

Chapter Review

Summary

The dramatic physical metamorphosis from newborn to toddler yields a human being who has quadrupled in birth weight by the second birthday and also significantly increased the proportion of body fat. However, weight gain that occurs too rapidly during this time period (a jump of 1 major centile band) puts the child at risk for obesity and insulin resistance. Parents and health care providers use the WHO and CDC international weight-for-age growth charts to monitor this pattern of development.

Breastfeeding, while not the preference of all new mothers and not an option for some mothers with specific medical conditions, is recommended by the American Academy of Pediatrics as the exclusive source of an infant's nutrition for his first six months. Breastfeeding supplies virtually complete nutrition to the infant, boosts immunity, minimizes allergies later in life, provides tasting exposures to the food that the mother is eating, is cost-effective, and requires few extra supplies when traveling with the infant. When solid food is introduced after 6 months, it is crucial for parents to provide healthy foods, as the feeding of healthy or unhealthy foods in infancy and toddlerhood triggers genetic mechanisms on a cellular level (metabolic rate, level of satiety, diabetes and heart disease risk) that will continue to activate throughout the lifespan.

While the number of infants and toddlers in the United States experiencing malnutrition is not nearly as high as in some developing nations, 8.6 million U.S. children struggle with food insecurity, ranging from eating less varied diets or receiving food from a food bank to suffering from reduced food intake or disrupted eating patterns. Long-term effects of food insecurity include anemia, lower cognitive ability, and insecure attachment. Two other major health concerns affecting infants and toddlers include spontaneous infant death, known as

sudden infant death syndrome, and injury from abuse, known as shaken baby syndrome or abusive head trauma.

Gross and fine motor capacities progress rapidly during the first three years, transforming a physically helpless newborn into a child who can walk independently, pick up objects, and begin to dress. Early motor development can be considered from a dynamic systems perspective, in which the baby's personal attributes and her environment create an interactive system that either supports or discourages the development of each new skill. The dynamic systems perspective helps to explain the distinct differences in gross motor development between cultures: Sub-Saharan African infants often reach motor milestones far in advance of European-American infants, in part because sub-Saharan African mothers expect early motor independence, believe that their children are capable of it, and provide massages, motor games, and specific exercises shortly after birth.

Both exogenous stimulation (external to the baby) and endogenous stimulation (internal to the baby and first activated during REM sleep) play critical roles in brain formation and in allowing the baby to accurately perceive sensory events. The capacities for vision, hearing, taste, smell, and touch are dependent on both types of stimulation as well as adequate sleep.

There is great diversity in sleeping patterns and arrangements, the use of vaccinations, and the introduction of toileting. Although sleep is a powerful driving force in children, many infants and toddlers display their uniqueness by developing a sleeping/waking cycle that does not mirror textbook guidelines, requiring parents to have a flexible mind in accommodating a child's needs. Parents also differ in philosophy regarding whether a child should sleep in a separate room or share a bed or room with the parents. Toilet training and elimination communication (EC) are two effective, yet disparate, approaches to facilitating a young child to use a potty for elimination. While most toilet-training methods recommend waiting until the toddler is ambulatory and showing specific signs of potty readiness, parents who use EC may introduce their infant to a potty shortly after birth, focusing on the constant communication between parent and child. Regarding the use of vaccines, not all medical professionals and parents concur with the immunization schedule recommended by the Centers for Disease Control and Prevention, with approximately one-fifth of U.S. parents delaying or refusing some or all of the recommended early childhood vaccines. People

generally have strong opinions for or against vaccine use, making this controversial topic an area for a counselor to navigate with cultural sensitivity.

Piaget's sensorimotor stage of cognitive development, from birth to 2 years, describes the process by which the infant experiences the world, learning information through senses and not by logic. The child progresses from the newborn stage of relying on reflexes, to accidentally noticing interesting things about the body and the world outside of the body, to experimentation and finally insight. Although Piaget did not believe that infants had object permanence (the ability to recognize that an object still exists even when it is removed from view) until 8 months, Baillargeon's studies suggest that 4-month-old infants have this ability.

Information processing theory often uses a computer model to provide a framework for understanding how an infant categorizes situations, creates memories, and becomes familiar with reoccurring stimuli. An infant best encodes information when comparing it to another object.

Infants and toddlers are capable of retrieving stored information by using both recognition and recall. They make meaning out of the world by engaging in object categorization, grouping items into broad categories. They demonstrate that they have become habituated to stimuli by looking at a familiar object for a shorter amount of time than when the object was novel.

Assessing an infant's cognitive ability is typically done by observing motor and perceptual skills with a test such as the Bayley-III. Often used for screening purposes, the Bayley-III predicts mental test performance in preschool, with very low scores strongly signaling later developmental problems. Infants who receive very low scores are provided with specialized interventions, as are infants and toddlers who are considered to be at-risk due to living in poverty or those who are identified with special needs.

The odyssey through language development has many linguistic milestones, beginning with the newborn's crying, an innate prelinguistic vocalization that serves to alert parents when the infant is in distress. Cooing and laughing emerge between 2 and 4 months, leading to babbling beginning between 5 and 9 months. A toddler comprehends words well before actually verbally producing those words, and a preverbal infant or toddler frequently uses gestures to represent words that the infant is unable to articulate. Some parents capitalize

on these gesturing abilities by exposing their child to sign language, thus increasing the communication between parent and child. The toddler usually produces first spoken word by 13 months and 2-word phrases between 18 and 24 months. Accompanying newfound speech is the ability to whine, an annoying amalgam of crying and speech.

Skinner's behaviorist perspective proposes that language development is dependent on experience and shaped through reinforcement. Bandura's social cognitive theory maintains that language is learned by first observing others modeling the language and then by using imitation. Chomsky's nativist perspective holds that the human brain is intrinsically wired for language with the learning acquisition device (LAD) system, a set of grammatical rules shared by all languages and hardwired into an infant's brain before she hears a spoken word. Parents can support their child's early language development by pairing words with objects, accurately tuning in to the infant's prelinguistic babbling, using social interaction instead of media to teach language, and by responding to their child with affirmative, encouraging statements.

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Chapter 5: Physical and Cognitive Development in the Infancy and Toddlerhood Years Chapter Review

Book Title: An Advanced Lifespan Odyssey *for* Counseling Professionals

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