



and helping the child gain the skills and knowledge to become a fully developed individual.

GENERAL PRINCIPLES OF DEVELOPMENT AND THE PSYCHIATRIC EVALUATION OF CHILDREN AND ADOLESCENTS

Chapter 1: Introduction to Developmental Psychology	10
Chapter 2: Theories of Development	25
Chapter 3: Physical Development	45
Chapter 4: Cognitive Development	65
Chapter 5: Language Development	85
Chapter 6: Emotional and Social Development	105
Chapter 7: Moral Development	125
Chapter 8: Personality Development	145
Chapter 9: Psychopathology in Children and Adolescents	165
Chapter 10: Assessment and Treatment of Children and Adolescents	185
Chapter 11: Special Clinical Considerations	205
Chapter 12: Psychopharmacology	225
Chapter 13: Principles of Treatment Planning	245
Chapter 14: Psychopharmacology	265
Chapter 15: Psychological Assessment	285
Chapter 16: Behavioral Assessment and Treatment	305
Chapter 17: Family Therapy	325
Chapter 18: Individual Therapy	345
Chapter 19: Group Therapy	365
Chapter 20: Preventive Services	385
SECTION III	
Special Clinical Considerations	405
Chapter 21: Psychiatric Emergencies in Children and Adolescents	425
Chapter 22: Child Neglect and Abuse	445
SECTION IV	
Treatment	465
Chapter 23: Principles of Treatment Planning	485
Chapter 24: Psychopharmacology	505

1 Overview of Development

Essential Concepts

- Children are not just miniature adults.
- Child development entails a complex interaction between genetic potential, biological capacities, and the nurturing environment.
- Assessment of developmental strengths (competencies), as well as psychopathology (areas of need), is essential to a complete psychiatric assessment of the child, adolescent, and his/her family.

Whoever touches the life of the child touches the most sensitive point of a whole which has roots in the most distant past and climbs toward the infinite future.

—Maria Montessori

DEVELOPMENTAL STAGES

What development is *not* is consistent and unalterable. The normal range of development is broad, and one stage does not neatly finish before the next can begin. However, recalling these stages is much more useful than merely studying for Board examinations. It keeps in mind the need to think developmentally, to consider the areas of development in which a child is doing well, and the areas in which he or she needs intervention. Although seeing hundreds of children (both typical and impaired) is the best way to begin to differentiate normal variations in temperament and fantasy from more concerning symptoms of psychiatric disorder, the tried and true developmental models, particularly that of Erikson, may be useful for the ongoing assessment of a child's ability to meet and master the developmental tasks at each age. Each time I assess a child or adolescent, I review in my own mind the developmental tasks for the age, and how the child is faring with respect to these. For children and adolescents, treatment is not merely focused on a specific diagnostic disorder, but

on providing interventions that address areas of developmental concern, and helping the child gain the skills and support needed to get on a healthier developmental trajectory.

A basic understanding of human development is fundamental to the psychiatric evaluation in general and most essential in the assessment of children and adolescents. An appreciation for the wide variability among children in terms of development will assist in identifying and targeting areas of developmental concern while minimizing the risk of overdiagnosis and overpathologizing. Normal reactions of one developmental period (such as stranger anxiety in a 1-year-old) when it occurs in another stage (such as similar severe fears in a 5-year-old) may suggest a disorder.

KEY POINT

I would like to emphasize at the very beginning of the book what I consider to be a key aspect of all of child and adolescent psychiatry which is frequently given short shrift. A thorough evaluation and treatment plan for a child, adolescent, or family needs to highlight areas of *strength and resilience*, not merely pathology. In child and adolescent psychiatry, many of the children we see have suffered severe psychosocial adversity, family chaos, abuse or neglect, have unsafe behaviors, and meet DSM-IV criteria for multiple disorders. In this context, sorting out the risk factors and pathology may dominate the therapeutic encounter. However, it is the assessment and appreciation of strengths that may most meaningfully build a therapeutic alliance, may provide our most accurate prognostic indicators, and may be the most useful method of choosing appropriate treatment modalities. I have found in each child or adolescent I assess or treat a unique inner "spark"—that part of her or him that is the healthiest, has the most hope, and is most amenable to treatment. Finding that "spark" within the patient may provide *insights far beyond those gleaned from diagnosing the disorder*.

Child and adolescent psychiatrists are, typically, first adult psychiatrists. It is thus easy to assume that children are just "miniature adults." A frequent error is in the supposition that our evaluations, diagnoses, and treatment plans can merely be "downsized" for the child or adolescent. In fact, the chronological unfolding of progressive capabilities and processes from infancy onward must be appreciated to understand and treat the patient as a whole. Treatments are different for individuals at different stages of development.

Theories of development have encompassed entire textbooks, so I will distill out the concepts that I believe are most essential in assessing children and adolescents who are referred for emotional or behavioral difficulties. The primary developmental theorists discussed will be Sigmund Freud (psychosexual stages), Erik Erikson (psychosocial stages), and Jean Piaget (cognitive stages). Additionally, some highlights of each of the developmental periods of childhood and adolescence will be mentioned, as well as risk factors for each stage. Table 1.1 compares the three developmental theorists.

PRENATAL DEVELOPMENT

Each person has 23 double helix strands of the genetic code for all physical characteristics and organ capacities in the body. Traits such as temperament and activity level also have a genetic basis. Although some genes have strong penetrance and express themselves in virtually all environments (such as eye color), much of development is the product of complex gene-environment interactions. Family history of development may give an indication of the genetic makeup and potential vulnerabilities of the fetus. Understanding the nurturing environment assists in gaining an appreciation for the unfolding of the genetic potential in a given individual.

The second trimester of gestation is when neurological and brain development occurs most rapidly. Thus, insults during this time may result in obvious or more subtle functional deficits for the baby. The clinician should inquire about the prenatal period. Exposure to substances (alcohol, substances of abuse, or medications), trauma, or severe stress during pregnancy may be significant to the developing fetus and be a source of vulnerability when the baby is born.

INFANCY (BIRTH TO 1 YEAR)

Sigmund Freud characterized infancy as the *Oral Stage* of development, during which time the mouth and eating were of dominant importance. This stage is marked by extreme dependency, urgency of needs, low frustration tolerance, and no consideration of others. Erik Erikson, in his psychosocial stages of development, postulated the normative crisis of infancy as

Age	Sigmund Freud	Erik Erikson	Jean Piaget
0-1	<p>Psychoanalytic drive theory Psychosocial stages</p> <p>Oral Stage (birth to 12-18 mo) Primary site of gratification and tension in oral area (mouth, lips, tongue) Sucking and biting</p>	<p>Trust vs. Mistrust (birth to 12-18 mo) Trust depends on reliability of care provided by caretaker Frustration associated with weaning</p>	<p>Sensorimotor Phase (birth-2 yr) Modification of reflexes; cross modal fluency Association between means and ends exist even if obscured from view Object permanence; objects still exist even if obscured from view Mastery motivation (10-12 mo); child seeks to master challenges</p>
1-3	<p>Anal Phase (12-18 to 36 mo) Primary site of tension and gratification is anal area Toilet training</p>	<p>Autonomy vs. Shame (12-18 to 36 mo) Increased capacities (motor, sphincter, language, etc.) Need for consistent limits from caretaker Shame occurs with lack of self-control Self-doubt evolves from parental shaming</p>	<p>Can infer cause and effect (1-2 yr) Schemas (units or categories of cognition) Assimilation (incorporation of new knowledge) and accommodation (modification of schema to adapt to new stimuli)</p>

TABLE 1.1. Comparison of Developmental Theorists

9 TABLE 1.1. Comparison of Developmental Theorists (continued)

Age	Sigmund Freud	Erik Erikson	Jean Piaget
3-5	<p>Phallic-Oedipal Phase (3-5 yr)</p> <p>Primary site of tension and gratification—genitals</p> <p>Castration anxiety, fear of genital loss or injury (interest in Band-Aids)</p> <p>Oedipus complex: Child desires intimacy with parent of opposite sex; to be rid of same-sex parent</p>	<p>Initiative vs. Guilt (3-5 yr)</p> <p>Initiative, enjoyment of activity and accomplishments</p> <p>Guilt over aggressive urges</p> <p>Resolution of oedipal conflict via role identification</p> <p>Sibling rivalry common</p>	<p>Preoperational Phase (2-5 yr)</p> <p>Language acquisition and symbolic reasoning</p> <p>Egocentrism; see world exclusively from own perspective</p> <p>Thinking is transductive (causality inferred from temporal or spatial proximity)</p> <p>Magic thinking (prelogical)</p>
6-11	<p>Latency Stage (6-11 yr)</p> <p>Relative quiescence of libidinal drives</p> <p>Sexual drives channeled into socially appropriate activities (i.e., school work, sports)</p> <p>Further development of ego functions</p> <p>Formation of superego</p> <p>Focus on same-sex relationships</p>	<p>Industry vs. Inferiority (6-11 yr)</p> <p>School is important</p> <p>Child is busy creating, building, accomplishing</p> <p>Danger of sense of inferiority and inadequacy of child; feels unable to compete with regard to skills (e.g., academic, sports) and status among peers</p> <p>Socially decisive age</p>	<p>Concrete Operations (6-11 yr)</p> <p>Emergence of logical, cause and effect thinking</p> <p>Reversibility of events and ideas</p> <p>Switch from egocentric to social speech</p> <p>Ability to see another's point of view</p> <p>Conservation of volume and quantity</p> <p>Rigid interpretation of rules</p>
11+	<p>Adolescent Genital Phase (11 or 12 yr and beyond)</p> <p>Final stage of psychosexual development</p> <p>Recapitulates earlier phases</p> <p>Separation from family</p> <p>Identity formation</p> <p>Biological capacity for orgasm and psychological capacity for true intimacy develop</p>	<p>Identity vs. Role Confusion (11-18 yr)</p> <p>Group identity (peers) primary</p> <p>Developing ego identity</p> <p>(sense of inner sameness)</p> <p>Preoccupation with appearance</p> <p>Moodiness and reactivity</p> <p>Danger of role confusion; uncertainty about sexual and vocational identity</p>	<p>Formal Operations (11 yr+)</p> <p>Hypothetical/deductive abstract reasoning</p> <p>Elaboration of information processing</p> <p>Metacognitive capacity; can think about thinking</p> <p>Ability to grasp concept of probabilities</p>

that of *Basic Trust* vs. *Mistrust*. The capacity for basic trust is achieved when the infant feels safe and well cared for by his or her caregivers. Infants gain a sense of security by having their physical needs cared for in a sensitive manner, according to John Bowlby. This caring and mutual bonding is the key to *secure attachment*.

Temperament is a person's inborn characteristic behavioral style. During infancy and the preschool years, temperament has moderate to high stability. Chess and Thomas have defined the dimensions of temperament. A temperamentally difficult child tends to demonstrate disrupted rhythmicity (irregularity of sleep cycles, feeding, and arousal states), social withdrawal, poor adaptability to change, intense emotional reactions, and negative mood. *Goodness of fit* describes a match between the parental expectations of the child and the child's temperament and innate capabilities. It is the mismatch that may predispose a child to (although not necessarily cause) behavioral or emotional problems. It is important to assess any mismatch between temperament and parental expectations, as early intervention may help reconcile the mismatch to improve developmental outcomes. All relationships entail interactions, and it is the reciprocal interactions between parent and child that determine the nature of the attachment process.

The infancy period is a time of rapid loss of cortical neurons, called *pruning*. An infant is born with a full complement of neurons, but they are not well interconnected. The pruning process allows for more specific interconnections to improve the efficiency of the nervous system—somewhat analogous to trying to get through a forest, which is slow and inefficient until a road is built by cutting down trees to make a well-organized path to the goal. Optimal stimulation (talking to the baby, looking at the baby, caring for the baby, and protecting the baby from extremes of neglect or chaos) can improve the efficiency of pruning, and thus assist in the developmental process. We now know that optimal stimulation during the early years of life is essential to optimal cortical efficiency. The brain is approximately one-third of its adult size at birth, and it grows rapidly, reaching 60% by approximately 1 year.

CLINICAL VIGNETTE

A mother brought her infant to the clinic due to failure to thrive. The 4-month-old infant (Thomas) was left buckled into his car seat on the other side of the room, awake but quiet. The mother sat down across from the intake clinician.

Interviewer: I notice Thomas is still in his car seat.

Mother: Yes, that way we are able to talk.

Interviewer: I notice that he is a little fussy. Perhaps you could hold him for a while?

Mother: He'll be quiet soon [went over and put a pacifier in his mouth].

Interviewer: It can be really demanding having an infant.

Mother: You can say that again [looking completely depleted].

The mother was quite depressed and emotionally unavailable to her child. This improved with her own treatment and regular meetings with in-home service professionals to help her learn how to care for and interact with her child.

Piaget characterized the infancy period as the Sensorimotor Stage, in which newborns demonstrate the ability to learn through making associations between means and ends. Beginning at about 6 months, object permanence evolves—the ability of a baby to know that an object does not cease to exist if it is out of sight. By the age of 1 to 2 years, the child can infer cause and effect. Schemas, or units or categories of cognition, organize memories. Thus, a dachshund is coded in the schema of “dog.” Assimilation (incorporation of new knowledge) or accommodation (modification of schema to adapt to new stimuli) characterizes the coding of information for more efficient retrieval.

Dramatic changes in development that appear 2 to 3 months after birth are seen in both infants' behavior and the behavior of the caregiving adults. It is at about 2 months of age that the infant begins to smile at a face (*social smile*) and to imitate facial expressions of others. Parents are typically elated at this new capacity and may describe their child as “becoming a real person.” The quantity of crying, which peaked at about 6 weeks, is beginning to diminish, and parents often report that, by this age, they are able to “read” (differentiate the cause of) their infant's cry. Even infants with colic (bouts of inconsolable crying totaling more than 3 hours daily for more than 3 days in any week in an infant that is otherwise healthy and well-fed) begin to calm, and colic usually disappears spontaneously by 4 months of age. Infants begin to babble at 3 to 4 months and to laugh by 4 months. At age 7 to 9 months, infants begin to act as if they understand that their thoughts, feelings, and actions can be communicated to, and understood by, another person, and they have strong preferences

for caregivers with whom they have established relationships. Stranger anxiety, which peaks at about 8 to 9 months, emerges as the infant becomes increasingly attuned to comforting, familiar caregivers and becomes uncomfortable with unfamiliar people.

Risk factors in the infancy period include prematurity or serious illness in infancy, with increased risk for developmental difficulties and disruption of the parent–infant bonding process. However, even very premature infants frequently do well when the medical issues resolve. Other risk factors in the child are autism (a primary disorder of social relatedness), feeding problems (poor ability to suck and eat), and cognitive or overall developmental delay. Parental depression or other failures of attunement to the needs of the child (substance abuse, extreme stress, parental conflict, etc.) are also risk factors in the infancy period.

PRESCHOOL (2–5 YEARS)

Sigmund Freud's *Anal Stage* is said to be from age 1½ to 3, and is thought to be associated with issues of control, orderliness, and cleanliness associated with toilet training. Erikson's psychosocial stage is that of *Autonomy vs. Shame*, in which a child may gain self-esteem through his or her increased capacities, whereas shame and self-doubt occur with lack of self-control and parental humiliations around toilet training. During Freud's *Phallic-Oedipal Phase* from 3 to 5 years, the primary site of tension and gratification is the genitals, and fear of injury, jealousy, and rivalry with the same-sexed parent are hallmarks. Erikson coined this the stage of conflicts between *Initiative and Guilt*. Initiative is the enjoyment of activity and accomplishment, whereas guilt is overaggressive urges that emerge at this stage. Role identification with the same-sexed parent is thought to occur at this time. This may also be known as the "Band-Aid" period, as even a miniscule injury requires the caring application of a Band-Aid.

Piaget's *Preoperational Stage* (ages 2–6) is characterized by explosive language development that ushers in the ability to reason symbolically rather than motorically, as in the sensorimotor period. The capacity for language development is genetically determined, but it is clearly enhanced by parental communication that is sensitive to the child's emerging abilities. Reasoning at this stage is transductive; that is, attribution of causality is based exclusively on temporal or spatial juxtaposition.

Judgments are dominated by immediate perceptions. Thinking is egocentric: the young child is conceptually unable to view events and experiences from any point of view but her own. Pretend play and fantasy thinking are common. This period is often characterized by imaginary friends and talking pets.

Risk factors for psychopathology at this age include severe behavior problems in the preschool period, which may predict multiple difficulties into adolescence. However, some defiant and aggressive behavior is normative in this age group, as children struggle to define themselves as unique individuals (sometimes referred to as the "terrible twos"); Developmental delays may become more obvious at this time, including language and motor difficulties, social difficulties, or the ability of a child to manage stress and frustration. Protective factors operate as well. For example, stable family functioning can prevent early temperamental difficulties from developing later into behavioral disorders.

SCHOOL-AGE (6–12 YEARS)

The *Latency Stage* in the elementary school years was called this by Freud because of the relative lack of sexual drives, thought to be channeled into socially appropriate activities, such as school work, sports, and games. Erikson described this as the *Industry vs. Inferiority* stage, in which the child is busy creating, building, and accomplishing. There is the danger of a sense of inferiority and inadequacy if a child feels unable to compete with regard to life skills, such as sports, academics, and social skills. For this reason, it is essential to diagnose learning disorders and help children gain the help they need to deal with them. Children who suffer from undetected developmental difficulties in any area may suffer from lowered self-esteem, as they compare their lack of accomplishment to the accomplishments of their peers. This is the age of best friends.

The *Concrete Operations* stage of cognitive development is postulated by Piaget for the ages of 6 to 11. The child in this stage gains the cognitive skills needed for basic logic, an understanding of cause and effect, and can begin to appreciate the perspectives of others—precisely the abilities that are necessary to benefit from the grade-school curriculum. The acquisition of the concept of conservation of volume and quantity occurs in this stage. This is when a child can appreciate that a tall, thin beaker holds the same amount of water as a short, fat one when it is poured back and forth between the two.

The developmental challenges of school may be particularly difficult for the fearful child, the overactive or inattentive child, or the poorly socialized child. Children who lack social skill, who have cognitive, learning, or coordination difficulties, or lack the ability to sit and pay attention and to control impulses and emotions may be quite frustrated in school, and may suffer from negative feedback from teachers and peers. Children who are anxious may develop separation anxiety and school-related anxiety, usually demonstrated by “tummy aches” or other complaints of illness in the morning prior to school. Additionally, teasing or bullying by peers may traumatize a child. Sociofamilial risk factors include poverty, single-parent family, abuse, chaotic home environment, or lack of supervision. During the school years, the prevalence of psychiatric disorders of all types increases.

CLINICAL VIGNETTE

Sally is a 7-year-old girl who is refusing to go to school. Her teacher describes Sally as a rather anxious, but also very oppositional girl. She refuses to do her work, won't participate in group reading or discussion, and goes to the nurse frequently with vague aches and pains, stating that she is sick and must go home. Sally has started to say unkind things to her best friend as well. Upon close assessment, you find out that Sally is unable to read. You request testing—results suggest that she is quite bright, with a severe reading disability (which is particularly difficult, because her best friend is an avid reader). Once this is identified and addressed, the oppositional and avoidant behaviors begin to resolve.

ADOLESCENCE

Adolescence is the developmental phase that spans the transition from relatively complete, childlike reliance on parents to nearly complete self-reliance for managing one's own life. Adolescence starts with puberty, the physical changes that initiate sexual maturation. In girls, puberty typically begins between the ages of 8 and 13, and in boys between 10 and 14. Sexual maturity for both boys and girls has been classified by Tanner, from Stage 1 (preadolescent) to Stage 5 (fully sexually mature).

Freud termed adolescence the *Genital Phase*, in which there is a recapitulation of earlier phases. Identity formation, separation from the family, and the biological capacity for orgasm and the psychological capacity for true intimacy develop. Erikson's *Identity vs. Role Confusion* captures the developmental task of this stage. Identification with a peer group begins to supplant that of the family. While adolescents may be preoccupied with appearance and demonstrate moodiness and emotional reactivity, it is also a time when they are gaining a sense of more permanent personal identity, values, and goals.

For Piaget, cognitive growth in adolescence ushers in the *Formal Operations* stage. The adolescent gains metacognitive capacity—the ability to think about thinking. The ability to use hypothetical and deductive abstract reasoning and the elaboration of information processing emerge. Many adolescents begin to think more deeply about religion, philosophy, and purpose.

Although adolescence can be a very turbulent time for many, high levels of distress are not the norm. Epidemiological studies do support the premise that anxiety and depression rise steeply during adolescence, particularly among girls. The four most common causes of death in the United States for teenagers are accidents, suicide, homicide, and cancer. Risk-taking behavior, which is relatively common in adolescence, as well as experimentation with drinking and illicit drugs, increases the likelihood of serious accidents. Suicide rates are higher for White males than for non-White males or females, although suicide gestures and attempts are higher in females. Homicides and gun-related deaths are particularly high for adolescents of color.

Adolescence is a time of increased risk for the onset of serious psychiatric disorders. Incidence rates for a number of psychiatric illnesses either peak or display a significant increase during adolescence. These include depression, bipolar disorder, panic disorder, obsessive-compulsive disorder, anorexia and bulimia nervosa, substance abuse, antisocial behavior, and schizophrenia. Illness in adolescence may evolve from the combination of biological vulnerability and adversity in family and community environments. Adolescent affiliation with a “bad crowd” may be an influential, separate variable that is associated with delinquency and social adjustment problems later.

Protective factors (resilience) are “multi-determined” by the personality disposition of the teen, a supportive family, and an external support system. Good physical health, normal or high IQ, and economic advantage may also play a protective role.