Karen A. Frankel Joyce Harrison Wanjiku F. M. Njoroge *Editors*

Clinical Guide to Psychiatric Assessment of Infants and Young Children



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This book is dedicated to our families Doug and Jess Carrel; Mbugua, Josephine, Njoroge M. Njoroge, and Suzanna Reiss; and John, Matt, and Kat Harrison, who supported us, tolerated us, and loved us while we undertook this effort across the years and globe.

Foreword

The validity and the importance of early childhood psychopathology have both become increasingly clear over the last two decades. An expanding body of empirical research on the manifestations, longitudinal outcomes, and neural correlates of psychopathology in young children, as well as the unique efficacy of early intervention, has catalyzed this field. Disorders of infants and preschoolers are now a widely accepted clinical phenomenon and of interest to groups beyond those with a specific focus on early childhood development and psychopathology, to those practicing in mainstream mental health. Based on this, the need for clear guidelines on developmentally sensitive and appropriate assessment techniques has taken on even greater importance and urgency. Innovations in this area have facilitated the clinical research providing the advances in our ability to detect and understand the etiology and course of early childhood psychopathology. Now, many of these methods and measures can be utilized in clinical settings and may serve as very useful tools for conducting an age-appropriate and clinically meaningful assessment as outlined in the following chapters.

The chapters contained in this volume outline developmentally sensitive principles and approaches to the clinical mental health assessment of young children. While these methods may be applied using a variety of adaptations and forms and in different clinical settings, it is important to note that such developmentally specific approaches are critical to obtaining a valid and clinically meaningful mental health assessment of a young child. Failure to utilize age-appropriate methods may result in both overdiagnosis and failure to detect symptoms and disorders of the young child. Several central principles underlying the unique features of the assessment of the young child are outlined in the book. First is the central importance of the dyad to the emotional and social functioning of young children and the related need to conduct the evaluation in the context of the caregiver-child relationship. Related to this, the assessment of parenting style and internal representations which impact parenting is also central and elaborated upon in several chapters. These issues while important in all child assessments are critical to the mental status exam and diagnostic formulation of the young child. The importance of the play setting and the use of play as the medium of expression is also a central theme. Several

other principles are key, such as the need to consider behavior in context (including relationship context) and the need to assess the child with different caregivers and on more than one occasion to account for the significant effect of state on a young child's mental status. The reader can utilize the information in this volume to apply these methods and principles to conduct an age-appropriate mental health assessment of young children.

This volume also touches on diagnostic systems that can be applied in early childhood, reviewing the merits and limitations of both DSM 5 and DC:0-5. While it does not provide a review of empirically supported treatments for mental disorders in young children, it does touch on more global issues such as how to assess for the need to evaluate the potential use of psychopharmacology. The volume, while not prescriptive, provides a comprehensive overview of the key principles to be considered and numerous tools and approaches that can be utilized in the age-appropriate mental health assessment of the young child. Importantly, a true embrace of these principles and methods is nothing short of prerequisites for the appropriate and accurate mental health assessment of the young child. This comprehensive book provides a highly clinically useful review of these essential principles.

Washington University St. Louis, MO, USA Joan L. Luby

Preface

We are pleased to offer this volume as a hands-on guide to the assessment of very young children and their caregivers. Each of the editors (and most of the authors) has worked for decades in the area of infant and early childhood mental health, training and teaching new generations of providers. Joyce, Wanjiku, and I have longed for a single text that brought together resources describing the comprehensive process of evaluating infants, toddlers, preschoolers, and their caregivers. Infant and early childhood mental health is a complex subspecialty of child mental health which takes a unique lens toward assessment—one that is relationship-based, contextually grounded, culturally sensitive, and diversity-informed and requires competence in adult, child, and relationship assessment skills. Learning all of these domains can be daunting for trainees and seasoned professionals as well. We hope this volume will make the task more accessible and enticing!

This volume is intended to provide conceptual frameworks as well as specific information on the "how-to's" of conducting an infant/early childhood evaluation. We intend that each chapter can stand alone to teach a particular type of assessment and/or skill and that the complete text will provide a guide to a thorough and comprehensive evaluation. Each chapter highlights the particular principles of assessment that apply to that domain and describes specialized tools that can be used by the clinician in academic, public, and/or private practice settings. This volume imparts to the reader the critical importance of understanding culture and diversity such that special attention is paid to the role of culture and its impact on assessment of families with young children. Finally, each of the chapters concludes with a brief case vignette which hopefully brings the material alive and illustrates the use of the highlighted tools.

Aurora, CO, USA

Karen A. Frankel

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Chapter 1 Introduction Assessment in Early Childhood



Rachel Stein, Wanjiku F. M. Njoroge, and Dena M. Dunn

Introduction

Infant and Early Childhood Mental Health (IECMH) is a broad topic that includes a multitude of considerations contributing to social-emotional well-being in early childhood. The definition is typically inclusive of very young children between the ages of 0 and 6. The field of IECMH describes how early childhood is shaped by both individual development and the context where development takes place (Zeanah, 2009). Clinicians from diverse fields and backgrounds have applied this understanding to efforts supporting the social and emotional well-being of children in the early years of life. What sets IECMH apart is the focus on the caregiver–child relationship and treating any challenges that arise within the framework of that relationship (Zeanah, Stafford, & Zeanah, 2005). While individual psychopathologies are considered, the relationship itself is often determined to be an important

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© Springer Nature Switzerland AG 2019 K. A. Frankel et al. (eds.), *Clinical Guide to Psychiatric Assessment of Infants* and Young Children, https://doi.org/10.1007/978-3-030-10635-5_1 component of any dysfunction that arises. Assessing mental health, behavior and development in early childhood is different than at other points in life. Even though very young children are individuals, they are heavily reliant on their caregivers and are greatly influenced by their environment. Very young children are often unable to describe concerns or share their experiences verbally, therefore, social and emotional challenges may manifest in the reports of their adult caregivers or through the child's behavior. Many of the usual methods of expressing oneself during the assessment process (e.g., self-report survey measures) are not applicable to young children because they lack the developmental, cognitive, language, and motor skills. The approach to assessment in early childhood differs from other types of assessment in that it relies heavily on input from a child's caregivers and considers any information provided within the context of the caregiving relationship. While many forms of assessment take an ecological perspective, IECMH acknowledges that early childhood experiences fundamentally take place within the surrounding relationships and contexts.

This chapter provides an introduction and overview of IECMH and assessment in early childhood. First, a brief history of the field of IECMH is described. Against this historical context, modern definitions and conceptualizations of IECMH are explored. Guiding principles and ideas related to IECMH and assessment are discussed, followed by an explanation of pragmatic considerations for assessment in early childhood. Finally, a synopsis of this volume is included to help guide the use of this book, based on specific reader goals and needs.

Defining Infant and Early Childhood Mental Health

Infant and Early Childhood Mental Health (IECMH) includes an age range that encapsulates very early childhood, frequently 0–3 years, with some definitions going up to age 8 and others that include the prenatal period. Each definition acknowledges the role of caregivers and the environment in a child's earliest experience. A few of the most widely accepted definitions of infant mental health are presented below, in order to help the reader to define and contextualize early childhood assessment within the field of IECMH.

The World Association for Infant Mental Health (WAIMH) aims to promote healthy development and well-being for infants worldwide. Central to this mission is an understanding of developmental differences between children. WAIMH views Infant Mental Health (IMH) as encompassing the dual goals of generating and disseminating science that works to promote healthy development and well-being from conception until three years of age. Specifically, WAIMH articulates that IMH is:

The ability to develop physically, cognitively, and socially in a manner which allows them to master the primary emotional tasks of early childhood without serious disruption caused by harmful life events. Because infants grow in a context of nurturing environments, infant mental health involves the psychological balance of the infant-family system (WAIMH Handbook of Infant Mental Health, 2017, vol 1, p. 25).

ZERO TO THREE (ZTT) defines IMH as: "How well a child develops socially and emotionally from birth to three" (2017). ZTT further articulates:

Infant-early childhood mental health, sometimes referred to as social and emotional health, is the developing capacity of the child from birth to 5 years of age to form close and secure adult and peer relationships; experience, manage, and express a full range of emotions; and explore the environment and learn—all in the context of family, community, and culture. Strategies to improve I-ECMH fall along a promotion, prevention and treatment continuum.

A young child's mental health is crucial to their ability to form relationships, engage a range of emotions, and to explore his or her environment (ZTT, 2017), all of which are building blocks for subsequent healthy development. According to ZTT, comprehensive IECMH services include a continuum of promotion, prevention, and treatment.

Important Influences in Infant Mental Health

Throughout history there was little acknowledgement that very young children have emotional states or are impacted by their surroundings. Over time there was a gradual realization that children are not just small adults (i.e., Rathus, 2008), but rather have their own internal states and developmental processes.

The field of Infant and Early Childhood Mental Health (IECMH) was shaped by a number of theoretical perspectives, with origins in psychoanalytic tradition, systems-based approaches, and a medical foundation of illness and psychopathology. In the historical overview presented below, key individuals in the formulation of the field of IECMH are briefly described, alongside their contributions to the field.

Sigmund Freud

Psychoanalytic tradition was the first perspective of mental health that considered early childhood an important and significant time. Freud articulated that individuals develop attachment relationships in the early years of life, with the potential for problems if these relationships are conflictual or do not meet the young child's needs (Fitzgerald, Weatherston, & Mann, 2011). However, Freud did not work directly with children and examined these theories through his work with adult patients, looking retrospectively at their lives. Nonetheless, his ideas compelled others to begin to think about the importance of experiences early in life.

Anna Freud

Anna Freud built upon the work of her father, Sigmund Freud, with a specific focus on understanding the early childhood period. Through her work Freud helped connect early childhood behavior to trauma, developmental challenges, and emotional conflicts. Although contemporary work often connects behavior in early childhood with both external and internal struggles, these ideas were novel when Freud began providing trainings to teachers and parents. Throughout her career Freud worked to better understand the causes and treatments of behavior in infancy, both through clinical and academic work (Freud, 1983).

Jean Piaget

Jean Piaget contributed to IECMH through his work on early childhood cognitive processes. Piaget's study of children's understanding of the world helped illuminate that children's reasoning is not the same as adults. Although Piaget did not identify himself as someone treating early childhood mental health, his work moved psychology towards the realization that children need to be thought of as individuals with different types of mental reasoning than adults. In turn, this influenced how both healthy functioning and challenging behavior are thought about in the early childhood years.

Donald Winnicott

Winnicott was a British pediatrician who articulated the importance of parenting practices on children. Winnicott is famous for his quote, "There is no such thing as an infant, meaning, of course, that whenever one finds an infant one finds maternal care, and without maternal care there would be no infant" (Winnicott, 1953, p. 585). In contrast to some earlier psychoanalytic approaches, Winnicott aimed to help parents be "good enough" parents, rather than perfect parents (Winnicott, 1953). Although these ideas may sound like common sense, they were novel during the time in which Winnicott proposed them. They helped to propel the understanding of young children's early emotional experiences, specifically the important role of caregiving.

Erick Erickson

Erick Erickson expanded upon many psychoanalytic ideas to consider more of the context in which development takes places, with a specific focus on social context (Fitzgerald et al., 2011). This understanding helped frame IECMH as transactional

and relationship-based. Thinking about IECMH in this lens helped articulate how IECMH takes place within a context and is a dynamic process (Fitzgerald et al., 2011).

John Bowlby

Bowlby was a psychological theorist who advanced the understanding of caregiverchild relationships, called attachment, through his work (e.g., Bowlby, 1969). Although Bowlby was trained in the psychoanalytic tradition, he began to see the importance of considering the social environment when thinking about motherinfant relationships (Holmes, 2014). Ultimately, Bowlby developed the idea of attachment theory which stated that being proximal to a loved one created positive feelings, whereas being physical distant resulted in feelings of anxiety, sadness, and loneliness (Holmes, 2014). Over time, every individual's attachment experience shapes subsequent psychological experiences and skills, even once past the age of needing physical proximity to a caregiver. Bowlby articulated that it is essential for infants to experience a, "warm, intimate, and continuous relationship" with a primary attachment figure (Bowlby, 1953, p. 13), which has important implications for their later functioning. Bowlby illustrated this idea in a number of ways, including his film A Two Year Old Goes to the Hospital, which demonstrates the painful feelings a young child may have when separated from a caregiver. Ultimately, Bowlby's work was pivotal in beginning conceptualization of the origins of dysfunction in early childhood.

Bowlby's attachment theory has expanded to consider the quality of attachment relationships and their implications. Specifically, attachment is often thought of in terms of both attachment style and related attachment behaviors. One's style of attachment is classified as either *secure* or *insecure*. Secure attachments create a sense of consistency and safety, whereas insecure attachments cause conflictual and sometimes negative feelings (Holmes, 2014). In turn, attachment behaviors are those behaviors that result in the seeking or distancing oneself from attachment figures. Although these attachment relationships take place early in life, they are thought to impact mental health and relationships throughout life.

Selma Fraiberg

In the 1970s Selma Fraiberg and her colleagues began to study social and emotional states in early childhood. Fraiberg worked collaboratively with individuals from across disciplines to learn more about IECMH. Specifically, she used this terminology to describe the social-emotional experiences of children under 3 years of age (Weatherston, 2000). Selma Fraiberg and her colleagues engaged in research that highlighted how caregivers influence babies and how babies also influence their

caregivers. Specifically, Fraiberg and her colleagues (1980) realized that they needed to think about caregivers' early experiences, or the Ghosts in the Nursery, in order to work with young children. They found that caregivers unknowingly adopted caregiving practices that were influenced by their own pasts and intervention was successful when considering the caregivers early experiences and their impact on the young child in question (Fraiberg, 1980). Fraiberg's work helped to integrate her psychoanalytic perspective with an understanding of transactional systems (Fitzgerald et al., 2011). Fraiberg and her interdisciplinary team of social workers, psychologists, nurses, and psychiatrists treated infants and their caregivers, often within the home environment, with the ultimate goal of decreasing childhood psychopathology and relationship challenges (Weatherston, 2000). In a then novel approach to treatment, Fraiberg and her team worked to understand each child and his or her family to remediate challenges faced by the infant within his or her caregiver relationships (Weatherston, 2000). In addition to the unique understanding of early childhood that Fraiberg and her team used to guide their work, they also recognized each family's urgent concern and immediate risk factors (e.g., the need for formula). Shaped by the work of Selma Fraiberg, medical and mental health providers propelled the conceptualization of IECMH.

Contemporary Theorists and Contributors

This multidisciplinary approach of the field of IECMH has been adopted by important figures who have furthered ideas and research in this area. Many contemporary professionals like T. Berry Brazelton, Alicia Lieberman, Charles Zeanah, and Arnold Sameroff have advanced the science and practice of supporting mental health during the early years of life. While there are too many important individuals to comprehensively describe in this text, the field has grown and progressed due to the contributions of many.

Development and Infant Mental Health

During early childhood, development takes place at a very rapid pace, with periods of important growth and acquisition of new abilities. In the first 5 years of life, significant growth occurs within multiple "sensitive" periods (Knudsen, 2004). During these periods the secure caregiver–infant relationship provides a strong foundation for the growing infant's developmental competencies (Knudsen, 2004). One of the key facts of early childhood is that early experiences are the foundation of later development and affect developing connections between neurons (Neurons to Neighborhoods, 2000; Shonkoff et al., 2012). Therefore, when assessing young children it is vital to consider the role of their rapid cognitive, motor, communication and social-emotional developmental capabilities in the context of their relationships. Neurons to Neighborhoods (2000) stated:

Virtually every aspect of human development, from the brain's evolving circuitry to the child's capacity for empathy is affected by the environments and experiences that are encountered in a cumulative fashion beginning in the prenatal period and extending (p. 6).

Although the specific stages and mechanisms of child development are vast, this section briefly outlines some of the developmental frameworks and considerations important for social-emotional assessment in early childhood. Each of the models below provides a perspective on positive and negative influences on a child's development. While there is some overlap between the different theoretical approaches, each tries to conceptualize how the developing young child is impacted by their world, and how the young child impacts their world. During the process of assessment, it is critical to keep these frameworks in mind, to conceptualize findings in the context of the many important influences in the functioning of young children.

Ecological Theory and Transactional Relationships

The ecological perspective of development draws upon the foundation of early theorists who considered the importance of looking at development within context. Although it is easy to dichotomize experiences as due to either nature or nurture, a more realistic perspective recognizes that both nature and nurture are important (Sameroff & Fiese, 2000). Indeed longitudinal research efforts provide support for both the impact of the individual and the environment (Sameroff & Fiese, 2000).

Ecological theory conceptualizes environmental influences through a series of concentric rings based on their impact on an individual. Specifically, an ecological perspective begins with the most proximal influences (e.g., caregivers) and moves outward to factors that are influential in a more distal way (e.g., neighborhood, policy). Through this lens, ecological theorists acknowledge that individuals are shaped by a multitude of contributions outside of themselves, with some playing a more prominent role than others.

When assessing very young children, an ecological perspective is helpful to account for the various ways in which children are affected by the world around them. For example, a child's emotional state might be impacted by their caregiver yelling at them for making a mess or because their preschool has a high ratio of children to adults. When thinking about social-emotional health in the early stages of life children are extremely vulnerable to a range of influences, from the nutrition they receive, to the amount of attention adults give them, and to the types of opportunities available. Although children are often seen as subject to their environment, they contribute to their surroundings. Transactional relationships describe the mutual interaction between the individual and environment, where one constantly influences the other (Sameroff & Fiese, 2000).

In the context of early childhood assessment, considering the transactional relationship between a child and his or her surroundings is critical. For example, an infant born with a difficult temperament (e.g., difficult to soothe, slow to adjust) may thrive with easy-going parents but may struggle with parents who prefer rigid routine. In either of these instances the baby is influencing the caregivers while the caregivers influence the child. Together their interaction describes a great deal about the infant's development and social-emotional health, which might be lacking if only one or the other is considered.

Risk and Protective Factors

There are many factors which can act as either protection against adversity or increase the risk for challenges. In early childhood, the impact of risk and protective factors is magnified due to the pace of development. During the first 3 years of life there are significant changes in neurodevelopmental processes with increases in synaptic density, dopamine receptor density, and cerebral metabolic rates peak. The National Scientific Council on the Developing Child has written extensively about the impact that early experiences have on both gene expression and construction, which they refer to as the architecture of the brain (National Scientific Council on the Developing Child, 2010). Neurons to Neighborhoods (2000) addresses the linkage between environment and early experiences and the impact on healthy brain development. This seminal text conveys the importance of the ways developing brains acquire information and how the information is encoded, translated, understood, and expressed later in child development and behaviors. "Plasticity" is a term used to refer to as the brain's ability to learn from experience. Research on brain development continues to focus on identifying the type and timing of various influences on early brain development. For example, trauma and toxic stress impact young children in different ways, which is likely influenced by the timing of the trauma, the type of trauma, and the protective influences a child has when recovering from the trauma. Shonkoff (2017) explains:

Despite the widespread yet erroneous belief that people need only draw upon some heroic strength of character, science now tells us that it is the reliable presence of at least one supportive relationship and multiple opportunities for developing effective coping skills that are the essential building blocks for strengthening the capacity to do well in the face of significant adversity (p. 12).

Resilience in early childhood is fostered in the context of caregiving relationships. Positive caregiving practices and environments serve as an important buffer in both supportive and challenging environments. Protective caregiving may include caregivers who are attuned and responsive to their child, positive discipline, environments that are supportive of learning and language, and playful child–caregiver interactions. When caregivers aren't available, either physically or psychologically (e.g., parental mental health problems), to provide positive caregiving practices, children are impacted. In particular, children may receive less attention and lack the strong relationship bond that can buffer against adversity.

Development and Early Childhood Assessment

Language and Communication

Language and communication skills are always an important consideration to ensure accurate information is gathered during assessment. This is particularly true when working with very young children, given that language skills may be limited during this developmental period. Further, in contrast to working with older children, very young children may not have the cognitive or language abilities to answer direct questions, nor are their responses necessarily reliable due to their developmental level. Although there is evidence that foundational language skills (e.g., basic imitation) develop during early infancy (De Villiers & Davidson, 2016), the ability to express one's experiences develops much later. Being able to convey one's emotional experiences requires an understanding of emotions as well as the language or communication skills to share that information. Therefore, other forms of communication and information gathering are central to working with very, young children.

In early childhood, communication often takes place in the form of behavior. For instance, an infant who is uncomfortable will cry or a toddler who is preverbal may point to something that he or she needs. While at times these behaviors may convey a clear meaning, other times they may be more ambiguous. The methods of communicating social-emotional needs, such as self-report measures, that are important for older children and adults are not useful in the early childhood period. Rather, understanding young children's needs requires making inferences and relying on external reports (Zeanah & Boris, 2000). The challenge in using these methods is that there is a great deal of potential for miscommunication or misunderstanding. For example, a parent may inaccurately interpret their child's behavior because of their own experiences. Parent report also relies on the perception and interpretation of their child's cues and communication. For example, an exhausted and stressed mother may misperceive her infant's crying as communicating hunger and respond by feeding the infant, when the crying baby may be expressing discomfort from a wet diaper. Communicative behaviors in infancy and early childhood may have many possible meanings, creating the potential to misinterpret what a child is trying to share. Assessment of very young children requires careful consideration of communication and the possible meanings of behaviors, caregiver reports, and how information for assessment is gathered and received.

An additional complication is that some assessments may be confounded by language abilities. Although a toddler who is learning language may be able to share some of his or her experiences, what is shared may be limited by his or her communication skills. For instance, a young child may rely on the only two feeling words they know, even if neither word is truly able to capture their experience. Young children also struggle to understand temporal sense. For example, yesterday may feel like last week, and time is difficult for them to express verbally. Therefore, assessors must be careful to consider whether they are actually capturing an understanding of a child's emotional experience rather than a child's ability to communicate effectively.

Motor Development

Purposeful motor movement is an alternative to verbal communication. A range of motor movements can convey important messages, from facial expressions to gestures. In addition, intentional motor activities are included in assessment, with the expectation that an individual can manipulate assessment tools (e.g., blocks). However, young children are still mastering motor skills, so motor abilities need to be taken into consideration. For instance, some assessment tools that rely on certain motor skills may actually assess a child's motor ability, which may or may not be the aim of an assessment. While there are certainly ways to engage in assessment that reduce the expected motor demands, it is nonetheless important to understand a child's motor abilities and their impact on assessment in order to ensure that accurate information is gathered.

Social-Emotional Development

The development of strong social and emotional skills is complex, but extremely important to think about because of their broad impact on other functioning and development. In particular emotional health in early childhood has been linked to better school performance and the related correlates (ZERO TO THREE). Children who struggle with challenges related to their social and emotional functioning have been shown to have fewer cognitive gains, in addition to having their interactions with others impacted. Children who struggle with self-regulation, self-soothing or express negative emotions through maladaptive behaviors tend to spend more time outside of the classroom (e.g., sitting in the hallway, suspension) and have fewer positive social interactions, which self-perpetuates (ZERO TO THREE). Foundational social-emotional skills and self-regulation are essential for an optimal developmental trajectory.

Contextual Factors Impacting Early Childhood Assessment

Considering the context in which the child lives and behaves is critical to accurately evaluating and describing a child. Individual variables of the child, caregiver factors, and cultural and environmental factors influencing early childhood assessment are outlined below.

Child Temperament and Personality

Social emotional development is influenced by biology, relationships, and the environment. Each of these contributes to a young child's experience of and response to the world. Biologically, each child is born with a temperament that predisposes them to certain types of responses (e.g., tendency to be flexible versus inflexible). Biology lays the foundational blueprint for each of us. Some individuals are born with a tendency to be easy going, while others thrive when they have more routine. Temperament and personality are strongly affected by a child's mood and regulatory state. For example, if a child is slow to warm up, a regularly scheduled 1 h evaluation may not allow enough time to get an accurate depiction of a child's personality, but an evaluation that is scheduled for a larger block of time might allow for a very different picture of a child's functioning and a larger slice of a child's personality. Similarly, an evaluation that is too long or that includes a multidisciplinary team with multiple transitions and different evaluators, may elicit different qualities in a child who is slow to warm up versus a child who is extremely social.

Dyadic Considerations: The Early Caregiving Relationship

Relationships are the lens through which infant and toddlers first experience their surroundings; thus, relationships become a filter that can positively or negatively influence how very young children interpret their surroundings. The environment in which an infant is raised is an important contributor to their development. From the beginning, physiology plays a role in our experiences. For instance, a baby who is bigger when born may be able to take more food and may eat less often than a baby who is smaller at birth and may require many small feedings. In turn, these physical predispositions play a role in the types and quality of the child's relationships. Caregivers respond in kind and bring their own emotional experiences to the physiologic predisposition of the child. Therefore, the caregiver of the larger infant may get more sleep and respond more predictably to their child's feeding cues in contrast to the infant requiring more frequent feedings. Attributes of a child impact this caregiver-infant relationship. Infant development and an infant's relationship with primary caregivers have been described as a reciprocal, serve and return (Shonkoff, 2017). Within their interactions with caregivers, infants seek interaction through verbal and nonverbal communication (e.g., babbling, gesturing, and pointing) and adults who are responsive return these serves with similar emotional engagement. Shonkoff (2017) describes that this serve and return behavior, continues like a game of tennis or passing a ball back and forth. This dyadic context for relationships illustrates the importance of considering caregivers in the developmental assessment of young children. Specific strategies and tools for dyadic assessment will be discussed further in this text (see Chap. 4).

Environment and Culture

Outside of the context of the caregiving relationship, a child exists within a family, culture and larger society. These important ecological and environmental factors cannot be ignored in the evaluation of very young children. It is crucial to take into consideration the changing demographics of the United States, as this increasing diversity has led to heightened knowledge about ethnic and cultural variations. Culture influences every aspect of human development and is reflected in childrearing beliefs and practices designed to promote healthy development (Hughes, 2003). Culture affects many aspects of early childhood development. Cultural researchers have clearly documented that different cultures have different norms and expectations with respect to their children's development (Rogoff, 2003). Some of these are parenting style, communication, ideals about safety, social communication (e.g., eve contact, body language, and nonverbal communication), parental control, independence, emotional responsivity, and cultural definitions of psychopathology, to name only a few. Cultural, racial, and ethnic identity, bicultural and intercultural families, and even the evaluator's cultural identification can impact the assessment of a young child. Linguistic variables, a child's primary language, and the family's spoken language should also be carefully considered before beginning an evaluation with a young child. For example, many children raised in bilingual homes are exposed to only their native language at home, and exposed to English only outside the home. As children enter school, they become linguistically acculturated, but in early childhood sometimes do not understand or speak English fluently, depending on their exposure.

Goals of Early Childhood Assessment, Diagnosis, and Treatment Planning

Early childhood assessments typically take place in three broad contexts: medical, educational, and developmental/behavioral. Assessment procedures are employed for various reasons including screening and early identification, classification/ placement, diagnosis, and monitoring progress over time. Goals of an early childhood assessment can include the following: (1) assessing a child's strengths to diagnose developmental delays or special needs; (2) screening to identify children needing further assessment to determine the need for health or other special services or supports; (3) determining eligibility for early intervention, special education and related services; (4) planning an intervention program, or monitoring a child's progress; and (5) diagnosing early childhood mental health disorders. Considering the specific assessment goals is vital in determining what information needs to be gathered as well as the most appropriate tools. Each of these is briefly described below.

Early childhood assessment in a medical setting often occurs in a primary care or specialty clinic setting. For example, child development may be screened as part of

routine pediatric primary care, or formally evaluated in the context of a neonatal follow-up, neurology, or cardiac clinic. Supplementary screening tools and caregiver questionnaires often accompany a formal developmental assessment. Typically the motivation for an assessment within a medical setting is to determine whether development is proceeding typically or to identify any problems that may be inhibiting typical development. Physical development and cognitive development (i.e., problem-solving and play skills) have historically been the primary focus of medically based evaluations in early childhood, although there is an increasing awareness of the need to consider social-emotional development. The goal of assessment within a medical setting is usually to help determine whether additional care is needed (e.g., surgery, speech therapy, referral for Early Intervention) and to help connect a family to supportive services and community resources.

Educational assessments in early childhood are often motivated by indications that a child is not learning at an expected pace or in a manner that is different from his or her peers. This may be indicated by an underlying disorder (e.g., trisomy 21), developmental difference (e.g., delayed language development), behavioral difficulties (e.g., hyperactivity, difficulty concentrating), or motivated by an early childhood educators' observations or concerns. Assessment within the early childhood educational setting typically aims to help a child learn more effectively; specific goals of an educational assessment might include determining a child's approximate development level, establishing an understanding of their strengths and weaknesses, identifying sensory sensitivities or differences, and developing a plan to provide support within the context of the classroom and community.

Behavioral evaluations, or assessments in an outpatient mental health clinic settings in early childhood often take place because developmental, behavioral or psychological concerns have been identified. For instance, a family may seek clinical assessment after concerns for an Autism Spectrum Disorder arise or because their infant is crying excessively and medical concerns have already been ruled out. The goals of assessments in clinical settings are broad ranging, depending on the motivating question. Possible assessment goals within a clinical setting may include: trying to understanding a child's learning, social-emotional functioning, development, or relationships with the goal of creating a treatment plan for intervention or support.

Infant and Early Childhood Assessment: Strategies and Tools

Screening

Developmental monitoring, surveillance or screening is recommended in early childhood to gather information about a child's development by caregiver report. Standardized screening measures are administered by medical or mental health professionals in the context of medical and early care and education settings, and are used to track a child's developmental progress over time.

Table 1.1 American	General developmental screening tools
academy of pediatrics	Ages and Stages Questionnaire (ASQ-3)
screening recommendations	Parents' Evaluation of Developmental Status (PEDS)
	Parents' Evaluation of Developmental Status- Developmental Milestones (PEDS-DM)
	Brigance Screens
	Developmental Assessment of Young Children
	Social-emotional screening tools
	Ages and Stages Questionnaire: Social-Emotional (ASQ-SE-2)
	Autism screening tools
	Modified Checklist for Autism in Toddlers (M-CHAT-R/F)
	Childhood Autism Spectrum Test
	Social Communication Questionnaire
	Maternal mental health screening tools
	Edinburgh Postnatal Depression Scale
	Center for Epidemiologic Studies Depression Scale (CES-D)
	Patient Health Questionnaire-2 (PHQ-2)
	Patient Health Questionnaire-9 (PHQ-9)

The American Academy of Pediatrics (AAP) issued a policy statement in 2006 outlining recommendations for developmental surveillance in pediatric primary care. They recommend conducting general developmental screening using evidence-based tools (see Table 1.1) at 9, 18, and 30 months, or whenever a concern is expressed by a provider or caregiver. In addition, autism-specific screening is recommended at ages 18 and 24 months, as well as screening for maternal mental health (AAP, 2006).

Each developmental screening instrument includes instructions for caregivers on how to complete the measure, and for the evaluator on how to interpret raw scores. For some instruments, total raw scores in each domain are compared to preestablished cutoff points. Scores above the cutoff point mean the child is progressing as expected for his/her developmental age. Scores below the cutoff point mean a child may need further assessment, referrals or recommendations.

Another critical component of screening is "closing the loop" to ensure appropriate and timely follow-up based on screening results. For example, if a pediatrician screens a child and uncovers that they are at risk for delayed language development, making a referral and following-up on the referral is important in ensuring quality care.