Part One
The Foundations

1

Child and Adolescent Development: Normal and Atypical Variations

Introduction

What is normal behavior and when does deviation from the norm become serious enough to warrant a label of "abnormal" behavior? Can behavior be considered normal in one context and abnormal in another? Can behavior be considered "normal" at one age and "abnormal" or atypical at another age? These are some of the questions that will be addressed throughout this book and in the case study in this chapter.

A case in practice

As you read the case study in the sidebar, ask yourself the question: ***"How serious is Pat's problem?"*** Pat is experiencing problems in a number of different areas, including social, emotional, and educational. If you were a clinical or educational/school psychologist, and Pat's mother or teacher asked if you thought Pat was in need of intervention, how would you determine the severity of Pat's problems and what important information would you need to know? ***What is the first question you should ask?*** The first question should be: *How old is Pat?* Because children are growing and changing, it is imperative to know what the expectations are for Pat, given the age level. If Pat were a preschooler, the mood swings would likely be due to immaturity in emotional control and emotion regulation which is in the process of being

Case study of Pat: an introduction

Pat is experiencing problems in school. Pat never seems to finish assignments on time and takes forever to get started on a task. Yesterday, Pat sat for 15 minutes staring into space, before putting pencil to paper.

When Pat enters the classroom, you can tell immediately if it is going to be a good day or a bad day. One day, Pat can be moody, irritable, and very hard to get along with, and on another day, Pat can be happy and almost giddy with excitement. However, on these occasions, it is very easy for Pat to escalate out of control.

Because of the mood swings, Pat is not popular with peers, and basically has no friends, at school. As a result, Pat is often on the sidelines watching as others socialize and have fun.

Fortunately, Pat is a member of the community soccer team, which affords an opportunity to engage in activities with peers on the weekend.

Clinical and Educational Child Psychology, First Edition. Linda Wilmshurst.

Table 1.1 Guideposts to the study of child development

1. Development unfolds in a *predictable* pattern.
2. Patterns of behavior and skills (thoughts, emotions, motor skills) *build upon previously acquired skills* and progress *towards increasingly complex variants* of these behaviors throughout childhood and adolescence.
3. Although children pass through similar stages or sequences of development, the *rate of mastery* of various milestones can vary widely due to *individual differences.*
4. Some factors that can *influence* a child's rate of skill acquisition, for better or worse, include: **child variables**, such as *heredity*, *temperament*, *cognitive ability*, *motor*, *affective*, *and social maturation*; and **environmental variables**, such as *parenting practices*, *socio-economic status*, *peers*, *quality of schooling*, *culture*, as well as *availability of and access to community resources.* As a result, development is the outcome of the on-going **transactions** between the child and his or her environment.
5. In the **transactional model** (Sameroff and Chandler, 1975), child and parent outcomes are seen to be the result of the on-going interplay of child and environmental factors that influence, respond to, and adapt to changes on several **ecological** levels (Bronfenbrenner, 1979). The application of these models as an over-arching framework for understanding child development across biological, psychological, and social domains has resulted in a complex and comprehensive perspective: the **ecological transactional model** (Cicchetti and Lynch, 1993).

stabilized during this period. However, if Pat is an eight- or 10-year-old child, then our expectation would be for significantly more maturity in areas of emotional control and self-regulation. Additionally, the age of the child would determine which assessment instruments should be used and the type of pre-assessment information that might be useful. Initially, regardless of the focus of concern, understanding the problem requires a fundamental understanding of the nature and course of development.

The nature and course of development

The study of human **development** in the formative years focuses on **predictable** "age-related changes that are *orderly, cumulative and directional*" (DeHart, Sroufe, and Cooper, 2004, p. 4). Knowledge of normal development is a prerequisite to understanding the extent and nature of any deviations from the norm that may exist in social, emotional, or behavioral functioning. In normal development, skills and competencies build on previous foundations, becoming increasingly refined and complex. It is from this predictable framework that deviations in the acquisition of developmental milestones (*physical*, *cognitive*, *behavioral*, *emotional*, *social*) can be assessed using normal developmental expectations as the guide.

There are several guiding principles from the study of **normal development** that have significant implications for understanding deviations in child development from a clinical and educational perspective. Some of the salient features are presented in Table 1.1.

Transactional processes

The term "transactional" is used to refer to the "interrelations among dynamic biological, psychological and social systems" that provide the necessary

framework for the "ongoing and multiple transactions among environmental forces, caregiver characteristics and child characteristics as dynamic, reciprocal contributions" that increase or decrease the likelihood of well-being or psychopathology (Cicchetti and Toth, 1998, p. 226).

The nature of developmental change

Historically, developmental change has been conceptualized as following either a **discontinuous** or **continuous** course, while the major contributing forces have been attributed to the influences of **nature** (*heredity*) or **nurture** (*environment*). Within this framework, outcomes in the form of milestones or benchmarks assist in making comparisons between levels of achievements mastered relative to predicted developmental expectations. The following discussion looks at how theorists have conceptualized the nature of developmental change over time.

Discontinuous versus continuous change

Discontinuous change Theorists who propose a **discontinuous** pathway conceptualize development as a series of steps or stages which involve the mastery of levels that are distinctively different at each stage. Theoretical models that share this framework include, but are not limited to: Piaget's stages of cognitive development, Freud's psychosexual stage theory, and Erikson's stages of psychosocial development. Within this framework, theorists view change as *quantitative* and *universal* with a consistent set of sequences and a fixed order of progression, regardless of cultural or global context.

Continuous change Other theorists believe that developmental change progresses in a smooth and **continuous** manner. For example, *information processing theorists* would be interested in studying how a child's memory strategies evolve over time, as the child adds new strategies and skills to his or her repertoire. Memory strategies adopted later in development would be *qualitatively* different from earlier methods used and would build on earlier skill sets. Within this framework, *behavioral theorists* would also consider the development of behavioral patterns as a continuous process of increasingly complex skills that build upon earlier patterns.

Nature versus nurture: historical beginnings One of the most controversial themes surrounding child development that has sparked endless debate is the relative contribution of **nature** (heredity) versus **nurture** (environment).

Nature On one side of the historical debate, the eighteenth-century French philosopher Jean-Jacques Rousseau challenged assumptions regarding the importance of the environment for one's development and argued that nature was the supreme influence over the course of development. According to Rousseau, if parents were to adopt a **laissez-faire** approach (leaving the child alone and not interfering), the child would unfold naturally and blossom like a flower. For Rousseau, development was best represented as a series of stages (infancy, childhood, late childhood, and adolescence) that were programmed to unfold in a predictable pattern (discontinuous process).

Nurture On the other side of the debate, proponents supported the views of the seventeenth-century English philosopher John Locke, who argued for the importance of "nurturance" in child rearing. According to Locke, children begin their existence as a **tabula rasa**, or blank slate, and are dependent on those around them to nurture their existence by filling their slates with knowledge. Locke would have been supportive of change as a continuous process, evident in the increasingly complex changes that result under the tutelage of adult mentors.

Nature's child Just prior to 1800, a 12-year-old **feral** child was discovered in a forest in Aveyron, France that would put the nature/nurture debate to the test. A medical student, Jean Itard, took the *wild boy of Aveyron* into his home and devoted years to an attempt to civilize the boy whom he named Victor. However, after many years of instruction, Victor made minimal progress in improving his language and social skills. Victor's late discovery and subsequent failure to acquire language not only stressed the importance of **nurture** (early environment) on development, but also suggested the existence of critical or **sensitive periods** for the acquisition of certain skill sets.

Feral children today

Dramatic evidence of the importance of nurture continues to come forth in the occasional reports of "feral" children (children raised in isolation or by animals) who are discovered living in the wild or in severe isolation (cases of severe confinement and abuse). Support for the importance of early environmental stimulation is apparent, since the feral children often demonstrate significant and irreversible developmental delays.

Nature and nurture: contemporary trends Today, theorists focus on the dynamic ***interaction*** between nature and nurture. While it was once thought that the direction of influence was primarily unilateral, from the parent to the child (parent → child), social cognitive and social learning theorists such as Albert Bandura (1986) expanded this notion to emphasize the **bidirectional** nature of the process, where the parent influences the child but the child is also instrumental in influencing responses from the parent (parent ←→ child). Furthermore, influences were seen to be evident in three important contexts, including the environment (persons and situational events), personal/cognitive factors (temperament, affect, biological factors), and behavior (see Figure 1.1).

In Bandura's social learning model, **reciprocal determinism** represents the dynamic interchange between the person, the behavior, and the environment. This model of **triadic reciprocity** encompasses an on-going process where individuals adapt and adjust behavioral responses to changes in environmental demands by adjusting their cognition, affect, and beliefs in responses to feedback. A scenario that follows Bandura's model would include, for example, parents (*environmental*) who attempt to improve a child's weak social skills (*personal/cognitive factor*) by enrolling the child in a social group experience to improve social behaviors (*behavior*), or a teacher who provides remedial academic support (*environment*), for a student whose academic self-esteem is low (*personal factor*) in order to improve on-task behavior and academic

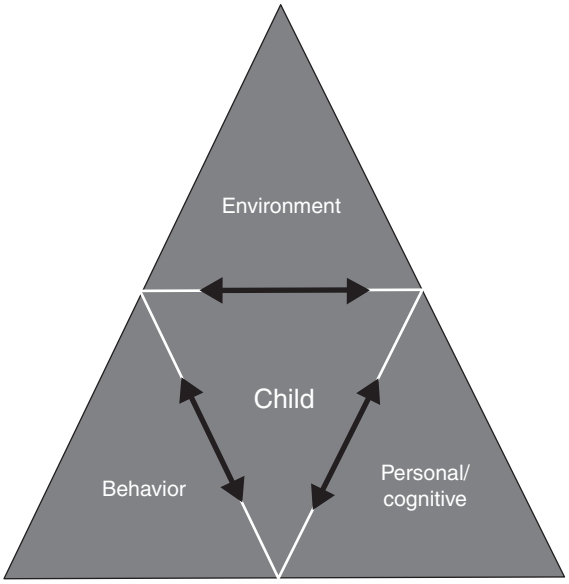

Figure 1.1 Reciprocal determinism.
According to Bandura's (1986) theory of reciprocal determinism, the contexts that can influence a child's behavior include: the *environment* and potential reinforcers (people, situations, physical surroundings), *personal/cognitive factors* (temperament, response style, cognitive-developmental level, which influence beliefs, expectations, and future responses), and *behavior* (responses that may or may not have been reinforced in the past. It is important to note that the arrows are bidirectional, in that a response in one area will impact responses in another and vice versa.

success (*behavior*). Although Bandura's model increased our understanding of the reciprocal and triadic nature of influences, the model did not address how biological or maturational factors might impact this process. More recently, theorists have focused on the **transactional nature** of the process (i.e., *influences of change are themselves changed in the process*) and have attempted to incorporate this model into a developmental framework (Cicchetti and Lynch, 1993).

Transactional processes in action: a case example

After careful deliberation, Jane decides to attend a university in Paris despite the fact that the majority of her friends will remain in London and she is not completely fluent in French. Her choice represents the starting point for a number of experiences and changes that will be very different from what she would have encountered had she remained in London. Furthermore, the resulting changes (attitudes, behaviors, her manner of dress and language) will also exert their influence on how she responds to her environment and how those in her environment respond to her. Jane's case is an example of the transactional process in action.

As will be discussed in *Chapter 2*, the first few years of life represent a time when the developing brain is highly vulnerable to environmental stimulation, as new neural connections are being created, and old, under-stimulated pathways are being discarded. Research has informed us that the quality of early stimulation, both mentally and emotionally, can have a profound and often prolonged influence on later development. There is also evidence to suggest that early emotional trauma may cause profound changes in one's future ability to respond to stressful situations. For example, elevated levels of the neurotransmitter **norepinephrine** and the hormone **cortisol** may, over time, alter the ability of the **hippocampus** (the portion of the brain that regulates stress hormones) to adapt to stressful circumstances (Bremner, 1999).

The high cost of living in an orphanage

O'Connor *et al.* (2000) studied severely deprived children from Romanian orphanages who were subsequently adopted into homes in the United Kingdom. The study compared outcomes for children who were adopted in the first six months with those that had remained in the orphanage for up to two years. Results indicated that although all the children demonstrated significant improvement, those who had been at the orphanage longest (for two years' duration) continued to experience significant cognitive impairment four to six years post adoption.

In a discussion of the impact of environmental and biological influences on development, Bronfenbrenner (2001) discusses the results of a study conducted in the Dutch city of Nijmegen, by a developmental psychologist (Riksen-Walraven, as cited in Bronfenbrenner, 2001). In this study involving 100 nine-month-old infants, parents were given a "Workbook for Parents" designed to reflect one of three conditions: a stimulation group, a responsiveness group, and a combined group. In the stimulation group, parents were advised that stimulation was the key to positive growth and their workbook contained a number of activities for parents to direct and promote engaged learning. Parents in the responsiveness group were instructed, much as Rousseau would have advised, to let the children "blossom" on their own, not to interfere or direct, but to provide opportunities for self-discovery. Workbooks for the third group of parents contained a mix of the two approaches.

Results revealed that children in the responsiveness group demonstrated the most significant gains on tasks of exploration and learning, followed next by the stimulation group, and lastly, the combined group. Furthermore, long-term follow-up, at 7, 10, and 12 years of age, revealed lasting effects for the responsiveness group, with teachers rating these children as more "competent and skillful" than peers in the other two groups; however, this was true only for the girls, and not the boys. The authors reasoned that during the course of the experiment (which took place in the late 1970s and 1980s), parents' beliefs in the need for responsiveness strengthened their parenting practices by allowing females far more independence and exploration than would have taken place originally. The experiment was a testimony to the powerful effects that can occur in interactions between biology and the environment. In *Chapter 2*, the

focus will be on the nature of theoretical models and how these different perspectives contribute to our understanding of child and adolescent development from a variety of different perspectives: biological, cognitive behavioral, psychodynamic, and parenting practices and family dynamics.

Milestones and periods of development

Milestones in development represent benchmarks for developmental change. Based on the assumption that development proceeds through a predictable set of skills that are acquired, on average, at certain age levels, it is possible to chart an individual child's progress relative to "normal" peer development in several areas, including: social, emotional, cognitive, and behavioral expectations.

Periods of development and expectations for change

Investigators have charted the course of normal development, highlighting milestones (benchmarks) that are predicted to occur within a given range of age-related expectations. Given a child's age and stage of development, it is possible to compare a child's progress relative to normal expectations concerning physical, cognitive, behavioral, emotional, and social development. The actual age ranges included in each stage of development can be arbitrary; however, most sources divide child and adolescent development into five stages:

- infant (0–12 months);
- toddler (12–30 months);
- early childhood or preschool-age (21/2–5 years);
- middle childhood or school-age (6–10/11 years);
- adolescence (11/12–19 years).

The topic of developmental milestones will be addressed at greater length in *Chapter 3* (which addresses milestones in early childhood and school-age children) and again in *Chapter 4* (adolescence).

Risk and protective factors

We know that there are several factors that can place children and youth at increased **risk** for difficulties, behavior problems, and school failure, such as: low birth weight, having a difficult temperament, living in an impoverished neighborhood, attending poor quality schools, adverse family conditions, and negative peer influences (Bates *et al.*, 1998; Breslau, Paneth, and Lucia, 2004). However, we also know that there are **protective factors** that can help buffer an individual from harm, such as: above average intelligence, supportive parents, and social competence (Williams *et al.*, 1990).

In our opening case study, *was Pat a boy or girl?* If you said that Pat was a boy, you have just placed Pat at increased risk for having a mental health problem, since being male is a risk factor (Rutter, 1989). However, the fact that Pat is involved in sports, and can share activities with peers, provides a protective buffer (Bearman and Moody, 2004). If, on the other hand, Pat is a girl, then she would be at increased risk for developing an eating disorder, depression, and suicidal ideation, since girls who feel

isolated and friendless have twice the risk of suicide than their peers (Bearman and Moody, 2004). Throughout the text, risks and protective factors will be discussed, as they relate to the problems and challenges that children and youth face.

Determining the nature and severity of problems

The severity of a given problem or behavior can be evaluated by determining: the **frequency** of the behavior (e.g., *Does the behavior occur on a daily, weekly basis?*); the **duration** of the behavior (*Is the behavior recent versus on-going?*); and whether the behavior is **pervasive** across situations (*Is the behavior evident at home, school, or on the playground?*). Finding answers to these questions will provide an increased understanding of whether the problem represents an adjustment reaction or is a chronic response of a more serious and persistent nature.

Adjustment disorders are a temporary response to a *known* stressor, such as a relocation (e.g., a change of school). Most individuals with adjustment disorders recover within a relatively short period of time (six months), once they have developed the necessary skills to cope with the change. However, for some, the stress caused by the changes may be overwhelming and mark the beginning of a more serious and progressive decline in mental health. In this book, common stressors are identified in a number of different contexts, such as school (transitions), at home (parental or sibling conflict), or peer relationships. These stressful life events can place preschool and primary school-age children and adolescents at increased risk for more serious problems, if they are unable to develop successful strategies to cope with the stressors (*Chapter 6*). In adolescence, peer pressures are discussed that can place some youth at increased risk for opting out of a more traditional role, choosing a path that leads to identity formation as part of a street gang.

In the opening case study, readers were introduced to Pat. However, in the initial case presentation, there was little information given about Pat's age, gender, and family circumstances. Consider the additional information about Pat given in the box.

Case study of Pat: additional information

Pat is a 12-year-old male who lives with his mother who is a single parent. They live in an impoverished neighborhood, and his mother works long hours to make enough money to support them. Pat has no siblings, rarely sees his father, and has been struggling academically for the past two years. With all the physical and emotional changes taking place with the onset of puberty, Pat is having increased problems with regulating his emotions and is becoming increasingly moody. An increase in his academic workload has only added to his problems.

What is the next step? Given the severity of the problem, Pat's mother would be well advised to contact the school psychologist or a private clinician to pinpoint the nature of the problem and determine how significantly Pat's problems deviate from the norm. In addition to interviewing Pat's teachers and parent, there are a number of different assessment instruments available, including: psychometric assessment of intelligence, learning, cognitive, personality, and neuropsychological functioning; behavioral rating scales, projective tests, and tests of academic performance. The psychologist may

also want to observe Pat and conduct a functional behavioral assessment to identify problem behaviors and the context in which they are occurring.

Results from the comprehensive psychological assessment reveal that Pat has a number of difficulties that are contributing to his problems. Pat has problems with inattention, concentration, sustaining attention for effortful tasks, disorganization, ease of distractibility, and follow-through to task completion. There are also mood fluctuations that range from irritability to giddy behaviors, evidence of grandiose beliefs, incessant talking, and racing thoughts. Socially, Pat feels isolated at school, although he is grateful that he can hang with his soccer buddies after the games. Although Pat does not admit to suicidal ideation, scores on the depression inventory are a cause for concern. Academically, Pat is scoring approximately two grades below level, despite intelligence in the high average range.

Diagnosis and classification

What is the benefit of a diagnosis?

At this point, we have confirmed that Pat has a number of significant problems. However, the specific nature of the problems, what is causing the problems (etiology), and how the problems can best be treated are not self-evident. As you read this book, the importance of a correct diagnosis will become increasingly apparent. Once a diagnosis is made, then an entire body of pre-existing knowledge becomes available to inform professionals about the nature and typical course of the disorder and the best empirically supported treatments available, clinically, or the best intervention plans that can be executed within the school setting.

Diagnosis from a clinical perspective There are two major systems of clinical classification for diagnostic purposes: the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), published by the American Psychiatric Association (APA, 2000) and the *International Classification of Diseases* (ICD), published by the World Health Organization (WHO, 1992). The classification systems provide a list of symptoms and conditions that must be met in order to be given a specific diagnosis. These two systems are **categorical** systems (an either/or system or binary system) that the practitioner uses to decide whether conditions are met (does the client meet the criteria?) to warrant a diagnosis. While the DSM is used primarily in North America, the ICD is used widely throughout Europe.

Another method of classification that is not categorical and may be more conducive to describing child and adolescent problems is the **dimensional classification system**, which conceptualizes behavior along a continuum of severity. Information about behavior is obtained by having parents and teachers complete behavioral rating scales to indicate the extent to which a given behavior (e.g., playing alone) is evident (never, seldom, often, always). Once scored, these scales often generate a behavioral profile which compares the child's scores for each of the behavioral categories assessed (e.g., anxious/depressed; attention problems; social problems) with what is expected, given the child's age and gender. More information about each of the classification systems is available in *Chapter 5*.

Diagnosis from an educational perspective From an educational perspective, Pat's progress could be monitored and an observational assessment carried out to

determine the factors within the classroom environment that exacerbate the difficulty he is experiencing. There may be a number of classroom- and curriculum-related factors that can be adapted to alleviate some of the pressure on Pat. Factors such as length of tasks, expectations, pace of work, type of lessons, and range of lessons can all be adjusted to accommodate his difficulties. In addition, there are many curriculum changes and methods of lesson delivery that can be altered to assist Pat with his learning problems and make his school experience more successful.

Diagnosis and mental health Pat's symptoms possibly match criteria for a number of different disorders, primarily: attention deficit hyperactivity disorder (ADHD) (as it is called in the DSM) or hyperkinetic disorder of childhood (HDK) (as it is called in the ICD), bipolar disorder (BD), or depression. However, prescribing medication for ADHD/HDK could escalate symptoms of BD, causing violent aggressive outbursts, so it is very important to establish a differential diagnosis. In this case, family history could provide valuable information, since heritability is high in BD. Research has shown that if one parent is diagnosed with BD, there can be a 30–35% risk to the child of having the disorder (Chang, Steiner, and Ketter, 2000). According to Pat's mother, Pat's father was diagnosed with BD in his early twenties and the reason that their marriage broke up was due to his wild mood swings and his refusal to take medication to treat the disorder. Given the history of BD in the family, Pat is at increased risk for BD, a disorder that has alternating episodes of depression and mania. Tests of cognitive function also suggest a learning disability which explains why he has so much difficulty with written expression. Pat also demonstrates another common challenge in working with children and adolescents, which is the tendency for this population to exhibit **comorbidity** (more than one disorder concurrently).

One of the limitations of the current versions of the ICD and DSM classification systems is that they have relatively few diagnoses that are specifically for children, and while children may have some symptoms similar to adults, symptoms often can change relative to the child's developmental level. For example, *generalized anxiety disorder* (GAD) is a disorder characterized by high levels of worry that is "free floating," not attached to any specific cause, and unreasonable. However, while a child might be worried about not doing well at school, or not being liked by friends, an adult might worry that they may become ill, or get into a traffic accident. Depression is another example of how disorders may manifest differently in adults and children. While depression can often be evident in symptoms of sadness, self-blame, and fatigue in adults, it is often expressed as *irritability* in children.

Because of the emphasis on development in this book, the various disorders are presented and described as they would appear during different developmental levels and, rather than adhering to verbatim accounts of criteria from the DSM and ICD, characteristics will be described as they relate to how these problems manifest at different age levels. At the end of this chapter, readers can find an outline of the goals of the book and the presentation format.

Theoretical frameworks: questions of etiology and intervention

An investigation of developmental issues and concerns would not be complete without providing a foundation from which to examine how and why behaviors potentially develop and the nature of their deviation from the normal trajectory. With this goal

in mind, *Chapter 2* provides an overview of the various theoretical frameworks that are available to increase our understanding of how and why a problem may have developed.

Returning to our case study of Pat as an example, let us imagine that Pat visits a number of therapists from different theoretical backgrounds who suggest different viewpoints as to the possible cause of and potential treatment for Pat's "depressive symptoms." A therapist from a *biological/neurological perspective* would likely view Pat's depressive symptoms as an indication of low levels of the neurotransmitter serotonin, and genetic vulnerability (Pat's father was diagnosed with BD). Treatment for BD would most likely involve medical management to restore levels to normal; in this case lithium, a mood stabilizer, might be prescribed. From a *behavioral perspective*, the therapist may surmise that Pat's depressive symptoms are being reinforced (rewarded) because every time there is a complaint or default on Pat's part, someone comes to the rescue. Or there is also the possibility that Pat may have learned the behavior by modeling or observing Pat's mother's low level of emotional responsiveness. (Pat's mother was recently also diagnosed with depression, which has been on-going, and undiagnosed, for years.) Developing a contingency plan for rewarding independent and positive behaviors would likely play a key role in the treatment program. A therapist from a *cognitive perspective* would evaluate maladaptive thinking patterns and may suggest that Pat has developed a negative thinking loop (negative triad) which is exaggerating the negative and minimizing the positive events in life. Treatment would involve reframing thought patterns to match more positive thinking models. Finally, a *psychodynamic* therapist might look at past history and discover that Pat has felt emotionally abandoned and has feelings of insecure attachment that influence Pat's ability to relate to others. Long-term psychodynamic therapy may be recommended, or if Pat were younger, play therapy might be a good alternative.

From the school perspective there are a number of initiatives that can be developed to assist Pat in becoming more successful in the classroom. Pat's lack of organizational skills may be a significant roadblock to completing written assignments as Pat seems to spend more time generating random thoughts than putting information down on paper in a logical and predictable sequence. Potential problems with learning, attention, and executive functions will be discussed in *Chapter 8*, along with suggestions for interventions and accommodations for these problems at home and at school.

A transactional ecological bio-psycho-social framework

The contribution that different theoretical models can add to our understanding of child problems is further enhanced when supported by Bronfenbrenner's (1979, 1989) ecological framework. More recently, Bronfenbrenner referred to his model as a bioecological model to emphasize the biological characteristics as fundamental to the dynamic interplay between the child and the environment (Bronfenbrenner and Morris, 1998). This framework assists in emphasizing the interaction between child characteristics (genetics, temperament) and environmental characteristics (immediate and more distal influences), in an on-going and **transactional nature**, such that changes beget changes and that influence is bidirectional in nature. Within this model, the child is in the center of a number of concentric circles that represent influences in the environment: the first wave is the **microsystem** that includes the immediate surroundings, including family, school, neighborhood, and peers; the next wave is the **exosystem** (extended family, economic conditions); and the final level of

influence is the **macrosystem** (culture, laws). All of these factors influence and are in turn influenced by the child's individual characteristics (biological make-up, genetic vulnerabilities, intelligence). Interactions between the child and his or her environment ultimately will shape the nature and direction of the child's developmental trajectory as the child acquires the necessary skills for successful adaptation and communication. It is with a growing understanding of the on-going and transactional nature of the process that we have come to appreciate how changes within the child can result in transformations in the environment at all levels depicted above, and that, conversely, changes at all levels of influence can impact the growing individual child, for better or for worse. It is within this over-arching framework that development is presented and discussed as it unfolds in its normal and atypical variations.

Risks, protective factors, and the role of chaotic environments

There has been increased interest in the influence of chaos on human development, especially with respect to the impact of chaotic environments on children's lives. Bronfenbrenner (2001) discusses the rise in "developmental disarray" evident in the lives of children, adolescents, and families which he says permeates the primary life settings from peer groups, to schools, to health care systems. Wachs and Evans (2010) suggest an interesting framework for discussing chaotic environments, drawing upon Joachim Wohlwill's (1970) concept of environment stimulation and Urie Bronfenbrenner's bioecological model. Within this framework, the authors discuss a curvilinear model that addresses potential negative outcomes for over- and under-stimulation, within the contexts of Bronfenbrenner's model of proximal and more distal influences. Some of the environmental aspects influenced by chaos include: scarcity of resources at home or at school, lack of family routines, harsh parenting practices, instability in child care, noise levels in classrooms, and visually chaotic classrooms (Evans and Wachs, 2010). Throughout this book, the concept of chaos will be addressed, as it informs developmental influences in the broader vision of factors influencing development beyond that of a low socio-economic status environment.

Developmental deviations: clinical and educational perspectives

The role of clinical child psychologists and educational psychologists

As will become increasingly clear, clinical child psychologists and educational/school psychologists perform many of the same functions and use many of the same assessment techniques. However, differences may be evident in the specific language that these professions use (clinical versus educational terminology), the settings in which they work (hospitals, schools, mental health clinics), and the focus of their practice.

Clinical child psychologists The goal of the clinical child psychologist is to address the mental health needs of children and adolescents by reducing psychological distress and restoring psychological well-being. Clinical psychologists can be found as part of a multidisciplinary team, working alongside medical practitioners, social workers, and other health professionals, or they can work independently. Common areas of practice include the treatment of psychological disorders such as depression and anxiety, learning disabilities, or serious pathology, such as schizophrenia. The clinical child

psychologist may work with the child or adolescent, individually or in a group, or within the context of the family (parents, caregivers). In the United Kingdom, clinical psychologists are most likely to be found "working in health and social care settings including hospitals, health centres, community mental health teams" (British Psychological Society (BPS); http://www.bps.org.uk/careers-education-training/how-become-psychologist/types-psychologists/becoming-educational-psycholo). In the United States, clinical child psychologists can also be found in similar settings (mental health clinics, residential treatment centers, and hospitals, and working within the juvenile justice or child welfare systems), although many clinicians work in private practice. More often than not, clinical psychologists will have a particular area of expertise, such as providing services to child and adolescent populations, rather than adult populations, or in specialized areas of practice, such as marital therapy, addictions, and eating disorders. They may provide on-going therapy to assist with transitions and emotional difficulties, and monitor progress through family contact. Some clinical psychologists teach, and/or are involved in research to investigate the etiology, course, and treatment of psychological disorders.

Historically, clinical child psychology as a discipline gained status in the mid-1980s when Sroufe and Rutter (1984) launched their journal *Development and Psychopathology*, giving the area of developmental psychopathology the unique recognition it deserved and setting it apart from adult clinical psychology.

Educational/school psychologists According to the BPS, "educational psychologists tackle the problems encountered by young people in education, which may involve learning difficulties and social or emotional problems" (www.BPS.org.uk). In the United States and Canada, the term **school psychologist** is used to refer to someone in this profession, and in spite of the difference in titles, the roles are quite similar in Canada, the United States, Western Europe, Australia, and New Zealand. Although educational psychologists also involve parents in gathering information and generally planning for the child, the primary context of intervention is within the school setting, primarily involving the child and his or her teachers, or related professionals (speech and language therapists, physical therapists, school counselors). The educational psychologist's concerns primarily relate to the child's learning needs and the child's ability to profit from his or her educational experiences, and to enable "teachers to become more aware of the social factors affecting teaching and learning" (BPS, http://www.bps.org.uk/careers-education-training/how-become-psychologist/types-psychologists/becoming-educational-psycholo).

Although within the United States the majority of school psychologists are primarily employed within the public school system, some may be employed in a liaison capacity with the public school system, in their employment within private practice, private schools, mental health facilities, learning centers, or hospitals. According to the BPS, the primary employer of educational psychologists in the United Kingdom is also the local education authorities, and as such educational psychologists are most likely to be found in "schools, colleges, nurseries and special units" and to "liaise with other professionals in education, health and social services." However, the BPS notes that there are growing numbers of educational psychologists who can be found working independently or as private consultants.

Historically, educational psychologists and school psychologists have faced similar challenges due to the enactment of educational policy in their respective locations.

The Education Acts of 1981 and 1993 in the United Kingdom placed emphasis on the identification of children with "special educational needs" (SEN) and clearly prioritized assessment as the primary function of educational psychologists (Fallon, Woods, and Rooney, 2010; Woods, 1994). In the United States, a similar movement was launched with the passing of the Education for All Handicapped Children Act (EHA, 1975) and its reauthorization as the Individuals with Disabilities Education Act (IDEA, 1990) which relegated school psychologists to a position as "gate keepers" to special education placements in their assessments to determine placements and on-going meetings to review placements (Dahl *et al.*, 2011; Reschly and Ysseldyke, 1995). There is an increasing trend among these professionals, globally, to become more involved in research initiatives, providing input into educational policy, and to become more engaged in practices of training and professional development (Fallon *et al.*, 2010; Nastasi and Varjas, 2011).

The intersection of clinical and educational psychology

In her article addressing critical issues children will face in the twenty-first century, Crockett (2004) lists issues including: poverty, violence, bullying and harassment, teen pregnancy/sexual behavior, alcohol and drug abuse, mental health issues and services, diversity and tolerance, and access to quality education and technology. Although this list of issues is based on statistics gathered concerning children in the United States, there is no question that these matters are of global concern in their overall impact on child development and well-being. Additionally, Crockett notes that although these issues represent challenges to all children, responding to these issues is even more challenging for children who experience these difficulties in conjunction with academic, behavioral, and emotional problems. Within this context, shifting roles and priorities, globally, have had an impact on professionals whose main goal is to work with children and adolescents facing these challenges with an increasing need to enhance their skills in all areas (professional training and collaboration). For example, in England, the training of educational psychologists "has moved from a one year Masters to a three year Doctoral programme" (Norwich, Richards, and Nash, 2010), while in the United States, greater numbers of school psychologists at the Master's level are returning to graduate school to upgrade to a Specialist or Doctoral level. Within the last 10 years, several universities in the United States have developed combined Doctoral programs that integrate clinical and school psychology.

Furthermore, policies such as Every Child Matters (DfES, 2004) in Europe and No Child Left Behind (US Department of Education, 2001) in the United States have impacted the further expansion of the role of educational psychologists into areas of consultation and intervention, further blurring the lines between these two "psychologies."

Clinical and educational psychology: international focus on psychology in the schools

According to the WHO (2005), between 5% and 20% of children and adolescents are in need of mental health services, globally. In their attempt to track and identify

the mental health needs of children and adolescents, the WHO cites a number of difficulties encountered, including the fact that:

> Child mental health needs are often inter-sectoral or present in systems other than the health or mental health arena. Children with mental health problems are often first seen and first treated in the education, social service or juvenile justice systems. Since a great many problems of youth are identified in the education sector, these problems may or may not get recorded as mental health problems or needs.
>
> (WHO, 2005, p. 7)

In addition, shortage of services is a major roadblock to obtaining appropriate care for mental health issues for children and adolescents, with access rates ranging between 20% and 80%, globally. Scandinavian regions of Europe have the highest access rates, while those countries that have higher proportions of children have the least available services. In order to address growing concerns regarding availability of and access to mental health services for children and adolescents worldwide, the International School Psychology Association (ISPA) distributed a survey to 43 different countries to evaluate the roles, responsibilities, professional preparation, and challenges of school psychologists. The survey revealed that although these individuals shared common professional duties, such as *individual assessment* (of cognitive, social, emotional, and behavioral difficulties), *development of intervention plans*, and *consultation*, there was wide variation in their professional titles (school/educational psychologist, counselor, psychologist in schools/education, psychopedagogue) and the location where they delivered their services. While some professionals were located in the schools, others could be found in clinics, hospitals, and universities (Nastasi and Varjas, 2011). The survey revealed that school psychology services were best developed in the United States, Canada, Western Europe, Israel, Australia, and New Zealand (Jimerson, Oakland, and Farrell, 2007). In their chapter on international implications for school psychology, Nastasi and Varjas (2011, p. 815) emphasize the need to open the doors to more program focus on cultural and global concerns and the infusion of "culturally and contextually relevant (e.g., culturally constructed) programs, promotion of sustainability and institutionalizing, translation to other contexts and dissemination to facilitate international development of school psychology." In the spirit of addressing this need, this book provides an international focus on research, as well as emphasis on global concerns that will assist practitioners in their work with children and adolescents in clinical and educational settings across the world.

Goals and organizational format of this book

The goal of this book is to provide a comprehensive look at typical developmental patterns in childhood and adolescence (two to 18 years of age) and discuss how common challenges encountered during these key periods of development (stressors at home, at school, and in the environment) can influence the developmental trajectory for better or worse, depending on the child's ability to cope and master these challenges. The book will explain why children who encounter multiple stressors may not be successful in developing adequate abilities to control their emotions or regulate their behaviors relative to age-based expectations, and how these children, without

important and necessary interventions, may become vulnerable to a host of clinical, educational, and mental health problems. The book is divided into two major parts:

Part One: The foundations;
Part Two: Child and adolescent problems and disorders.

Each part addresses key issues relevant to a better understanding of the extent and nature of child and adolescent problems.

Part One: The foundations

This introductory section consists of five chapters and provides the necessary theoretical background to assist readers in better understanding how children and adolescents develop their perceptions of their world, their feelings about themselves and others, and their responses to these perceptions and feelings.

In *Chapter 2*, readers are introduced to five theoretical models, including: the *biological model* (brain chemistry, anatomy, and function), the *cognitive behavioral model* (the development of thoughts about ourselves and others and how behaviors are learned), the *psychodynamic model* (unconscious motives and defenses, as well as issues in attachment), and *models of parenting practices and family dynamics* (parenting style and family systems theory). Ultimately, the chapter presents an over-arching framework*, a transactional, ecological bio-psycho-social framework* that integrates information from all the theoretical models and encompasses the total child.

In *Chapter 3* and *Chapter 4*, normal developmental milestones are discussed, to provide readers with the necessary benchmarks for development in early and middle childhood (*Chapter 3*) and adolescence (*Chapter 4*), as these changes relate to physical, neurological, cognitive, emotional, and social development. A thorough understanding of the expectations for development in these areas provides the foundation for evaluating the extent of deviation from the norm in later discussions of disordered behaviors. Each of these chapters concludes by presenting the latest contemporary research on the influences of attachment and parenting styles on child and adolescent development.

Chapter 5, the final chapter of Part One, provides an overview of the many ethical issues that are involved in working with children and adolescents, in research and clinical practice. The chapter provides clinical and educational perspectives on the nature of developmental deviations and how these may be assessed and evaluated. Discussion concerning issues of diagnosis and classification looks at some challenges in applying current systems to child and adolescent problems. Ethical issues and concerns facing practitioners working with children and adolescence are discussed as they relate to practice and research, internationally. Finally, international concerns of clinical and educational/school psychologists are discussed as they relate to contemporary child and adolescent issues and current challenges to practice.

Part Two: Child and adolescent problems and disorders

The first chapter of Part Two, *Chapter 6*, is devoted to adjustment problems that children and adolescents can face on a daily basis resulting from stressors in their school, family, and social environment. The discussion of adjustment problems is strategically placed at the beginning of the section because these are common stressors which can interfere with positive developmental outcomes on a temporary basis, but can evolve

into more significant disorders if not recognized and addressed appropriately. In this way, these problems can be seen as a bridge between normal and disordered behaviors.

Sequencing of disorder presentation Recent efforts to revise the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) and *International Classification of Diseases* (ICD) have prompted discussions regarding how best to cluster or group disorders based on information available from recent research. With respect to the reclassification of childhood disorders, Andrews *et al.* (2009) conducted a meta-analysis of childhood disorders that currently appear in the DSM (APA, 2000) in the category of "Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence" and the ICD categories of "Mental Retardation," "Disorders of Psychological Development," and "Behavioral and Emotional Disorders with Onset Usually Occurring in Childhood and Adolescence." As part of their review, Andrews *et al.* (2009) considered the validity of including different childhood disorders under the umbrella of neurodevelopmental disorders, including: conduct disorder (CD), separation anxiety disorder, attention deficit hyperactivity disorder (ADHD), mental retardation (intellectual disability), pervasive developmental disorders (autistic spectrum disorders), motor disorders, communication disorders, and learning disorders. However, while some disorders seemed to match a number of validating criteria, such as intellectual disability and pervasive developmental disorders, others, such as subtypes of ADHD, shared some features with neurodevelopmental and externalizing disorders, such as CD. Ultimately, Andrews *et al.* (2009) suggest the possibility of five disorders being clustered within the category of neurodevelopmental disorders, based on genetic etiology, symptom similarity, cognitive impairment, early onset, and persistence of course. The five disorders suggested are: mental retardation (intellectual disability), pervasive developmental disorders (autism spectrum disorders), motor disorders, communication disorders, and learning disorders.

For purposes of this book, *Chapter 7* includes three primary neurodevelopmental disorders (intellectual disability, autistic spectrum disorders, and communication disorders), as well as other disorders with early childhood onset (feeding disorders and selective mutism).

In *Chapter 8*, students are introduced to disorders that involve problems of learning (five types of specific learning disabilities) and attention disorders with or without hyperactivity and impulsivity and how these disorders impact academic performance, as well as social-emotional functioning. From a developmental perspective, these problems are most likely identified within the first two to three years of formal schooling. The chapter provides important information on etiology, identification, and intervention for these disorders.

In *Chapter 9*, the discussion evolves around a wide range of externalizing behaviors which are often the most frequent source of referrals for mental health services. A continuum of behavioral problems are introduced, ranging from mild forms of early aggression to bullying and victimization of peers, behaviors that challenge authority (oppositional defiant disorder), and behaviors that violate the rights of others (conduct disorder). The chapter also addresses recent emphasis on the callous and unemotional specifier for conduct disorder, and how the disorders are assessed and treated.

Internalizing disorders are the focus of *Chapter 10*. In this chapter, some of the most frequent disorders are discussed, including: anxiety disorders (phobias, separation anxiety disorder, generalized anxiety disorder, obsessive compulsive disorder, and panic disorder), mood disorders (major depression, dysthymia, and bipolar disorders),

and somatization disorders and somatic concerns. The chapter addresses how these disorders manifest in children at different levels of development, as well as discussing assessment and treatment alternatives. Suicide, which increases greatly in adolescence, is also discussed in this chapter, as well as a very successful school-based suicide prevention program that is available.

There has been growing international concern about the increase in eating disorders and substance use and abuse among children and youth. In *Chapter 11*, these concerns are addressed by discussing the results of numerous surveys that have been conducted internationally to draw attention to the decreasing ages and increasing prevalence rates for eating disorders and substance use and abuse. Empirically supported treatment alternatives and prevention programs are presented.

In *Chapter 12*, the topic of child maltreatment is addressed from an international perspective, as it relates to physical, sexual, and emotional maltreatment, as well as child neglect and situations of multiple maltreatment. Self-injurious behaviors are also addressed in this chapter, because they are often triggered by perceived maltreatment. This chapter is strategically placed prior to discussions of child trauma and trauma disorders, since many children who are maltreated also develop post-traumatic stress disorder (PTSD).

Finally, in *Chapter 13*, the discussion will focus on child trauma and trauma-related disorders. Reactive attachment disorder and acute and post-traumatic stress disorder (PTSD) will be addressed, as well as how symptoms of these disorders manifest across the developmental spectrum. Discussion will focus on concerns regarding the identification of PTSD in preschool children.

Format of the presentation of the clinical disorders Each of the chapters will be presented in a consistent format which includes a diagnostic description of the disorder, followed by a discussion of the nature and course of the disorder, etiology and prevalence rates, and assessment and treatment alternatives. The following is an overview of the types of information that will be presented in each of the sections outlined, as follows.

Nature and course This section will provide a description of the disorder/problem. The intention is not to provide a verbatim account of diagnostic criteria as they appear in the DSM or ICD, since readers can access these manuals directly. What will be provided is general information about the disorder, such as symptoms and subtypes, as well as differential diagnostic considerations, and any disparities in how the disorders are conceptualized by the different classification systems.

The section will also provide a description of developmental characteristics, chart the course of the disorder, and present findings from research concerning how the disorder manifests across the different developmental levels.

Etiology and prevalence Etiology will be discussed in relation to various theoretical frameworks (biological, cognitive-behavioral, psychodynamic (attachment) and parenting styles), and prevalence rates will be provided as they relate to current research in the field.

Assessment and treatment There are many assessment instruments and checklists that can be used to provide general information about a child's personality, self-esteem, and behavioral profile. Depending on his or her age, questionnaires can be

completed by the child/adolescent, or by an adult familiar with the child (parents, caregivers, teachers). In *Chapter 5*, many general assessment instruments are introduced as they relate to the evaluation of cognitive, academic, and psychological/behavioral functioning. This section will very briefly draw attention to symptom-specific instruments that are available to compare a child's or adolescent's level of responses in a particular area (e.g., anxiety, depression) relative to others in the same age range, and will serve to orient readers to other sources for more in-depth information on the instrument.

The importance of identifying empirically supported treatments has gained increasing emphasis, developmentally. The focus will be on providing developmentally appropriate methods of intervention that represent a wide variety of theoretical frameworks (cognitive-behavioral, family systems, play therapy, biomedical management, special education) and systems of delivery (individual, group, and family therapy).

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