence: This involves having to reason, make decisions, memory skills, processing speed, and think abstractly. Usually, around the age of 30 is when fluid intelligence begins to decline, and there will be a slower cognitive reaction time
- Practical Intelligence: This involves determining behavior and learning conflict resolution capacity and how to problem-solve. This is usually created from fluid and crystallized intelligence.

There are 4 types of intelligence theories. Each one of these has a specific neurological network.

- General Intelligence
 - Suggested by Charles Spearman
 - He thought that there should be basic analytic reasoning
- Multiple Intelligence
 - Suggested by Howard Gardner
 - There was a theory that involved several bits of intelligence
 - Linguistic
 - Logical/Mathematical
 - Musical
 - Spatial
 - Body/Kinesthetic
 - Interpersonal
 - Intrapersonal
 - Naturalistic
 - Philosophical
- Triarchic Intelligence
 - Suggested by Sternberg
 - Believed in 3 different intelligences
 - Analytic
 - Creative
 - Practical
- Expert Versus Novices
 - Experts: These are more experienced individuals who are intuitive and will typically rely on knowledge that has accrued
 - Novice: These are individuals that rely more on procedures

C. Psychosocial Development

Erik Erikson believed that somewhere during the middle adulthood stage that individuals are placed in the Generativity vs. Stagnation Phase. Usually, middle adulthood is where society recognizes individuals and categorizes them as being in the midlife period. During the generativity vs. stagnation phase, adults attempt to be productive at their jobs and take care of their children if they have any. When there is a notion of leaving something for future generations, there is the possibility of overriding that thought.

Erikson believed that without having a feeling of generativity, adults will have an empty feeling and that their life has not had any purpose or stagnated.

During middle adulthood, there are plenty of changes that occur. One of the main changes is that one must balance or even rebalance a career with a family (if necessary). Some may look at their marriage and decide if it is still worth being married and if everything is working out. Some may begin going through what others call a midlife crisis. Theorists Levinson and Erikson believed that middle adulthood was a trying stage of development. So many rapid changes could lead an individual to experience a crisis.

One thing that seems to be consistent throughout life is personality. Researchers focused on personality studies have come up with the idea that there are 5 groups of traits that are usually the most stable. These are considered the “**Big Five.**” Characteristics included in the Big Five are extroversion, agreeableness, conscientiousness, neuroticism, and being open to new ideas. Researchers note that there are two notable changes to an individual’s personality. One change is that an individual will typically become more generative. Another change is those gender roles will become more malleable, which allows the male and female genders to explore other gender roles

Research has been performed regarding personality types. This research has created three different types of classification. Let’s look at these below.

Type A: Type A individuals will usually be more aggressive, perfectionists, and driven in higher pressure situations. Usually, type-A personalities will experience higher stress. Higher stress may contribute to future issues with blood pressure.

Type B: Type B individuals are usually not as competitive and are typically calmer than those who are Type A personalities.

Type C: Type C individuals will usually keep negative emotions within them. Type C personalities are also at a higher risk for developing cancer later in life.

D. Social Dynamics

Middle adulthood is said to be an important age group. This is due to the connection between early adulthood and late adulthood generations. This role brings joy and stress, and this stage of life is considered the sandwich generation. This is due to multi-generations caring for ailing parents and their own children. Children typically become more independent during this age because parents usually have to reorganize their thinking toward their own children. Priorities are looked over in attempts to escape depression which is a significant change, especially during this age. Another issue that may arise is that children may come back home to live, especially if children endure financial strains. When children return home, parents typically have to organize their lives all over again. During this age, a few events are considered to be quite significant.

- **Marriage and Intimate Relationships**
 - Most married adults throughout middle-age usually are happily married
 - When it comes to victims of heterosexual violence, 20% are female, and 3% are men
 - Heterosexual violence occurs due to
 - Male dominance
 - Drugs
 - Alcohol
 - Low impulse control
 - Low self-esteem
 - Victims of heterosexual abuse usually are scared to leave the relationship
 - If divorce occurs, couples may find it a bit more difficult in the middle adulthood stage

- **Gender role changes**
 - Men and women experience changes in the middle age differently
 - A **mid-life crisis** refers to the **struggle** people face with their own morality - realizing that they are aging.
- Men's crises can be centered on their attractiveness to females and masculinity.
- Women's identity can be tied to being a mother or wife. Children leaving the house could cause a crisis to be experienced
 - **David Gutmann** proposed a theory called **gender crossover**, describing how gender roles are crossed during middle age. If a man is married to a woman with a gentle personality, he may become more gentle as he ages, while his wife might start taking more risks and be bolder.

- **Career Considerations**

There are 2 ways that careers can be evaluated

 - **Extrinsically Reward and Motivation:** This is where the money and salary come into play. Those who work usually rely on an extrinsic reward and may feel burnt-out or alienated at their job
 - **Intrinsically Reward and Motivation:** There is a personal satisfaction from working. Individuals who seek an intrinsic reward are happy with the work they are performing
- Changes in careers can happen due to physical illnesses or mental disabilities.
- With technological advances, this can cause technology to take over human positions and push humans out of the job market
- Women in their middle ages might find themselves at the glass ceiling, where women and other minorities struggle to move into roles of upper management.
- **Burnout** affects people in this age group when people feel dissatisfied, tired, or frustrated around their job. This is due to stress, responsibility, long working hours, and social problems at work and home.
- **Grand Parenting**
 - Grand parenting usually begins during middle adulthood
 - **Bernice Neugarten** proposed 3 forms of grandparenting
 - **Remote:** Distant Parenting, but parenting is an honor, and obedience occurs

- **Involved:** Parenting where the parent is involved in the daily life of their child(ren). Involved parents may live with the child if parents are divorced
- **Compassionate:** Parenting is independent. The relationship with the child is friendly and will usually live separately from the child

E. Stages of Career Development

Donald **Super's career development theory** centers around **self-concept** development. He extended Ginzberg's work on life and career development stages, and included different sub-stages.

Stages of Development - 1. *Growth*, 2. *Exploration*, 3. *Establishment*, 4. *Maintenance* and 5. *Decline*.

Lifestyle Factors - Personal, Environmental and Situational.

Life Roles - child, student, friend, worker, spouse, parent/homemaker, leisurite, citizen.

Let's look at Super's Stages in more detail:

Stage 1: Growth

- Fantasy (4-10 years old) - Building an understanding of how the world works through observations of events and people.
- Interest (11-12 years old) - Developing personalities and certain interests in life that could lead to a career field.
- Capacity (13-14 years old) - Learning and experiencing skills or taking in knowledge of certain activities that can be used in a future career.

Stage 2: Exploration

- Tentative (15-17 years old) - Trying out either summer or part-time jobs to build up some work experience.
- Crystallization of preference (18-21 years old) - Working jobs or internships in a more long-term field aligned with interests.
- Specifying a vocational preference (early 20's) - A person begins to figure out what they may be good at or has a passion for and wants to pursue longer-term.

Stage 3: Establishment

- Trial and stabilization (25-30 years old) - Experiences and knowledge gained during the exploration stage are used in this phase to solidify career and life choices or to make adjustments.
- Advancement (30-40 years old) - Most people are settling into their careers and lifestyles at this phase. Earning potentials are usually the highest during this period.

Stage 4: Maintenance

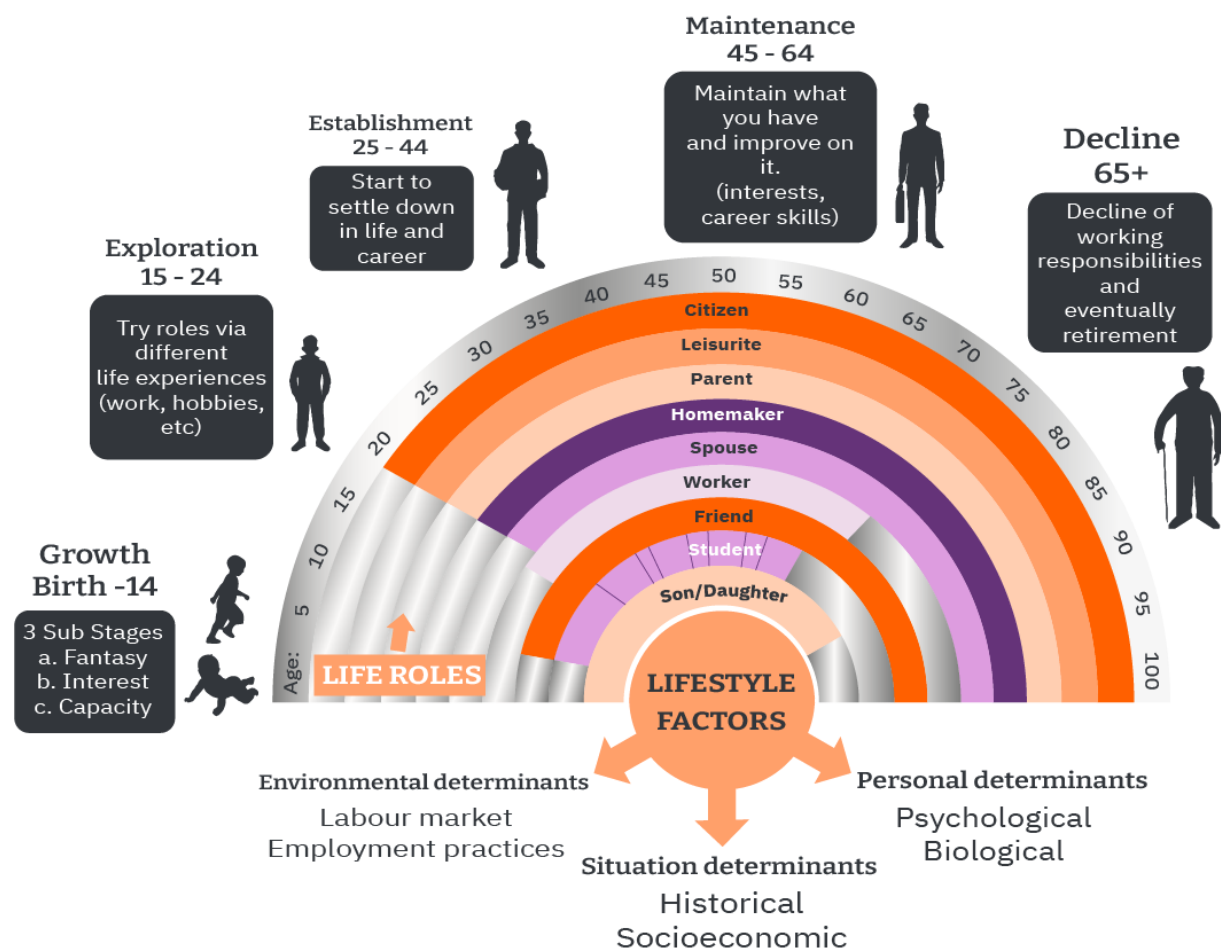
- This can be a career or another activity they have done for a long time, have developed skills, and enjoy doing.



- The maintenance stage also emphasizes the continuous adjustment and improvement of one's status. This can take the form of someone returning to school to help advance their careers or seeking promotion in their career because of their already enhanced skills.

Stage 5: Decline

- This stage sees individuals having a reduced output in work, effort, energy etc
- Individuals come to terms with their impending retirement and the major changes it will bring. As they readjust, their life structure shifts to include these changes.
- For example, they recognize that their career is over and see that they will now have more time to spend with family as well as pursue hobbies and other interests.



Chapter 9: Review Questions

- 1. The transitional period during which a woman's reproductive capacity ends and ovulation stops is referred to as...**
 - a. Climacteric
 - b. Menopause
 - c. Mid-life Crisis
 - d. Hormonal Cycle
- 2. Which of the following is true regarding middle adulthood in women?**
 - a. Women have higher mortality rates
 - b. Women have higher morbidity rates
 - c. Women have higher disability rates
 - d. Both B and C
- 3. What is the type of intelligence that consists of accumulated facts called?**
 - a. Fluid Intelligence
 - b. Practical Intelligence
 - c. Crystallized Intelligence
 - d. Multiple Intelligence
- 4. "Remote grandparents" are considered to be?**
 - a. Distant but honored
 - b. Active in the daily life of their grandchildren
 - c. Independent but still involved in their grandchildren's lives
 - d. Ones who live in the same house as their grandchildren
- 5. Which one of Erik Erikson's Stages of Psychosocial Development are individuals in the middle adulthood stage a part of?**
 - a. Intimacy vs. Isolation
 - b. Integrity vs. Despair
 - c. Industry vs. Inferiority
 - d. Generativity vs. Stagnation
- 6. Of the following options, which one is a characteristic of Practical Intelligence?**
 - a. Focuses on daily problems
 - b. Increases throughout life
 - c. Defines behavior
 - d. All of the above
- 7. What are the five consistent traits of personality called?**
 - a. The Big Five
 - b. Gender Roles
 - c. Type A
 - d. Type B



- 8. What does the “sandwich generation” refer to?**
- a. Adults who care for their parents and their children simultaneously
 - b. Adults who like adults of later adulthood to adults of early adulthood
 - c. Adults who are undergoing significant life changes with their roles and responsibilities
 - d. All of the above
- 9. Of the following answers, which one describes those with a Type B personality?**
- a. More likely to have an increased risk of high blood pressure
 - b. More likely to be men than women
 - c. Have a higher risk of cancer
 - d. Are associated with calm individuals
- 10. Which one of the following choices is considered a common cause of domestic abuse?**
- a. Male-dominated cultural ideas
 - b. Alcohol
 - c. Drug problems
 - d. All of the above



Chapter 10: Late Adulthood

Overview

Welcome to chapter 10. This chapter will explore physical, cognitive, and social development in late adulthood. There will also be information regarding different conflicts and concerns that may occur during this stage. Also discussed are key developmental milestones and challenges that arise in this stage.

Learning Objectives

At the end of this chapter, you should be able to:

- List the physical stages that change in association with aging
- Describe the information processing components of cognitive development
- Learn and understand the concepts of ageism as well as associated common beliefs
- Describe the significance of families and personal relationships during late adulthood

A. Age-Related Demographic Changes

In recent years, the news media has revealed that there is a demographic crisis in regards to the aging population. Also, when talking about the age-related crisis, we refer to the “baby boomers” who are leaving the workforce and starting their retirement. Statistics show that there are not enough people from the adolescent and early adulthood stages entering the workforce. This can create a lack of compensation due to the age difference, which has caused the crisis, also known as the **workforce shortage**.

B. Ageism

Stereotypes are something that the elderly go through often, and these vary. **Ageism** is defined as prejudice against the elderly. The result of ageism is due to the fact that it prevents older individuals from being able to be fully effective members of society. Due to the changes in the field of **gerontology** which is the term used for studying the aged, it can cause negativity. Individuals who work as gerontologists attempt to find alternatives to the viewpoints on aging and will try and divide the population of those who are aging, into two different categories; **Young Old**, and **Old Old**.

Young-old individuals are known to be more healthy, financially secure, and happy. Old-Old individuals typically have significant physical, mental, and social problems.

C. Physical Changes of Late Adulthood

Let’s look at some of the physical changes that happen during late adulthood.

- **General Aging**
 - o There are apparent physical changes occurring



- o Tissue and organs typically change
- o Skin, hair, and the shape of one's body will change
- o An individual's bones will weaken, and one may lose weight
- o There is some slowing of one's behavior

- **Sleep Pattern Changes**
 - o Changes in the central nervous system occur, leading to changes in sleep
 - o The number of hours of sleep needed does not change during this stage
 - o REM sleep remains the same
 - o When people get older, they will begin to sleep less soundly

- **Changes in the Senses**
 - o Vision
 - 80% of elderly individuals need corrective eyewear (contacts or glasses)
 - 10% of elderly individuals do not need corrective eyewear
 - 10% may have one of the following eye conditions
 - Presbyopia: Common elderly affliction
 - Senile Macular Degeneration: the deterioration of the retina
 - o This affects 1 out of 6 people after the age of 24
 - o There is an increased chance of the individual developing diabetes
 - o Hearing
 - 1/3 of the population are affected by hearing problems
 - When hearing problems occur, most people do not seek medical attention
 - A stigma is used against using aids that help with hearing, usually because it is common with old age
 - Presbycusis is the term used for age-related hearing loss that occurs gradually. As people age, their abilities change - detection of sounds decreases (especially high-frequencies), and difficulty differentiating between certain sounds. A corrective aid can be used, like a hearing aid.

- **Other System Changes**
 - o As a person ages, there will be bodily systems that won't be as efficient
 - o A person's heart will begin beating slower
 - o A person's lungs will lose the elasticity on the membrane wall, and will lose capacity
 - o Sexual desires and responses will slow down
 - o A person's digestive system will slow down and create slower absorption
 - o Many elderly individuals will end up having to adjust their life to maintain daily functioning

D. Health Problems of Late Adulthood

As a person ages, there is an increased chance for chronic diseases. Two of the most common chronic diseases are arthritis, as well hypertension. Elderly individuals are also prone to developing acute diseases such as a heart attack or a stroke. Studies show that women are at a higher risk for developing

chronic disease during late adulthood than men. On the reverse side, men are more than likely to develop heart disease during late adulthood. Both male and female adults are at risk of heart disease and even cancer. These are the two most common conditions that lead to death in elderly individuals. Infectious disease death is also increased during this stage. It is usually due to immune senescence, which is the slowing of the immune system.

Studies show that heart disease is usually not a result of the aging process, granted that the cardiac process will lose efficiency due to aging. Some of the more common factors that lead to cardiac diseases are lack of exercise, smoking, not having proper nutrition, and high blood pressure. Approximately 25% of elderly people will die due to cancer. Cancer has many risk factors. Cancer in elderly individuals will begin before symptoms are visible. Immuno-senescence will typically increase the chance of developing cancer.

Some factors are significantly important during late adulthood; nutrition and sexual activities.

Nutrition

- o A person needs to increase their vitamin and mineral intake and decrease their intake of calories. Elderly individuals are known to need to have more nutrients and fewer calories
- o An elderly's aging cells typically hold water less efficiently, which means there is an increased need for water intake
- o Elderly individuals need to keep exercising, which in turn will help their body healthy, and their systems functioning properly

Sexual Activities

- o Studies show that there isn't a biological imperative to stop sexual activity suddenly
- o Many adults in late adulthood will continue having a healthy sex life, but at the same time, there is a chance for a decline in sexual activity
- o 70% of individuals will continue sexual activity in late adulthood

E. Wellness

Wellness is the state of experiencing optimal physical and mental health. This is the pursuit of health in mental, physical, and social aspects.

- o Physical + Emotional + Environmental + Social + Spiritual + Intellectual + Occupational = **Overall Wellness**

F. Aging Theories

Wear and Tear Theory

- o Known as the oldest theory and the most general aging theory. It has been proposed that a person's body will wear out after being in, and there is a chance for the body to start deteriorating. Think of someone playing their favorite CD over and over and over again. It will eventually stop working.



Cellular Accidents

- o When cells divide, there is a chance that mistakes will occur. The mistakes that happen are typically benign and will not cause problems. When there is a mistake, it will become a problem when several mistakes occur all at once. The mutated cells will begin having a decreased function, unlike non-mutated cells. There are free radical atoms that are unpaired with electrons. This will certainly cause harm to a person's body. The free radicals are produced during the process of metabolism and have the chance to damage a person's DNA. Vitamin C and Vitamin E help soak up the free radicals.

Error Catastrophe

- o This occurs when a body no longer has the ability to contain damaged cells that cellular accidents have caused. The aging theory usually helps explain cancer as well as malignant tumors.

Immuno-senescence

- o The aging process and getting older in life are just a part of the life cycle. Researchers seem to believe that there is programmed senescence for each cell in the body. This idea is proven due to the maximum lifespan. The maximum lifespan of humans is approximately 120 years. It's important to remember that the lifespan is not the same as life expectancy. Life expectancy is approximately 70 to 80 years Lifespan, and expectancy is different for males and females.

Genetic Clock

- o This theory is congruent with the ideals of programmed senescence. It is the end of the chromosomes where the genetic clock typically exists. Where they reside is called the **telomeres**. Studies show that genes help regulate aging. It is usually shown in individuals who have Trisomy 21, which is another name for Down Syndrome. Individuals with Trisomy 21 typically do not live into the late adulthood stage. There is another genetic disease that shows signs of aging. This is called **progeria**. Progeria usually affects a person's aging process and will accelerate aging, typically having patients die by the time they turn 15 years of age. Leonard Hayflick had researched aging and the aging process, especially the effects of these. According to his research, it was learned that a person's cells would stop reproducing after a certain number of times they divide. They will stop reproducing regardless of the damage to the cell. The **Hayflick Limit** refers to the cap on the divisions of cells.

G. Cognitive Development

When individuals turn the age of 60, they will begin experiencing a cognitive decline. The most noticed cognitive decline is processing information. The five following categories are what **decline**.

Sensory Register: This is the category where the aspect of memory and the functions will split for a second.

Working or Short-Term Memory: This category will handle the current mental activity. This is also the stage where individuals will begin to show declines in their age.

Implicit Memory: This is the category where memory functions with the unconscious portion of the brain. This type of memory is considered automatic memory.

Explicit Memory: This category is considered the executive function of memory and is known for learned words, facts and concepts.

Control Processes: This is the category where it is known as the executive part of the brain and is used to regulate flowing information.

Cognition stays **stable** for the following:

1. **Procedural memory** - guides a person on how to do something
2. **Implicit memory** - functions with the unconscious part of the brain (automatic memory).

Negative stereotyping affects the elderly as well. When elderly people begin thinking of themselves in a negative light, then there is a chance that they will negatively see general things.

H. Dementia and Alzheimer's

These are perhaps 2 of the most known issues that older adults may face later in life. **Dementia** is defined as extreme memory loss. Dementia will start with small memory lapses, and as it progresses, the lapses will become larger and larger. Eventually, as dementia progresses further, then there is a chance that the individual will not remember who their family members are and may even lose thought of who they are. Dementia, and the loss of memory that is associated with it, cannot be reversed. This is due to an organic brain disease. Dementia is not known to be normal, even in elderly individuals. Dementia that starts in the lower part of the brain is called subcortical dementia and usually affects motor impairments first and then causes cognitive impairments. Diseases such as Huntington's and Parkinson's are subcortical dementias.

Alzheimer's Disease is one of the most common forms of dementia. The occurrence of Alzheimer's disease starts because neurofibrillary structures will tangle in the brain and will keep the brain from functioning normally. Another organic reason that dementia occurs is something called

Pick's Disease. This is where there is an atrophy of the frontal and temporal lobe, which is usually fatal. Infectious diseases are yet another cause of dementia. Infectious diseases such as HIV and AIDS are known for creating cognitive problems. Cognitive issues that are associated with AIDS are called **AIDS-Related Dementia.** Someone who has drunk their entire life, especially later in life, can be diagnosed as a chronic alcoholic. This can develop into **Korsakoff's Syndrome**, another type of dementia that affects short-term memory.

I. Psychological Problems

In general terms, elderly individuals have a reduced risk of developing psychological illnesses. Only approximately 10% of elderly individuals have been diagnosed with dementia, and this 10% have been diagnosed with psychological problems and not physiological problems. One thing that is most often diagnosed is clinical depression. Sometimes it is diagnosed as dementia in elderly patients. Dementia can regress if there is proper treatment, such as therapy and pharmaceuticals. Depression, just as in any age, can be fatal. There is a higher rate of suicide in late adulthood than in any other age or lifespan group.

J. Psychosocial Development Theories

Looking back at Erik Erikson's stages of development, late adulthood is within the Integrity vs. Despair Stage. It is within this stage that people start looking back at their lives and will evaluate their lives and look at their sense of integrity.

- **Self-Theories**
 - Typically begin with a premise of choice
 - Typically end with self-actualization (According to Maslow)
 - **Continuity Theory:** This theory focuses on how individuals experience life
- **Activity and Disengagement Theories**
 - Activity Theory is the theory stressing how important physical activity is.
 - The Disengagement Theory is known as a controversial theory and typically says that people will disengage or withdraw from society as they get older
- **Kahn's Model of Successful Aging**
 - There is the promotion of physical wellbeing
 - There may be proper opportunities for social activities
 - There will be maintenance of cognitive ability

K. Work and Retirement

Due to financial incentives, more individuals are retiring from their places of work. This can be a huge change for a lot of people. It has been known to be a difficult and stressful move for many people. This is especially true if someone is forced into retirement. There are negative aspects of retiring: one individual will have to adjust to a new role in life.

Poverty potential is just one of the aspects of retiring. One-third of older individuals considered elderly lived below the poverty line. These statistics came from before the 20th century. In more recent years, there has been the development of Medicare and Social Security. These programs help those who are in the post-retirement populations.

Before retirement occurs, a person will go through pre-retirement with two phases:

1. **Negative views** - "retirement is far away; I am far too young"
2. **Planning** - Figuring out the retirement date, planning financials, and joining activities for retirees.

There are 5 stages of retirement:

1. **Honeymoon stage**
 - Enjoy the new freedom - start a new sport/hobby, sleep in, eat as you please.



2. **Disenchantment stage**
 - o Start to feel the loose ends - “What do I do now?”
3. **Reorientation stage**
 - o Find your own path and new meaning
4. **Stability stage**
 - o Fully accept retirement, get into a stable routine, and start feeling comfortable.
5. **Termination stage**
 - o Return to the workforce

L. Relationships and Intimacy

- **Marriage**
 - o Typically, adults who are considered elderly are usually satisfied with their relationships if they have been in long-lasting marriages.
 - o Statistics show that elderly individuals who are married will usually live longer, have happier and healthier lives.
- **Widowhood**
 - o Male widows and female widows tend to be less happy, unhealthy and will develop illnesses.
 - o Spouses who lose their significant other, are at risk for dying the following year.
 - o Stress is one of the biggest issues that older adults will face during widowhood.
- **Friendships**
 - o It is very important that friendships are maintained during late adulthood.
 - o Friendships are vitally important for elderly adults who are not married, or who have lost their spouse.
 - o Statistics show that elderly siblings will grow closer later in life.

M. Conflicts and Concerns of Late Adulthood

Health issues can plague older adults. Elder abuse is also something that a lot of elderly individuals face. Abusers can be anyone from nursing home employees, family members, or personal aids. **Elder abuse** is defined as the mistreatment of an elderly individual and may not be limited to just physical abuse. When older individuals can no longer take care of themselves, they may go into a long-term care facility. There is a danger of experiencing drug interactions, and there is the worry of an elderly person receiving proper nutrition.

Chapter 10: Review Questions

- 1. Chronic Diseases are?**
 - a. Generally reversible
 - b. Long-standing illnesses
 - c. Decrease with age
 - d. A disease may occur suddenly
- 2. Which category of information processing regards current and conscious mental activity?**
 - a. Sensory Register
 - b. Executive Function
 - c. Short-Term Memory
 - d. Wisdom
- 3. Self-reflecting examinations of one's life are called?**
 - a. Retirement
 - b. Continuity Theory
 - c. Despair
 - d. Ageism
- 4. What is the study of aging?**
 - a. Thanatology
 - b. Demography
 - c. Ageism
 - d. Gerontology
- 5. Of the following choices, which one is likely to contribute to functional disability?**
 - a. Cancer and heart disease
 - b. Arthritis and hypertension
 - c. Diabetes and stroke
 - d. Alzheimer's and schizophrenia
- 6. Which one of the following options is the maximum lifespan limited by?**
 - a. Telomeres on chromosomes
 - b. Secondary aging due to stress
 - c. The number of times a cell can reproduce
 - d. The ability of cells to metabolize waste produces
- 7. During which Erikson stage is in late adulthood?**
 - a. Generativity vs. Stagnation
 - b. Mobility vs. Disability
 - c. Integrity vs. Despair
 - d. Memory vs. Forgetfulness



- 8. Which of the following is not a stage of Khan's theory of successful aging?**
- a. Emotional balance
 - b. Physical health
 - c. Productive social activity
 - d. Cognitive ability
- 9. What are negative views and opinions an elderly person will have of themselves, called?**
- a. Self-stereotyping
 - b. Ageism
 - c. Dementia
 - d. Life-review
- 10. Statistics show that the upper limit of the lifespan is what?**
- a. 110 years
 - b. 115 years
 - c. 120 years
 - d. 130 years



Chapter 11: Death and Dying

Overview

This is the final stage during the lifespan. In this chapter, we will be discussing the end stages of the lifespan. Again, as previous chapters have discussed, we will be discussing the physical, cognitive and emotional dimensions of the death and dying stage of life.

Learning Objectives

At the end of this chapter, you should be able to:

- Understand how the process of death can be an integral part of a person's life cycle
- Describe social contexts and cultural differences in the death and dying stage
- Understand and list the five stages of dying created by Elisabeth Kubler-Ross
- Understand and describe the Hospice Movement
- Understand the concepts of grief and bereavement
- Understand and describe the Four Stages of Grief

A. Attitude Toward Death

Have you ever been told, when you have expressed the fear of dying, that “death is just a part of life?” All cultures, communities, and countries experience and/or witness death. Throughout the years, social attitudes towards death have changed. Due to unknown statistics, previous years showed that the average lifespan was only 40 years, which a lot of people considered short. Today, the average life span is 80 years of age. One thing that people must realize is that death is now its own industry. This is regardless of it not being as common as it used to be. Looking at the past, death was a very accepted and normal part of life, even a sad part of life. Fear of death has become more prominent in recent years, and people tend to withdraw from life once they find out they are close to the end.

Different ages or stages of life react differently to death. Below are 3 categories; childhood, adolescents, and adults and their take on death and dying.

- **Childhood**
 - Children, especially young children under the age of 7 do not fully understand that death means that it is the end of life for a loved one
 - One thing that psychologists urge parents to do is to inform their children if there has been a death in the family. That it is important that they understand that it will happen one day.
- **Adolescents**
 - During the adolescent years, there is not much worry about death and dying
 - Some adolescents believe that they are immune to death and dying
 - Some adolescents believe that dying and death will happen to others, but they will never experience it personally



- **Adults**
 - o Adults in the middle adulthood stage usually have the highest rate of fear of dying/death
 - o During adulthood, adults can talk to their children about death and dying more comfortably
 - o Older adults usually view death as a time organizer, and that it gives a reason to prioritize things in their lives again

Thanatology is the term used to describe the study of death. **Aesthetic sense** is known as the realization of mortality and death. This means that it tends to make individuals more responsive to nature. This leads to a greater appreciation of creative pursuits. Some individuals will reconsider their lives, look at what they have and have not accomplished in life, and look at the failures that may have occurred in life. Females tend to be less fearful about death than men. Older individuals, in general, are less anxious about death and dying than younger people.

B. The Hospice Movement

Statistics show that approximately 70% of individuals die in hospitals in the United States. This number is increasing for individuals who choose hospice care at home. There was a movement that began in the 1970s called The Hospice Movement. This movement began to humanize the dying process. It was also created to help reserve dignity for those who were dying. **Palliative care** is the term used to define hospice care that will focus on symptoms and not focus on lengthening one's life.

C. The Dying Process

There are 5 terms that define the stages of dying. Let's look at them below.

Agonal Stage: This is where a person will experience muscle spasms and gasping for death

Clinical Death: The heart, lungs, and brain function will stop. During this stage, a person can be revived

Brain Death: This is the stage where brain activity is not reversible

Persistent Vegetative State: A person is physiologically dead, but there is brain activity

Mortality: The person has no brain, muscular, cardiovascular, etc., functions, and they are dead.

A lady named **Elizabeth Kubler-Ross** proposed a framework that helped others understand death and the stages of grief.

Denial: A person(s) refusing to accept death

Anger: A person becomes angry about why a death happened

Bargaining: A person may plead to trade places with the person who died. A person may plead to do something in exchange for the deceased to return.

Depression: A person may experience extreme emotions that do come with the memory of painful events

Acceptance: Accepting that someone has passed, will pass, or any other event that may occur

D. Bereavement and Grief

Bereavement is the term used to define the state of feeling deprived of another human after their death. Grief and bereavement usually coincide with one another. Grief usually means a complex physical and even an emotional response after someone passes away. Some people will have a feeling of being lonely and empty. Some may experience numbness and go through extreme fatigue. All of these can have psychological and physical effects on a person. Individuals all grieve differently, and there is no set time period for a person to grieve. Grieving may take days, months, or even years.

When a person mourns the death of another, this is the personal reaction to bereavements. A person's culture influences these. Different cultures have different ways of reacting to someone's death. Here are some examples below.

- Honoring the life and death of someone who has passed away
- Socially approving the way they handle grief
- Having emotional support for those who are mourning
- Finding a way to redefine the life of the deceased person without them being present

Some people have a very difficult time coming to terms with the way a person has died. Especially if the death is premature. Here are some examples of when a death may be hard to comprehend.

- Sudden deaths such as car accidents
- Premature deaths such as an infant or a child death
- Stigmatized death such as dying due to suicide or due to a hate crime

E. Right to Die and Euthanasia

There has been a new issue that has come to light in recent years. This ethical conundrum can be looked at from many different perspectives. For example, some people believe that there is no need for any change in how medical professionals have acted up until now. On the other hand, some people are requesting more stringent regulations on these judgments and what is considered permissible to do. It can be a difficult decision, but sometimes people may wish to end their lives when they are diagnosed with a disease that cannot be cured and current treatment has ceased.

| Euthanasia | Assisted Suicide |
|--|--|
| A doctor is allowed by law to end a person's life by painless means. <i>The painless killing of a patient suffering from an incurable and painful disease or in an irreversible coma.</i> | A doctor assists a patient in committing suicide if they request it. <i>"Intentionally helping a person commit suicide by providing drugs for self-administration, at that person's voluntary and competent request."</i> |

Assisted suicides have and still are controversial among medical professionals such as doctors, caregivers, and even patients. There was a lawsuit involving an individual by the name of **Dr. Kevorkian**. This lawsuit created more controversy surrounding the issue. 10 States in the United States have legalized Physician-Assisted Suicide, and the other 40 states either prohibit it or have no law yet. Oregon is one of the most well-known states because of its Death With Dignity Act. The federal government and

all 50 states prohibit euthanasia under general homicide laws. Assisted Suicide laws depend on each state. There are between 6 and 15 countries worldwide that have legalized one or both practices. Switzerland was the first country to legalize Physician-Assisted Suicide (PAS) in 1937.

Later in life, more and more medical professionals ask if individuals have an advanced directive or living will that will help after a person dies. These documents usually state the individual wishes and give the person in charge of their care the right to make decisions for them. These documents also state whether or not a person wants to receive CPR or have any other heroic/extraordinary measures used to keep them alive or to let them pass.



Chapter 11: Review Questions

- 1. A person has a heart attack, is no longer breathing, and has no pulse. If he was resuscitated by the CPR method, what did this person experience?**
 - a. Brain death
 - b. Mortality
 - c. Clinical Death
 - d. Persistent Vegetative State
- 2. What is one benefit of palliative care?**
 - a. Prolonging life
 - b. Reducing pain
 - c. Encourage exercise
 - d. Take care of psychological problems concerning dying
- 3. According to Kubler-Ross, what occurs during the second stage of dying?**
 - a. Anger
 - b. Denial
 - c. Bargaining
 - d. Depression
- 4. What is the most common advanced directive in medical treatments?**
 - a. Assisted suicide
 - b. A living will
 - c. Bereavement
 - d. DNR
- 5. Where do most deaths occur in the United States?**
 - a. Hospitals
 - b. Hospice
 - c. Home
 - d. Work
- 6. When is a person allowed to be revived?**
 - a. Vegetative Death
 - b. Brain Death
 - c. Clinical Death
 - d. All of the above

- 7. During which age in life do people believe that they are invincible and there is unlimited time left to do things?**
- a. Childhood
 - b. Late Adulthood
 - c. Middle Adulthood
 - d. Adolescence
- 8. Which state was first to legalize physician-assisted suicide?**
- a. New York
 - b. California
 - c. Oregon
 - d. Texas
- 9. Of the following options, which one is considered a stigmatized death?**
- a. Car accidents
 - b. Suicides
 - c. Cancer
 - d. All of the above
- 10. Which two groups are at a higher risk of committing suicide?**
- a. Adolescents and young adults
 - b. Middle-aged adults and elderly individuals
 - c. Young adults and middle-aged
 - d. Adolescents and elderly individuals

Chapter 12: Disorders and Syndromes

Overview

This is an essential chapter in understanding abnormal development and how mental disorders can affect a person's life. It is important to understand the theory in this chapter as well as be able to apply it to real-life examples.

Learning Objectives

At the end of this chapter, you should be able to:

- Understand the tools needed to diagnose mental disorders
- Distinguish between different mental disorders
- Understand how some disorders can form due to physical illness

A. Diagnosis

When diagnosing a mental disorder, all over the world, psychiatrists and psychologists used a book called the DSM-5. As noted by the name, this is the 5th version of this manual. The Diagnostic and Statistical Manual of Mental Disorders has the criteria, descriptions, and symptoms listed to diagnose different mental disorders.

A more recent version of the DSM-5 has been released, called the DSM-5-TR where some criteria have been revised to reduce racial and cultural biases. A new diagnosis, called prolonged grief disorder was also added. While not crucial for your exam, you should be aware of the ever-changing nature of mental disorder classification. An example of such changes is shown below, as referenced by verywellmind.com.

| Used in DSM-5 | Used in DSM-5-TR |
|--|---|
| <ul style="list-style-type: none">■ Desired gender■ Cross-sex medical procedure■ Natal male■ Natal female | <ul style="list-style-type: none">■ Experienced gender■ Gender affirming medical procedure■ Individual assigned male at birth■ Individual assigned female at birth |

While there are many more disorders in the DSM, we are only going to be studying a few, so if you notice that one you are familiar with may have been left out, it is only since the disorders have been filtered to present you with the relevant ones for your exam.

B. Anxiety Disorders

There are several types of anxiety disorders, including:

- Generalized anxiety disorder (GAD)
- Obsessive-compulsive disorder (OCD)
- Specific phobias

Generalized Anxiety Disorder

GAD can cause not only mental strain but also physical symptoms. Symptoms such as fatigue, headaches, nausea, trembling, and insomnia. Feeling stressed is expected in situations that warrant a stressed response; however, people with GAD feel this way all the time.

This disorder tends to be genetic, but there are also environmental causes. The amygdala processes fear in the brain and contributes to its prominence. Addiction is very commonly associated with GAD.

Obsessive-Compulsive Disorder

OCD is characterized by **compulsions** and **obsessions**. **Compulsions** are behaviors that we use to **cope with anxiety** and can be ritualistic such as locking your door four times. **Obsessions** become intrusive ideas, and you cannot stop thinking about them. These often lead to compulsions, such as when you ask yourself, “But did I lock my door?”.

Phobias

Phobias should not be confused with being afraid of something. Experiencing extreme fear and even a physical response is part of having a phobia. Specific phobias that we might be familiar with are arachnophobia - the fear of spiders, or claustrophobia - the fear of enclosed spaces. In the exam, a commonly mentioned phobia is social phobia, which is a fear of interacting with others. Social anxiety is a general fear of social interactions.

C. Mood Disorders

Within the realm of mood disorders, we will look at major depression, persistent depressive disorder, and bipolar disorder. A common exam question in this section focuses on suicide. A fundamental fact to remember is that people suffering from depression often don't have the motivation to commit suicide. Hence, people with bipolar disorder going through a manic episode are the most likely to commit suicide.

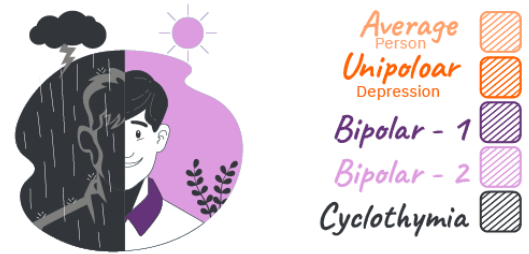
Major Depression

Knowing the signs of major depression is necessary for the exam.

- Changes in sleep patterns and appetite



- Losing interest in social activities
- Irritability
- Feelings of worthlessness
- Weight loss or gain
- Psychomotor agitation or retardation
- Fatigue
- Thoughts of death or suicide

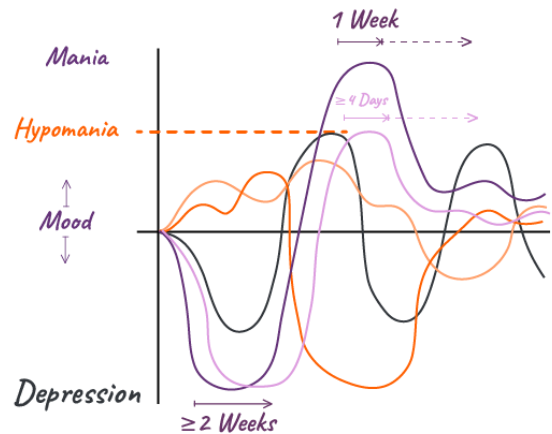


Persistent Depressive Disorder

The difference between Major Depression and PDD is that PDD often presents milder and stretches over a more extended time period. Both of these conditions are treated similarly.

Bipolar Disorder

Bipolar disorder is very well known for having extreme highs and lows in a person. The lows often present as depression, while the highs are known as **mania**.



Mania can be noticed by the feeling of being high, the lack of sleep necessity, bigger self-esteem, sped-up speech, and agitation. Some people may even experience hallucinations or delusions.

There are three kinds of bipolar disorder. Bipolar I is more extreme than bipolar II. Cyclothymia is the least extreme of the three. Reference the graph to study the severity of each.

D. Personality Disorders

A summary of the personality disorders can be found in the image on the left. You do not need to memorize all of these, and the focus will be on antisocial personality disorder for the scope of the exam.

Types of Personality Disorders

CLUSTER A:

Odd thinking and accentric behavior

Paranoid personality disorder
Schizoid personality disorder
Schizotypal personality disorder

CLUSTER B:

Dramatic and erratic behavior

Antisocial personality disorder
Borderline personality disorder
Histrionic personality disorder
Narcissistic personality disorder

CLUSTER C:

Severe anxiety and fear

Avoidant personality disorder
Dependent personality disorder
Obsessive-compulsive disorder

Differentiating Behavior

Antisocial behavior can be seen as actions that don't consider the well-being of others or intend harm to others. This can include violating people's basic rights or being disruptive to society.

Persistent antisocial behavior gets diagnosed as antisocial **personality disorder** or, as it was known in the DSM-4, **psychopathy** or **sociopathy**.

Asocial behavior is very different from antisocial behavior, and it is important to differentiate between these for the exam. **Asocial behavior** leads to a person becoming isolated and withdrawn from society. Other terms for asocial behavior are nonsocial, unsocial, and social uninterest.

Introversion is commonly seen with low sensitivity to social cues and emotions.

E. Trauma and Stressor Related Disorders

When considering the development of these disorders, we always look at three points: genetics, such as family history of disorders; **biological factors**, such as the level of stress hormones; and **environmental factors**, such as having a dangerous job. **Repeated trauma** will increase the chance of the development of these disorders.

Symptoms to be familiar with in this section are:

Anhedonia - loss of interest in activities

Dysphoria - state of dissatisfaction or uneasiness

Dissociation - where you feel detached from your environment and yourself

Aggression - irritability leading to aggressive behavior

The two examinable disorders are **PTSD** and **acute stress disorder**. Acute stress disorder is more commonly diagnosed directly after an event - up to one month after exposure.

This diagnosis can change to PTSD once symptoms have been present for a more extended period or longer than one month.

DSM-5:

1. Posttraumatic stress disorder (PTSD).
2. Acute stress disorder.
3. Adjustment disorders.
4. reactive attachment.
5. Disinhibited social engagement disorder.
6. Other specified trauma & stressor-related disorder.
7. Unspecified trauma & stressor-related disorder.

F. Neurodevelopmental Disorders

Neurodevelopmental disorders emerge in the developmental period of life:

- Intellectual Disorders:
- Communication Disorders.



- Autism Spectrum Disorder.
- Attention-Deficit/Hyperactivity Disorder.
- Specific Learning Disorders.
- Motor Disorders.
- Tic Disorders

For examination purposes, we will focus only on ADHD.

ADHD or attention deficit hyperactivity disorder is a disorder that impacts a person's ability to stay still, control their impulses and pay attention. ADHD can present differently in boys and girls and can occur in many different severities. Three consistent characteristics are **inattention, hyperactivity, and impulsivity**.

G. Neurocognitive Disorders

This term describes decreased mental functioning due to medical issues rather than a psychiatric illness. These disorders are acquired during the life span; examples are the following:

- dementia
- amnesia
- delirium

H. Sensory Deprivation

This refers to a condition where senses are lessened or not felt at all. Senses such as sight, sound, smell, touch and taste are affected. This can be a symptom of an underlying cause, however, it can also be used as a treatment.

When diving, a diver can often notice the lack of gravity affecting their body and sounds are muffled. While sight and touch are still intact, this can allow for relaxation. This concept gave way to **floating tank therapy**, which is a type of therapy where some senses are deprived in order to reduce stress. It allows a person to float in darkness in body temperature water to truly let you focus on your thoughts. The negative sides of sensory deprivation is what we are most familiar with with the recent outbreak of Covid-19 where some people lost the sense of taste and smell. This can lead to depression, memory loss, decreased cognition, hallucinations, anxiety and personality changes. When losing the ability to experience any sensation, many people would be affected negatively.

This is not to be confused with **environmental deprivation** where there are deficiencies in necessities in our environment with resources such as clean water, a safe place to live and clean air.



Chapter 12: Review Questions

- 1. Which of these statements does not describe accurate criteria for PTSD, as described by the DSM-5?**
 - a. Persistent avoidance of memories, thoughts, feelings, or external reminders associated with the traumatic event(s) lasting for more than one month.
 - b. Negative, distorted, or exaggerated beliefs, cognitions, or moods are associated with a traumatic event that lasts for more than one month.
 - c. The presence of memories, dreams, or dissociated reactions that are involuntary, intrusive, distressing, and recurrent lasting for more than one month.
 - d. Exposure to serious injury, sexual violence, or threatened or actual death lasting more than one month.

- 2. The DSM-5 is designed to help with which of the following?**
 - a. Treating psychological disorders
 - b. Classifying psychological disorders
 - c. Identifying causes of psychological disorders
 - d. Distinguishing between sanity and insanity

- 3. Which of the following examples best illustrates a person with obsessive-compulsive disorder (OCD)?**
 - a. Steven hyperventilates whenever he is in an elevator.
 - b. Blake wanders around town in a daze, not sure how she got there.
 - c. Shelly constantly complains about feeling sick and goes to many doctors.
 - d. Adam must lock his door 10 times before he leaves for work every morning.

- 4. Which of the following is NOT an anxiety disorder?**
 - a. Agoraphobia
 - b. Illness Anxiety Disorder
 - c. Panic Disorder
 - d. Generalized Anxiety Disorder

- 5. This disorder is characterized by irritability, difficulty concentrating, and inability to control one's worry.**
 - a. Specific Phobia
 - b. Obsessive-Compulsive Disorder
 - c. Generalized Anxiety Disorder
 - d. Bipolar Disorder



- 6. Jeff has total disregard for the rights or property of others. He steals all the time from just about anyone. He randomly harasses people. Last month he was arrested for theft, and although he is in jail, he continues to lie and has little remorse for his actions. Jeff is suffering from what mental disorder?**
- Major depression
 - Histrionic personality disorder
 - Schizoid personality disorder
 - Antisocial personality disorder
- 7. Which of the following symptoms is NOT a symptom of Obsessive-Compulsive Disorder (OCD)?**
- Unwanted urges or impulses
 - Severe depression
 - Ritualized behavior
 - Uncontrollable thoughts
- 8. Excessive Dopamine is linked with**
- Parkinson's disease
 - Antisocial personality disorder
 - Schizophrenia
 - Depression
- 9. A narcissistic personality disorder is characterized by:**
- An unstable self-image
 - Social isolation
 - Feelings of inadequacy
 - Inflated sense of self
- 10. Agoraphobia is the fear of:**
- Heights
 - Being in places with no escape
 - Being embarrassed or judged by others
 - Speaking in public

Chapter 13: Research Methods in Psychology

Overview

Welcome to chapter 13, where we will discuss research methods in psychology.

The various research methods discussed in this chapter are used in general psychology and developmental psychology. This chapter helps you understand the basic principles of research and the importance of gathering information for better patient care.

Also, we will be exploring the various types of research, emphasizing how to collect and analyze information. Also, we will be exploring the various types of research, emphasizing how to collect and analyze information.

Learning Objectives

At the end of this chapter, you should be able to

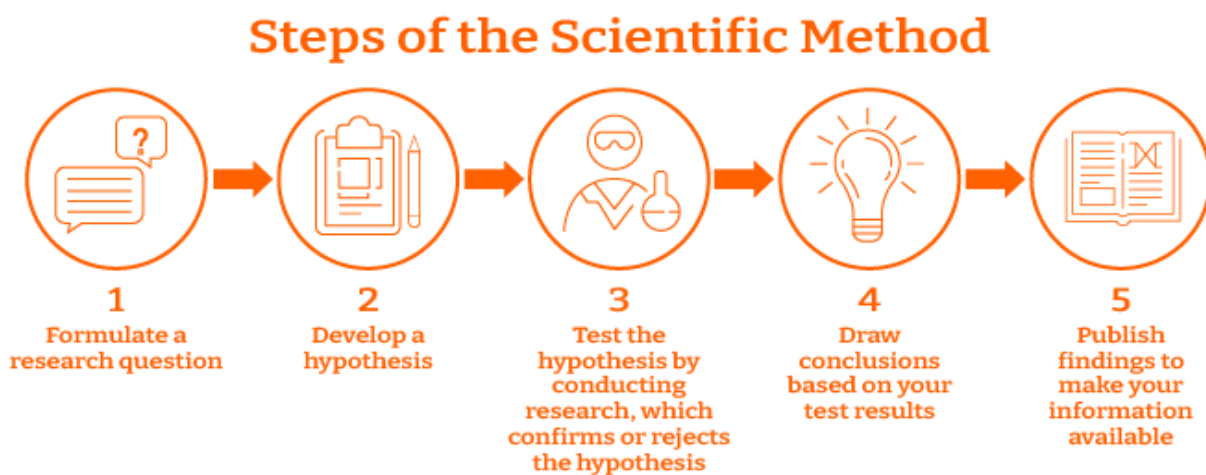
- Define the Scientific Method
- Understand the various research methods and how they are used in developmental psychology
- Describe the methods of selecting a research population
- Define research ethics

A. The Scientific Method

All research uses the scientific method to help collect information from research.

The following are the five steps of this method:

- Formulate a specific research question
- Develop a premise (hypothesis)
- Test your hypothesis by conducting research (Which may confirm or reject your hypothesis).
- Draw conclusions based on the results of your research
- Publish the findings of your research and make the information available to others



B. Methods of Research

There are 5 additional ways that you can conduct research. Let's explore each one in more detail.

Naturalistic Observation: This type of observation looks at individuals in actual life situations. Researchers that use this method do not influence the situation. There are several limitations to this method. The first one is that there is an inability to link cause and effect and the inability to generalize the found results.

Experiment: This type tests the hypothesis created by the researcher in a controlled situation. When we say controlled, this means either in a lab or another area specified for the research. Unlike many methods, this method uses dependent and independent variables. The independent variable is the variable that researchers can change or manipulate. The dependent variable is the variable that will change in response to the independent variable. Like naturalistic observation, experiments also have limitations. Some limitations include the behavior being altered and the possibility that the subjects will find out that they are being observed. With this occurring, there is the possibility of experimental bias. Two control groups occur during experiments. These are called **experimental** and **control groups**. Control groups are known for receiving **placebos** or fake treatments.

Survey: This method is where the researchers ask participants for information about themselves, a specific topic, and their opinions about a particular topic. Usually, researchers will conduct interviews or provide questionnaires, but other methods include in-person interviews, on the phone, through the mail, and even over the internet. Just like other methods, there are some limitations to research using surveys. One issue that some may face is that individuals may not be honest or truthful when answering questions. Individuals may also change their answers based on predetermined notions of what they think they should say.

Interviews: Interviews are another method that is used for research. These are usually conducted face-to-face or over the phone, even though Skype is on a computer. Some limitations to this method are that some individuals will not want to answer questions about sex, drugs, or other dishonest or illegal behaviors.

Case Studies: Case studies are considered in-depth studies about a certain topic. What researchers can do with case studies is gather information such as life histories, attitudes, behaviors, thoughts, emotions, etc. This can be a very expensive way to conduct research. Other limitations include participants dropping out, passing away, or forgetting about the study they were supposed to participate in.

C. Research Designs

Now, we will discuss 3 different research designs. They are the longitudinal study, cross-sectional study, and cross sequential study.

Longitudinal Study: This involves studying the same group of people over an extended period. Researchers use this design to compare a group of people from one age to a different age. Changes over the period of time are studied as well. Long-term studies are very expensive to conduct. Some participants may move away or choose not to participate in the study or leave the study.

Cross-Sectional Study: This type of study compares individuals of various ages. The groups of individuals in the study have varying ages but have similarities in other areas. This research is conducted at a single point in time and is like a snapshot of the population. Some of the issues using this study method are that there could be a difference in population that may not be due to age, and the variables are difficult to control.

Cross-Sequential: This study combines longitudinal and cross-sectional studies. The study begins with a cross-sectional design and will then look at the same group over a specific time period. Limitations include it is very complex as well as expensive to conduct. This type of design also requires a long-term commitment.

These studies note two types of experiments: true experiments and quasi-experiments.

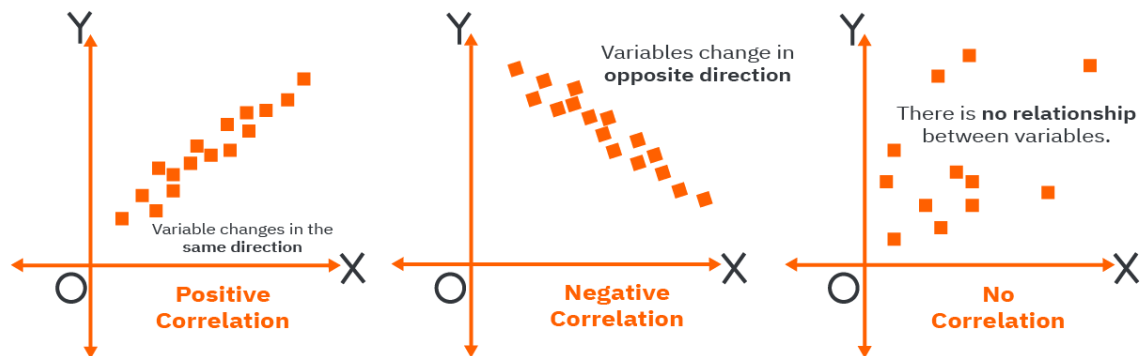
| True Experiments | Quasi-Experiments |
|---|--|
| Internal Validity is Emphasized | External Validity is Emphasized |
| Cause and Effect Assessed | Real & Natural Events |
| Clear Hypothesis is Tested | Exploratory or Clear Hypotheses |
| Randomly Assigned Participants or Control Groups | Non-Equivalent Groups Not Randomly Assigned Existing Groups, Self-Selection |
| Manipulates Independent Variable | May Not Be Able To Fully Control Variable |

D. Interpreting Study Results

It is practically impossible to prove that there is a relationship between variables or that the A variable caused the B variable to change. Although those are impossible to prove, it is possible to show a **correlation** between variables. What is meant by correlation is that multiple variables usually are related and will change in the same way. There are three different types of correlations; positive, negative, or no correlation.

Let's explore what each one means.

- **Positive Correlation:** The variables change in the same direction
- **Negative Correlation:** The variables change in the opposite direction
- **No Correlation:** There is no relationship between the variables.



Even if there are correlations, this does not mean that there will be **causation** between the variables. Causation is only applied when one of the variables produces a change in another variable. An example would be if someone were selling ice cream on a beach and then suddenly there was a shark attack multiple times. It could be positively correlated because the numbers may simultaneously increase. Keep in mind that eating the ice cream did not cause the sharks to attack, so both events occur simultaneously, without causing change to either variable.

E. Ethics in Research

As you can see, humans are not involved in research work as much in other fields of science. By contrast, they are used very extensively in psychology experiments. In using human beings, there could be the possibility of ethical issues. There are two main aspects related to ethics that are vitally important to understand and remember. One is called informed consent, and the other is about privacy.

Informed Consent: This is where the researcher or person conducting the research must explain to all the participants all aspects of the research and/or treatment, including the risks and benefits.

Privacy: This is where the research subjects and/or patients need to know that any information gathered about them will remain confidential.

Deception, is when a researcher does not tell the subject all about the study. The researcher may be afraid that information about the study will sway a participant's answers or behavior during the study. One thing that researchers do to help decrease bias during a study, might be by not telling the entire truth about the goals for the study. This does have a cause for concern from an ethical point of view. Something that may seem shocking to some is that deceiving is sometimes necessary to preserve the integrity of the research/study/experiment. After a study is completed, participants will go through the **debriefing** process.

The research subjects will be told how they were deceived and why they were deceived. Usually, participants will receive a final copy of the study results used and stored.

Chapter 13: Review Questions

- 1. What occurs in the first step of the scientific method?**
 - a. Test the hypothesis by conducting research
 - b. Drawing conclusion based on research results
 - c. Formulating research question
 - d. Publish the findings
- 2. What do the observations of individuals in true-life situations refer to about research methods?**
 - a. Experiment
 - b. Case Study
 - c. Variable
 - d. Naturalistic Observation
- 3. What are important aspects of ethics in research?**
 - a. Observation
 - b. Documentation
 - c. Consent and Privacy
 - d. Generalizations
- 4. Which of the following is used when conducting a survey?**
 - a. Interviews and questionnaires
 - b. Evidence-based data
 - c. Case study results
 - d. Placebo
- 5. What is it called when a study compares individuals of various ages?**
 - a. Cross-Sectional Study
 - b. Longitudinal Study
 - c. Cross-Sequential Study
 - d. Ethical Study
- 6. When going over research study results and the variables change in the SAME direction, this is considered what?**
 - a. No Correlation
 - b. Full Correlation
 - c. Negative Correlation
 - d. Positive Correlation
- 7. Which of the following is the type of method used for the U.S. Census?**
 - a. Interview type method
 - b. Hypothesis
 - c. Naturalistic Observation
 - d. Survey Method



- 8. Debriefing is useful to researchers to help decrease what?**
- a. Bias
 - b. Privacy
 - c. Knowledge
 - d. Communication
- 9. What is it called when a researcher does not tell the subjects the entire truth about the study they are about to participate in?**
- a. Breach of confidentiality
 - b. Deception
 - c. Bias
 - d. Unethical Behavior
- 10. Cross-sequential studies combine the results of what other study?**
- a. Longitudinal
 - b. Cross-sectional
 - c. Sequential
 - d. Both A and B

Chapter Review Question Answer Key

| | | | | | |
|--|------|------|------|------|-------|
| Chapter 1: (The LifeSpan) | 1. C | 2. B | 3. C | 4. C | 5. B |
| | 6. C | 7. D | 8. C | 9. B | 10. A |
| Chapter 2: (Brain & Nervous System) | 1. E | 2. E | 3. D | 4. B | 5. D |
| | 6. B | 7. D | 8. C | 9. B | 10. A |
| Chapter 3: (Genetics, Prenatal Development, and Childbirth) | 1. D | 2. B | 3. B | 4. A | 5. D |
| | 6. C | 7. C | 8. A | 9. A | 10. A |
| Chapter 4: (Infancy and Toddlerhood) | 1. C | 2. B | 3. B | 4. A | 5. D |
| | 6. C | 7. A | 8. D | 9. B | 10. D |
| Chapter 5: (Early Childhood) | 1. C | 2. B | 3. C | 4. A | 5. D |
| | 6. C | 7. B | 8. C | 9. A | 10. C |
| Chapter 6: (Middle Childhood) | 1. B | 2. A | 3. A | 4. B | 5. B |
| | 6. A | 7. C | 8. D | 9. D | 10. D |
| Chapter 7: (Adolescence) | 1. A | 2. A | 3. C | 4. C | 5. B |
| | 6. B | 7. C | 8. A | 9. D | 10. A |
| Chapter 8: (Early Adulthood) | 1. B | 2. A | 3. C | 4. D | 5. C |
| | 6. A | 7. C | 8. B | 9. B | 10. D |
| Chapter 9: (Middle Adulthood) | 1. B | 2. D | 3. C | 4. A | 5. D |
| | 6. D | 7. A | 8. D | 9. D | 10. D |
| Chapter 10: (Late Adulthood) | 1. B | 2. C | 3. B | 4. D | 5. B |
| | 6. C | 7. C | 8. A | 9. A | 10. C |
| Chapter 11: (Death and Dying) | 1. C | 2. B | 3. A | 4. B | 5. A |

| | | | | | |
|--|------|------|------|------|-------|
| | 6. C | 7. D | 8. C | 9. B | 10. D |
| Chapter 12: (Disorders and Syndromes) | 1. D | 2. B | 3. D | 4. B | 5. C |
| | 6. D | 7. B | 8. C | 9. D | 10. B |
| Chapter 13: (Research Methods) | 1. C | 2. D | 3. C | 4. A | 5. A |
| | 6. D | 7. D | 8. A | 9. B | 10. D |

Practice Exam

- 1. Of the following options, which one of the developmental domains typically involves acquiring problem-solving skills and learning new information?**
 - a. Cultural
 - b. Accommodation
 - c. Mathematical
 - d. Cognitive
- 2. What do longitudinal studies study?**
 - a. The same people over and over
 - b. Different people over time
 - c. Time intervals
 - d. Where someone is on the globe
- 3. Which options best state the difference between Vygotsky's theories and Piaget's theories?**
 - a. The causal role of maturational factors
 - b. The causal role of social factors
 - c. The causal role of environmental factors
 - d. The types of conflicts that arise during adolescence
- 4. Which one of the following individuals developed the Zone of Proximal Development theory?**
 - a. Skinner
 - b. Vygotsky
 - c. Bandura
 - d. Thorndike
- 5. Which of the following individuals came up with the ecological development model?**
 - a. Bronfenbrenner
 - b. Vygotsky
 - c. Bandura
 - d. Darwin
- 6. A scientist wants to know whether failure at a task will cause frustration. The study has one group of people who were told that they failed at a task. The other group was told they had succeeded at the task. Failing or not at the tasks would be?**
 - a. An unconditioned response
 - b. The dependent variable
 - c. A within-subjects manipulation
 - d. The independent variable
- 7. Which of the following is "Time-Out" a principle of?**
 - a. Operant conditioning
 - b. Classical conditioning
 - c. Role modeling
 - d. Authoritarian parenting



- 8. Piaget's theory of cognitive development begins with what?**
- Sensorimotor functioning
 - Concrete operations
 - Preoperational stage
 - Post-Formal operations
- 9. Which abnormality is caused by an extra chromosome (21st chromosome to be exact)?**
- Phenylketonuria (PKU)
 - Klinefelter's Syndrome
 - Down Syndrome
 - Alzheimer's
- 10. Of the following choices, which one is TRUE about cross-sectional designs?**
- The design only deals with geographical information
 - One-half of the total sample size is given a placebo
 - Two groupings of the same age are studied over a long period of time
 - One age sample is compared with one or more samples from another age
- 11. Which answer is an inheritable set of traits?**
- Prototype
 - Genotype
 - Karyotype
 - Phenotype
- 12. Of the listed theories, which ones are based on the system of rewards and punishments?**
- Psychoanalytical
 - Cognitive
 - Behavioral
 - Social Learning
- 13. John Doe is known as a healthy and normal male. Which of the following is an example of his sex chromosomes?**
- XY
 - XX
 - YY
 - YXX
- 14. A researcher studies cognitive development by collecting data from a specific group of infants starting when they are only 4 months old. This experiment goes on at 6-month intervals for the next 10 years. What is this an example study of?**
- Placebo study
 - Experimental
 - Cross-sectional
 - Longitudinal

15. Negative reinforcement can be described as what?

- a. A nephew receiving money for good behavior
- b. A niece liking the attention when she gets into trouble
- c. A daughter avoiding punishment when she lies about her behavior
- d. A son receiving money for and behavior

16. Which of the following types of conditioning will evoke a single response using two stimuli?

- a. Role modeling
- b. Operant
- c. Classical
- d. Social learning

17. When we age, the levels of _____ intelligence will increase, and our levels of _____ intelligence will decrease.

- a. Multiple/general
- b. Crystallized/fluid
- c. Fluid/crystallized
- d. Crystallized /general

18. Of the following answers, which is a characteristic common to those with Turner's Syndrome and Klinefelter's Syndrome?

- a. Sterility
- b. Mental retardation
- c. Early-onset of Alzheimer's
- d. Chromosome deficiency

19. High alcohol consumption by a mother may cause?

- a. ADHD
- b. ADD
- c. Down Syndrome
- d. Fetal Alcohol Syndrome

20. What happens when there is an absence of one chromosome?

- a. Turner's Syndrome
- b. Klinefelter's Syndrome
- c. Down Syndrome
- d. Androgyny

21. When Rachel became pregnant one week ago, her husband's sperm cell fertilized her egg cell. What is it called when the egg becomes fertilized?

- a. Zygote
- b. Fetus
- c. Embryo
- d. Ovum



22. Carl is an architect. According to Howard Gardner’s Theory of Multiple Intelligences, which intelligence does Carl possess?

- a. Kinesthetic
- b. Emotional
- c. Spatial
- d. Mathematical

23. The Lamaze childbirth method has what core belief?

- a. The mother needs to have her partner with her for support
- b. The mother learns breathing to help with labor pains
- c. Childbirth at the hospital is recommended
- d. Cesarean sections are very dangerous

24. The gene for brown eyes is dominant over the gene for blue eyes. Which of the following is not true?

- a. Both brown-eyed parents can have a blue-eyed child.
- b. Both blue-eyed parents will have a blue-eyed child.
- c. For a child to be brown-eyed, at least one parent should be brown-eyed
- d. A blue-eyed person will always have both their alleles different from a brown-eyed person.

25. A mother’s newborn has stubby fingers and a “webbed” neck. Doctors said their child might have difficulty with her spatial and mathematical abilities. These characteristics are typical of which sex chromosome abnormality?

- a. Turner’s Syndrome
- b. Fragile X
- c. PKU
- d. Klinefelter’s Syndrome

26. Of the following answers, which one shares how men and women compare in morbidity and mortality rates?

- a. Women have higher morbidity and mortality rates
- b. They have the same morbidity rates, but men have higher mortality rates
- c. Women have higher morbidity rates, and men have higher mortality rates
- d. Men have higher morbidity and mortality rates

27. Which is the correct sequence of the prenatal development stage?

- a. Embryo, Fetus, Zygote
- b. Fetus, Embryo, Zygote
- c. Zygote, Embryo, Fetus
- d. Zygote, Fetus, Embryo

28. What is hospice?

- a. A religious treatment
- b. A philosophy
- c. A Nursing Home
- d. A Retirement Community



29. Which of the following statements best describes a teratogen?

- a. An environmental factor that causes birth defects
- b. A social factor that has lifelong negative effects
- c. An abnormality in infants of alcoholic mothers
- d. A genetic abnormality is passed from one generation to the next

30. Which pair of chromosomes determines a person's sex?

- a. 1st
- b. 46th
- c. 12th
- d. 23rd

31. At their high school dance, 4 seniors discussed their future plans. Which of them appears to be in moratorium as far as identity is concerned?

- a. Julie, who said, "I envy all of you. You're so sure of what you want to do with your life. All I know is that I want a career and not just a job. That's why I decided to go to college and hope that I will find something that will interest and inspire me."
- b. Lisa, who said, "At first, I thought it was really a bad idea when my uncle suggested I come work at his law firm, but the more I thought about it, the more I liked the idea."
- c. Angie, who said, "I've wanted to work as a cosmetologist ever since my grandmother bought me a doll that you could put makeup on. Someday I am going to have my own cosmetology practice."
- d. Tiffany, who said, "I plan on staying at home and being a wife and mother."

32. What occurs during the germinal stage of prenatal development?

- a. Three of the 5 senses are fully developed
- b. The zygote travels down from the fallopian tube and begins the process of cell division
- c. Proximodistal mobility begins
- d. Sex is already determined

33. Of the following choices, which one is an example of the rooting reflex?

- a. In response to the sudden sensation of falling, the baby will bring its arms in towards the body in a hugging motion
- b. When a baby's cheeks are touched with a finger, the baby will turn its head in the direction of the finger
- c. When a finger is placed in the baby's mouth, the baby begins sucking on it
- d. When a finger is placed in the palm of a baby's hand, the baby grasps the finger tightly

34. Why is Fragile X Syndrome worse in men than in women?

- a. Females have two X's and males only have one X
- b. Females have two Y's and males have only one X
- c. Males do not get this syndrome
- d. Females do not get this syndrome



- 35. Jimmy wants to make sure that his father retains control over any decisions made concerning how, when, and under what circumstances life-sustaining treatments will be used or withheld in the case of his own final illness. What does this describe?**
- Power of attorney
 - Living trust
 - Living will
 - DNR
- 36. When is the APGAR scale completed?**
- Ten days before a baby is born
 - During an infant's one-year checkup
 - One the baby's first doctor's visit
 - Right after delivery
- 37. Mikey and Sam are both playing with blocks but are not interacting with one another. Which type of play does this suggest?**
- Parallel play
 - Simultaneous play
 - Cooperative play
 - Integrative play
- 38. In comparison with Formal Operational Thought, Postformal Thought is characterized as the ability to do what?**
- Focus on several things at once
 - Make a choice based on experience
 - Deal with relative and subjective knowledge
 - Reduce the number of problems that one considers
- 39. Which of the following examples shows a toddler using a gross motor skill?**
- Mike, who is sitting on the rug and methodically picking up every piece of paper and examining it
 - Sam, who is walking on all fours "like a dog"
 - Joy, who is laughing uncontrollably while reading
 - Steve, who is eating spaghetti with his hands
- 40. When a child understands object permanence, what can the child now do?**
- Understand there are equal amounts of water in vases of two different sizes
 - Look for the ball that rolled under the couch
 - Solidify Postformal Thoughts
 - Understand that a round object contains the same amount of material when it is flattened into a pancake
- 41. A pathologist is performing an autopsy. The patient displayed steady mental deterioration prior to his death. It was found that some of his brain cells clumped together in tangles, and some others had shrunk. What did the patient more than likely develop?**
- Alzheimer's Disease
 - Parkinson's Disease
 - Huntington's Disease
 - Age-related senility

- 42. Sally went to the pediatrician, and the doctor was preparing to give Sally her shot. Sally decides to bolt out of the exam room and hides behind the box of toys that are in the waiting room. The mother decides to use the authoritarian style of child-rearing, so what would happen?**
- Acknowledge Sally's feelings, help her to understand why the shot is necessary, and take her back into the exam room
 - Yell at her
 - Promise to buy her a new doll if she returns to the exam room
 - Pick Sally up and carry her screaming into the doctor's exam room
- 43. If a child desires to do things for him or herself, what is this called?**
- Autonomy
 - Self-regulation
 - Aggression
 - Self-control
- 44. Which term describes children making information a part of an existing schema?**
- Accommodation
 - Integrative Processing
 - Assimilation
 - Acceleration
- 45. During which stage of Piaget's development would a child be egocentric?**
- Concrete operational
 - Preoperational
 - Sensorimotor
 - Formal operational
- 46. Children's private speech is considered what, according to Vygotsky?**
- Babbling
 - Used for self-guidance
 - Antisocial
 - Unnecessary
- 47. A child watches a violent movie. After the movie is over, they go outside and reenact the aggression seen by the main character. What is this an example of?**
- Ecological theory
 - Psychoanalytic theory
 - Social learning theory
 - Role modeling theory
- 48. Remembering what you have learned about Freud, what complex would a child go through after lusting for his mother and then fearing castration by his father?**
- Electra complex
 - Anal fixation
 - Castration anxiety
 - Oedipal complex



- 49. Which play behavior is an example of a child who observes other children playing but does not participate?**
- Onlooker behavior
 - Parallel play
 - Associative play
 - Solitary play
- 50. According to Baumrind's four parenting styles, which style makes demands on a child with little or no nurturance?**
- Authoritative
 - Reluctant
 - Authoritarian
 - Uninvolved
- 51. According to David Elkind, which of these is a form of adolescent egocentrism?**
- Peer pressure
 - Imaginary audience
 - Academic achievement
 - Parental guidance
- 52. Which of the following terms is used to describe someone with a complete blending of male and female?**
- Homosexual
 - Heterosexual
 - Androgynous
 - Bisexual
- 53. Muscle deterioration occurs due to inadequate amounts of food over a long period; what is this called?**
- Kwashiorkor
 - Malnutrition
 - Vitamin C Deficiency
 - Marasmus
- 54. Of the following statements, which one is a true statement about the "Big Five" personality?**
- They remain stable during the middle adult years
 - They drop off as adults enter late adulthood
 - They are constantly changing and influx
 - They rarely change, if at all
- 55. Which of the following definitions best describes gender schemas?**
- Knowledge about the opposite sex
 - Beliefs that are passed down from one generation to the next
 - Standards of behavior and attitudes appropriate for males and females
 - Ideas that are solidified during early childhood



56. What does identity diffusion represent?

- a. Identity that is based on a false self
- b. Failure to achieve a stable identity
- c. Identity that is based on a false self
- d. Failure to integrate one's identity

57. Of the following options, which term did Chomsky use when describing a child's innate set of mental structures that aid in learning a language?

- a. SL: Social learning
- b. LAD: Language acquisition device
- c. CLD: Cognitive-language device
- d. ZPD: Zone of proximal development

58. Which adolescent in the choices will report the most negative body image?

- a. Sharon, a late-maturing girl
- b. Dan, an early maturing boy
- c. Jan, an androgynous girl
- d. Cherie, an early maturing girl

59. Of the answers below, which one describes the ability to associate information from one sensory modality with information from another called?

- a. Intermodal perception
- b. Bimodal perception
- c. Accommodation
- d. Object permanence

60. What is the ability to "think about thinking" called?

- a. Meta Thinking
- b. Mnemonics
- c. Metacognition
- d. Memory recall

61. What would Ralph's next step be to get rid of his disappointment if he had just resolved his oedipal complex by repressing the sexual feelings that he had had for his mothers for a couple of years?

- a. Focus on becoming skillful or competent in some area
- b. Find a seven-year-old girlfriend
- c. Try to be a lawyer like his father
- d. Swear off women for good

62. Samantha has a date for the prom but notices that she has developed a pimple on her face that isn't that noticeable. Samantha fears everyone, including her date, will see the pimple. What is she experiencing?

- a. Egocentric thinking
- b. Imaginary audience
- c. False-belief syndrome
- d. Personal fable



- 63. A girl in the second grade is known for her messy handwriting, has trouble remembering the alphabet, and continues to fidget during class to the point where she never stops. Which of the following choices may these symptoms indicate?**
- Down Syndrome
 - ADHD
 - Dysphasia
 - ADD
- 64. _____ is to curiosity as _____ is to out-going.**
- Extraversion/extroversion
 - Openness/conscientiousness
 - Openness/extraversion
 - Extroversion/openness
- 65. In Sternberg's Triarchic Theory of Intelligence, which of the following options includes grouping?**
- Analytical, creative, and practical
 - Hope, needs, and intelligence
 - Decisive, informative, and emotional
 - Hopefulness, intelligence, and spatial
- 66. Sydney likes to go to school, read and do science experiments. Which stage of Erik Erikson's stages is Sydney in?**
- Identity vs. Role Confusion
 - Initiative vs. Guilt
 - Autonomy vs. Shame and Doubt
 - Industry vs. Inferiority
- 67. During a basketball game, Jessup, who is 15 years old, wants to play her best because she feels that everyone is judging her skills. What is the term that is used to describe this feeling?**
- A personal fable
 - An imaginary audience
 - Perfectionism
 - Metacognition
- 68. What is more than likely to happen when authoritarian parenting is used to handle adolescents who are experiencing an identity crisis?**
- Moratorium
 - Foreclosure
 - Foreclosure
 - Confusion
- 69. According to Piaget's Concrete Operational Stage, a child who thinks becomes?**
- Reversible and flexible
 - Solidified for life
 - Irreversible
 - Focused on the future



- 70. Of the stages proposed by Elisabeth Kubler-Ross, what is the order of dying?**
- Denial/anger/bargaining/acceptance/depression
 - Anger/bargaining/denial/acceptance/depression
 - Denial/anger/bargaining/depression/acceptance
 - Anger/bargaining/acceptance/depression/denial
- 71. What is the most important task during early adulthood according to Erikson?**
- Developing close personal relationships
 - Separating from one's childhood identity
 - Achieving academic success
 - Landing the best job
- 72. Which teen in the options below displays the notion of the personal fable?**
- Arthur, who thinks everyone will notice the pimple on his forehead
 - Joe, who wants to be valedictorian, just like his father was
 - Josh, who constantly speeds while driving down the road
 - Stu, who thinks he will be president of the United States
- 73. According to Erikson, a male who is in middle adulthood and who fails to acquire a sense of generativity is likely to develop one of the following:**
- Role Confusion
 - Stagnation
 - Role Strain
 - Neuroticism
- 74. Connie, who is an artist, also loves to travel to new and exciting places, try new foods, and wear brightly colored clothing. Which of the following personalities best describes her?**
- Extroversion
 - Openness
 - Enlightened
 - Conscientiousness
- 75. What are grandparents considered when they live in the same neighborhood as their grandchildren, and they get to see them every day?**
- Overbearing
 - Authoritative
 - Involved
 - Independent
- 76. What do many women and minority workers experience that stops promotion and undermines their power?**
- The Glass Ceiling
 - Exclusion
 - Racism and Sexism
 - Patriarchal terrorism



- 77. Individuals who fail to achieve ego integrity will experience one of the following options?**
- Shame and guilt
 - Feelings of hopelessness and despair
 - Identity confusion
 - Low self-esteem
- 78. Which of the following choices is deemed the most advanced process of cognition?**
- Dialectical thought
 - Adult moral reasoning
 - Postformal thoughts
 - Neuroplasticity
- 79. A 65-year-old man runs a 100-yard dash and feels very short of breath. This never happened to him 20 years ago. This reflects which common physiological change that occurs with aging?**
- Increasing lung capacity
 - Lower testosterone levels
 - Asthma
 - Less cardiovascular efficiency
- 80. Lorna is a writer for a local entertainment newspaper and is really good at brain puzzles. Which one of the following intelligences would she test high in?**
- General intelligence
 - Crystallized intelligence
 - Fluid intelligence
 - Spatial intelligence
- 81. Which intelligence is the theory that intelligence is one basic trait that underlies all cognitive abilities?**
- Fluid
 - General
 - Crystallized
 - Lifespan
- 82. What does the “wear and tear” theory of aging suggest?**
- The degeneration of cells
 - The limited number of times that cells can divide
 - The decline in the numbers of reproductive cells
 - The comparison of the human body to a machine that wears out because of constant use
- 83. What does the climacteric mark the end of?**
- Reproductive capability
 - An organism
 - Life
 - The ability for a woman to become pregnant

- 84. An eating disorder marked by a person's obsession with being perfectly thin is called?**
- Binge eating
 - Bulimia nervosa
 - Anorexia nervosa
 - Depression
- 85. Rachel is helping take care of her mother, who is elderly, along with helping her daughter, who just recently became divorced. Rachel is more than likely going through what?**
- A midlife crisis
 - Dealing with a tight budget
 - Representing someone with low SES
 - It is a representative of the "Sandwich generation"
- 86. A family who experiences someone who has a long terminal illness typically experiences one of the following?**
- Depression
 - Anticipatory grief
 - Terminal grief
 - Recovery
- 87. Of the following choices, which one describes an individual who adopts the disengagement theory about aging?**
- As older adults slow down, they gradually withdraw from society
 - The more active adults are, the longer they will live
 - The more active adults are, the better their lives will be
 - Reduced social interactions lead to decreased satisfaction with life
- 88. Which theoretical proposition suggests that the lifespan of any species is subject to a genetically preprogrammed maximum of the number of times a cell can replicate?**
- The Hayflick Limit
 - Free Radicals Theory
 - Lifespan Developmental Theory
 - Cellular Fission
- 89. Which one of the following answers best describes Bandura's Notion of Personality?**
- Symbolic Interaction Theory
 - Social Learning Theory
 - Behavioral Theory
 - Role Modeling Theory
- 90. What are memories of historical events or remote events referred to as?**
- Working memory
 - Tertiary memory
 - Long-term memory
 - Short-term memory

91. How does Levinson describe adulthood?

- a. A long, stable period
- b. A period of constant changes
- c. Slow changes that frequently happen
- d. Stable periods that alternate with transitional periods

92. What is one of the most serious stresses a person can undergo?

- a. Losing a job
- b. Retirement
- c. Death of a spouse
- d. Remarriage

93. Which of the following best describes euthanasia?

- a. Acting on the last will and testament
- b. Allowing the patient to die naturally
- c. Allowing the patient to decide which drugs to use for their pain management
- d. The intentional administration of a legal drug dose by medical personnel to the dying patient

94. Why are adults in the middle-aged adult stage considered to be in the sandwich generation?

- a. They face the demands of caring for both their children and elderly parents
- b. They are responsible for taking care of their children and grandchildren
- c. They have to manage finances for themselves, their children, grandchildren, and parents
- d. It is now up to them to pass on family traditions to their children and grandchildren

95. Which of the following stages of aging, states that people age because the insides of their cells, normal metabolism produces unstable oxygen molecules that ricochet around the cells and damage DNA and other cellular structures?

- a. Senility
- b. Cellular Clock
- c. Free Radical
- d. Teratogen

96. Coping with late adulthood and earlier periods of life the same way is described by which theory?

- a. Developmental
- b. Continuity
- c. Psychosocial
- d. Lifespan

97. What are widows more than likely to do?

- a. Remain single
- b. Have better financial resources
- c. Remarry
- d. Become reclusive



98. Which of the following choices best describes grief?

- a. Crying uncontrollably after losing someone
- b. Practices that vary between cultures
- c. An abnormal reaction to death
- d. An emotional response to loss

99. Which of the following is NOT a stage of mourning?

- a. Anger
- b. Recovery
- c. Despair
- d. Shock

100. A patient who is 22 years old is terminally ill. After living long with the illness, she realizes that she will die and starts to tell her family about her wishes for her funeral services. Which stage of dying is this patient in?

- a. Denial
- b. Bargaining
- c. Acceptance
- d. Depression

101. What is the term that is used to describe children who have self-awareness and have control of their intellectual skills and abilities?

- a. Intelligence quotient
- b. Metacognition
- c. Preoperational Thought
- d. Trust

102. A mother nags her daughter to do her chores. Later in the week, she finally does her chores without the mother asking because she doesn't want to be nagged any longer. What is nagging an example of?

- a. Ratio interval schedule
- b. Positive reinforcement
- c. Punishment
- d. Negative Reinforcement

103. Mark is a 75-year-old male. Looking back at Erikson's theory of psychosocial development, which of the following is a concern of Mark?

- a. What should I do with my life?
- b. What is the meaning of my life?
- c. How can I make more friends?
- d. What can I do to increase the time that I have left?

104. Which of the following theories of aging states that all human genes are programmed to produce changes that bring about death?

- a. Lifespan Developmental Theory
- b. Wear and Tear Theory
- c. Hayflick Theory
- d. Psychoanalytic Theory



- 105. According to information processing theory, what is the role of selective attention in cognitive processing?**
- Selective attention filters and prioritizes sensory information for further processing.
 - Selective attention is solely responsible for retrieving stored memories.
 - Selective attention is responsible for encoding information into long-term memory.
 - Selective attention is a component of short-term memory.
- 106. Of the following options, which one describes the theoretical perspective of development being based on intrinsic sources of motivation?**
- Humanism
 - Psychodynamic
 - Ecological
 - Behaviorism
- 107. According to Dr. Findlay, all behavior is learned. She is not exactly interested in a person's mind and only studies what is observable and measurable. Which approach to psychology does Dr. Findlay use?**
- Psychoanalytic
 - Psychodynamic
 - Behavioral
 - Ecological
- 108. Lindsay's parents encourage their young daughter to ask questions, use her imagination, and give her freedom to choose activities to do. What are her parents encouraging?**
- Openness
 - Identity
 - Creativity
 - Initiative
- 109. Which of the following best describes the problem of cohort effects?**
- It is time-consuming and costly to study multiple cohorts simultaneously.
 - It's difficult to tell whether differences between groups are due to age-related changes or to the shared experiences of people born during that period of time.
 - One's cohort is constantly changing over time, creating problems for researchers.
 - Groups that are older may have greater life experiences than younger groups, making it difficult to explain group differences.
- 110. According to Thorndike's Law of Effect, when a behavior is pleasant, it is?**
- Less likely to be replaced
 - Less likely to cause avoidance
 - More likely to be stable
 - Less likely to cause issues later in life
- 111. During which stage of prenatal development does implantation occur?**
- Germinal
 - Fetal
 - Embryonic
 - Zygote

- 112. The ability to research the effects music has on memory depends on a couple of factors. One researcher has one group of test subjects who listen to music while studying a list of words, and the other group studies the list of words without music. The number of words each subject can remember is considered?**
- The independent variable
 - The fluctuating variable
 - The dependent variable
 - The memory variable
- 113. _____ studies are those in which the same people are tested at different ages.**
- Chronological
 - Cross-Sectional
 - Cross-Cultural
 - Longitudinal
- 114. James's father has been telling him ever since he was 5 years of age that he would one day come and work with him in his real estate office after he finishes high school. James told his father that he would much rather attend art school. What is James's identity status?**
- Achieved
 - Diffused
 - Foreclosed
 - Moratorium
- 115. Marcus is aware of this thinking and understands that he can use certain strategies to help him remember what he learns. What type of cognitive function is this?**
- Memory recall
 - Metacognition
 - Problem-solving
 - Abstract skills
- 116. Cindy is protesting the death penalty in her home state. Cindy believes that it is not moral for the government to decide who should live and who should die. Which one of Kohlberg's levels of moral development is Cindy functioning at?**
- Pre-conventional
 - Post-formal
 - Post-conventional
 - Philanthropical
- 117. Babies are likely to exhibit the Moro reflex when**
- a finger is placed on their cheeks
 - the bottom of their feet are tickled
 - they hear glass breaking on the floor
 - their arms are placed in a hugging motion

- 118. Why are studies on identical twins influential on gene-environment interactions?**
- They show more results than fraternal twins
 - Any differences must be attributed to the environment since they are genetically identical
 - Gene-gene interactions are studied more often in fraternal twins
 - It allows researchers to understand the difference between monozygotic and
 - dizygotic twins
- 119. Male menopause is what?**
- A sudden drop in reproductive ability
 - Does not exist
 - Is a decrease in sex drive
 - Exists only in men who are in late adulthood
- 120. When the body decreases its efficiency during the ages of 20-40, this is called what?**
- Wear and tear
 - Natural progression
 - Homeostasis
 - Senescence
- 121. The “nature” argument suggests that people socialize and behave in certain ways because of**
- the way they are born
 - the alignment of the stars
 - the way they are raised
 - the cultural expectations of the society
- 122. A 14-year-old male is responsible, makes independent decisions, and accepts the consequences of his behavior. The parents of the male used which type of parenting style?**
- Authoritarian
 - Permissive
 - Authoritative
 - Reluctant
- 123. How is menopause defined?**
- The beginning of a dramatic change in a woman’s reproductive system
 - The end of a woman’s reproductive capacity
 - Is in the middle of a dramatic change in a woman’s reproductive system
 - As an estrogen deficiency
- 124. Georgie lives next to a firehouse. At first, every time he sees lights or hears a siren, he jumps. But after a while, he blocks it out and doesn't even notice when the lights and sirens are going. This is an example of:**
- Development
 - Habituation
 - Learning
 - Dishabituation



- 125. John is a highly organized individual who keeps meticulous to-do lists, sticks to routines, and is always punctual. He believes in setting clear goals and working diligently to achieve them. He is also known for his reliability and responsible nature. Based on this, which of the Big Five personality traits is most likely a prominent characteristic of John?**
- Neuroticism
 - Openness
 - Conscientiousness
 - Agreeableness
- 126. Of the following statements, which one describes the research findings regarding personality traits through adulthood?**
- Personality traits usually change during a midlife crisis
 - Personality traits are generally stable over the lifespan
 - There is a greater stability of personality traits in childhood than in adulthood
 - There are more personality traits that develop later in life
- 127. Jazmyn experiences great satisfaction through nurturing, guiding, and teaching skills to her students. Which one of Erik Erikson's psychological tasks is Jazmyn dealing with?**
- Industry vs. Inferiority
 - Identity vs. Confusion
 - Intimacy vs. Isolation
 - Generativity vs. Stagnation
- 128. What is it referred to when one allows death to occur as a result of stopping life support?**
- Assisted suicide
 - Natural Death
 - Passive euthanasia
 - Last will and testament
- 129. When a child looks over and sees a truck, saying "truck" instead of using a full sentence is an example of what?**
- Motherese
 - Babbling
 - Underextension
 - Holophrase
- 130. Of the following answers, which one describes the difference between male and female friendships?**
- Male friendships tend to be more emotionally expressive, while female friendships are often based on shared activities.
 - Male friendships often involve less intimate sharing of personal matters, while female friendships tend to involve more open and confiding conversations.
 - Male friendships are typically centered around emotional support and communication, while female friendships revolve around shared interests and hobbies.
 - Male and female friendships are generally similar, with no significant differences in the way they are formed or maintained.

Practice Exam Answer Key

| | | | | |
|--------|--------|--------|--------|--------|
| 1. D | 2. A | 3. B | 4. B | 5. A |
| 6. D | 7. A | 8. A | 9. C | 10. D |
| 11. B | 12. C | 13. A | 14. D | 15. C |
| 16. C | 17. B | 18. A | 19. D | 20. A |
| 21. A | 22. C | 23. B | 24. D | 25. A |
| 26. C | 27. C | 28. B | 29. A | 30. D |
| 31. A | 32. B | 33. B | 34. A | 35. C |
| 36. D | 37. A | 38. C | 39. B | 40. B |
| 41. A | 42. D | 43. A | 44. C | 45. B |
| 46. B | 47. C | 48. D | 49. A | 50. C |
| 51. B | 52. C | 53. D | 54. A | 55. C |
| 56. B | 57. B | 58. D | 59. A | 60. C |
| 61. A | 62. B | 63. B | 64. C | 65. A |
| 66. D | 67. B | 68. B | 69. A | 70. C |
| 71. A | 72. C | 73. B | 74. B | 75. C |
| 76. A | 77. B | 78. A | 79. D | 80. C |
| 81. B | 82. D | 83. A | 84. C | 85. D |
| 86. B | 87. A | 88. A | 89. B | 90. B |
| 91. D | 92. C | 93. D | 94. A | 95. C |
| 96. B | 97. B | 98. D | 99. A | 100. C |
| 101. B | 102. D | 103. B | 104. C | 105. A |
| 106. A | 107. C | 108. D | 109. B | 110. B |
| 111. A | 112. C | 113. D | 114. A | 115. B |
| 116. C | 117. C | 118. B | 119. B | 120. D |
| 121. A | 122. C | 123. B | 124. B | 125. C |
| 126. B | 127. D | 128. C | 129. D | 130. B |

We hope you enjoyed learning about the development of us as people. The importance of this module is not just for you to be able to get your credits, but also to understand how people function and develop over time. See how you can apply the knowledge in real life, because that is the only way we truly learn psychology and understand the human behavior around us.

