

# ***Factors in Child Development***

## ***Part I: Personal Characteristics and Parental Behavior***

**Draft Final Report**

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# *Introduction*

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*Personal Characteristics and Parental Influences* is the first in a series of reports prepared for the Centers for Disease Control and Prevention. In this paper we discuss desired developmental outcomes and explore the personal characteristics that are related to those outcomes. As we discuss each of these personal characteristics, we also explore its earliest manifestations — those behaviors that can be observed before the age of five. Recognizing that the environment of the child makes a difference in how that child learns and grows, we examine the aspects of parenting that are associated with development of the desired personal characteristics. We go on to discuss how parental well-being may affect a parent's ability to form the kind of parent-child relationship that is related to positive developmental outcomes.

The study of child development is a well-established social science discipline that intersects with a number of other disciplines. The relevant literature would fill a reasonably large library and is supplemented continually by new reports in dozens of journals that are published on a regular basis. Within this body of knowledge, there are many elements of agreement regarding the process of child development and the factors that affect it for better or for worse. In these papers, we attempted to condense and integrate some of that knowledge into an understandable and logical framework.

In this process of synthesizing an immense body of research-based knowledge into a framework that we believe will provide a basis for determining a productive research agenda, we had to omit some details of theory and the finer points of specific research reports. We freely acknowledge that much of the information summarized is open to more than one interpretation. In addition, there are, no doubt, other possible frameworks for understanding the complex process of child development.

Our goal for offering this framework is to establish a logical model of how a child's experiences within the parent-child relationship may lead to the development of an emotionally healthy and productive adult, as well as how those experiences may prevent the development of destructive or socially undesirable patterns of behavior.

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# *Section 1*

## *Desired Outcomes for Human Development*

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To achieve a meaningful and satisfying life, human beings need two primary areas of competence: the ability to form enduring interpersonal relationships and the capacity for productive activity. One classic definition of a mentally healthy person is, simply stated, one who “has the capacity to love and to work.” These two criteria are surprisingly relevant for describing positive developmental outcomes.

By late adolescence and early adulthood, an effective human being has the capacity to form stable, cooperative, and mutually supportive relationships with other human beings. These take the form of enduring family relationships, as well as congenial interactions with friends and fellow citizens. This capacity includes the ability to responsibly nurture and guide any children one might have. Obviously, antisocial behaviors such as criminal activity, interpersonal violence, and abuse or neglect of children all indicate negative outcomes in social functioning.

The other area of critical importance that develops by early adulthood is the ability to make productive use of one’s time. Again, this may take many forms. In early adulthood this capacity is typically exhibited by organized, sustained efforts to 1) further one’s education, 2) engage in gainful employment, 3) engage in running and maintaining a household, and/or 4) nurture and guide one’s children. For every person, finding a way to make a meaningful contribution to one’s family or society is a central feature of a successful life. Although not every “meaningful contribution” generates an income, most would agree that a positive developmental outcome includes the *capacity* to be self-supporting. Factors that preclude or significantly reduce one’s ability to be productive or support oneself in present-day America can be viewed as negative developmental outcomes. Such factors may include school failure, illiteracy, substance abuse, and the bearing of children before one is ready to provide adequate parenting.

A person who is able to achieve these two important abilities, forming enduring relationships and being productive, also has a better chance to experience a sense of purpose and

accomplishment in life, along with the personal happiness to which we all aspire.<sup>1</sup> What kinds of personal characteristics enable a person to achieve success in relationships and in productive activity, and, conversely, what characteristics interfere? A large body of literature spanning many academic disciplines examines this important question in a variety of ways. We know a great deal about the factors impeding human development, often called “risks” or “risk factors.” However, even in the presence of significant numbers of risk factors, many children develop into responsible adults who function adequately both socially and in the work world. These resilient children usually share at least some common positive developmental characteristics, often called “protective factors.”

The developmental characteristics that contribute to positive outcomes for youth and adults, even in difficult or “risky” circumstances, are usually evident by the time a child is 10 to 12 years old. These characteristics set the child on a path toward successful or unsuccessful adult outcomes. For this discussion, we have organized these characteristics into three areas: social, cognitive/language, and behavioral. We distinguish these three areas in the following ways:

- Social: forming and maintaining interpersonal relationships
- Cognitive and language: thinking and communicating one’s thoughts
- Behavior: following the rules and expectations of society

In addition to these three developmental areas, we discuss the over-arching concept of a person’s control-related beliefs; that is, beliefs about one’s ability to influence or control the events in his or her life. This attitudinal or motivational factor is related both to the development and implementation of social, cognitive, and behavioral skills, as well as a sense of overall personal well-being. Early manifestations of many of these important personal characteristics can be observed in some form as early as age two or three. As we introduce specific characteristics in **Section 2**, we will describe how the early indications might be manifested in the preschool period (“*Early Manifestations*”).

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<sup>1</sup>Discussing all the possible components of “personal happiness” are beyond the scope of this paper. Certainly, many would include religious or spiritual enlightenment in this definition, as well as having a sense of personal satisfaction and altruistic involvement in one’s society. For the purpose of this paper, we have focused on effective personal relationships and productive work because most people in our society agree that these long-term developmental outcomes are critical to the continued success of American society.

In this paper, we focus on personal characteristics that are most closely associated with parental behavior, particularly as it relates to the parent-child relationship. We recognize that other characteristics of the child, such as innate temperament, nutritional status, and general health characteristics are also associated with developmental outcomes. Choosing the developmental areas of social, cognitive and language, and behavior as the focus of our framework does not preclude the importance of other factors. We acknowledge that the child's health and temperament, growing developmental skills, and numerous aspects of the family and environment overlap and influence one another in complex and interactive ways. The intricacies of these interactions is a subject of much exploration and debate, and these explorations have led to transactional (Sameroff & Chandler, 1975; Sameroff & Fiese, 1990) and ecological (Bronfenbrenner, 1979; 1986) models of child development.

Regardless of how personal characteristics emerge in the areas of social, cognitive and language, and behavioral development, together they influence the likelihood of success in the primary challenges of life: formation of supportive relationships and achievement of productive work. For a child, these challenges are represented by the ability to get along with peers and adults and to achieve some degree of academic success. After exploring a range of correlational research across several disciplines, we elaborate one possible causal model in **Section 5** of this paper.

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## *Section 2*

# *Personal Characteristics Related to Successful Youth and Adult Outcomes*

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### **2.1 Social Interactions**

The ability to interact successfully and cooperatively with others is a central life skill. When a child acts in ways that reflect concern and consideration for others, that behavior tends to lead to social responsibility. In contrast, research indicates that behaviors in childhood such as aggression, lying, or stealing (antisocial behavior) often precede later juvenile delinquency and criminality (Farrington, 1987). In addition, aggression and bullying are associated with social rejection (Patterson, 1982), which, in turn, is related to later criminality (Rutter & Garnezy, 1983). We do not mean to imply that these early characteristics and behaviors *always* lead to specific outcomes, just that these interconnections are well established by research and also make sense logically. Both aggression and peer rejection are related to academic, social, and behavioral problems in adolescence (Coie, Lochman, Terry, & Hyman, 1992; Dodge, Coie, Pettit, & Price, 1990; Kupersmidt & Coie, 1990). Peer acceptance appears to be particularly important for later school success. One study found that about 25 percent of children who were seen as socially rejected by their peers in elementary school later became high school dropouts, compared to 8 percent of their socially accepted peers (Asher & Gabriel, 1989). Peer acceptance in third grade is a better predictor of mental health at age 18 than is school performance, IQ, or psychological testing (Cowen, Pederson, Babijian, Izzo, & Trost, 1973). Two personal characteristics, empathy and the ability to interpret what is going on in a social situation, contribute to a child's effective social behavior and peer acceptance, as we discuss below.

#### **2.1.1 Empathy**

Empathy is the capacity to share in another person's emotional response — in essence, to “feel with.” Children who have empathy with others are less likely to develop antisocial behavior both during childhood and later in life (Eisenberg & Mussen, 1989). Children who have difficulty feeling empathy are more likely to be aggressive (Feshbach, 1983). One study found that teaching third and fourth grade children concepts and skills related to empathy and problem solving resulted in a reduction of aggressive behavior and an increase in helping behavior, based on

teacher reports (Feshbach, Feshbach, Fauvre, & Ballard-Campbell, 1983). For adults, the ability to respond with empathy becomes a critical aspect of effective parenting. For example, mothers who experience high levels of empathy are less likely to abuse their children, even when the mothers are experiencing high levels of life stress (Letourneau, 1981).

The ability to perceive and understand another's point of view (social perspective-taking) is a related skill that is also helpful in social relationships. While empathy reflects a child's affective, or emotional, capacity, social perspective-taking is a cognitive skill. Children with antisocial behavior find it difficult to see another child's point of view. Children who are able to take another's perspective behave more cooperatively in social situations (Chandler, 1973).

### *Early Manifestations*

Empathy and the desire to offer comfort are human qualities that can be observed in children as young as two or three years old. Toddlers attempt to comfort others in distress by offering their bottles and stuffed animals, or by trying to draw the attention of an adult (Zahn-Waxler, Radke-Yarrow, & King, 1979). Researchers have observed this capacity for early empathy in the home, in preschools, and in laboratory settings (Dunn & Kendrick, 1979).

### **2.1.2 Interpreting Social Situations**

How a child perceives and thinks about the actions of others helps determine his or her response in a situation. Cooperative children take in and process social information differently than do aggressive children. Aggressive children seem to pay less attention to social cues. They have trouble recognizing and recalling factors that determine the social context of an interaction. In addition, aggressive children often assume that others are out to get them. When faced with an ambiguous situation (such as being bumped on the playground), they are likely to react aggressively. Thus, they are often defensive and hostile with peers (Dodge, 1980; 1985). Cooperative children, on the other hand, are more likely to give the other child the benefit of the doubt and maintain friendly interactions.

## **2.2 Cognitive and Language Abilities**

Cognition refers to the processes of perceiving, recognizing, conceiving, judging, and reasoning in order to obtain knowledge. One of the most important ways of obtaining knowledge is through language. Language is a means of communicating ideas and feelings by accepted signs, sounds, or gestures. Although language and cognition are distinct, they do overlap. First,

cognitive abilities support one's capacity to acquire language. Gradually, as communication skills develop, language becomes an increasingly important means of acquiring knowledge. Language skills such as labeling and categorizing are useful for reasoning and solving problems. Likewise, academic success is dependent upon understanding what is heard or read. Through their comprehension of the oral and written word, children learn to understand abstract concepts.

### **2.2.1 Language Competence**

We communicate to exchange information, ideas, and feelings with others. Although language is not the only medium for communication, it is the most typical one used in school and work settings. Many different linguistic skills are required to express one's self orally and in writing and to understand spoken and written language. These language skills emerge early in life as infants and toddlers interact with significant adults, and they are refined through instruction during the primary school years. Beginning in middle school, the focus of education changes from instruction in the mechanics of language and literacy to the use of literacy and oral language skills to gather, interpret, and convey information. From this point on, students who have difficulty speaking, reading, or writing are at a clear disadvantage for achieving in school.

Adult success is also dependent on communication skills. Individuals who have limited language proficiency with insufficient reading skills are at an extreme disadvantage in our country's job market. Surveys of employers indicate that they consider both oral and written language skills among the most important competencies when hiring employees and rating employee performance. Although oral language skills (speaking and listening) enable people to communicate effectively on the job, literacy skills (reading, writing, using numbers) are also of primary importance.

The recent National Adult Literacy Study examined the link between literacy skills and job/economic success (Kirsch, Jungeblut, Jenkins, & Kolstad, 1993). This national survey found that individuals with limited literacy skills were less likely to be employed, earned less, and were more likely to be employed in nonprofessional occupations than were those who displayed more advanced skills. Not surprisingly, poverty was much more common among individuals with the lowest literacy skills. In addition, higher literacy was associated with one indication of good citizenship — voting in national or local elections. Literacy skills can also counteract the effects of poverty and familial difficulties. That is, individuals who are at risk for poor development because of poverty and family issues improve their chances of success if they become good readers in childhood. For instance, in the Kauai study of individuals followed from birth to age 31/32, better reading skills at age 10 were associated with better ratings of adult adaptation in

high-risk males and with better ratings of work and self-evaluations in high-risk females (Werner & Smith, 1982).

### *Early Manifestations*

Children's language skills grow very quickly during the early years. By age three, most children have the ability to communicate their needs, ideas, and desires. They understand far more than they are able to express. Researchers can measure both receptive and expressive language skills during the preschool period by administering standardized tests or by interviewing parents or other adults who know the child well.

### **2.2.2 Intelligence or Cognitive Functioning**

As with well-developed language and literacy skills, effective thinking and mental processing skills underlie many of the indicators of success for adults. Intelligence (or IQ) tests are often used to measure these cognitive skills. Despite their limitations, IQ scores currently provide our best estimate of cognitive functioning, particularly in later childhood and adulthood. Perhaps most importantly, IQ is predictive of success in American society. In essence, adults with greater cognitive resources achieve greater success both in academic domains — as indicated by grades and achievement scores — and in the economic sphere. In fact, IQ scores are considered by some the best single predictor of performance in many types of jobs (Hunter, 1986).

Cognitive competencies are also linked to better social and behavioral outcomes. Lower IQ scores and poorer school achievement are more prevalent among adolescents considered to be delinquents and adult criminals. Academic failure and low commitment to school are also associated with greater use of drugs and alcohol among adolescents. Conversely, high-risk children with better developed cognitive skills are less likely to become delinquents (Werner & Smith, 1982; Hawkins, Catalano, & Miller, 1992). For example, in the Kauai study, strong cognitive ability in childhood was associated with better psychological adaptation in adulthood. Moreover, in this same group of individuals, academic success was linked to school behavior and self-esteem which were in turn related to adult adaptation.

### *Early Manifestations*

IQ can be reliably measured in preschoolers. By age 5, IQ scores become valid predictors of future school achievement. Such scores remain relatively stable as long as the child's environment remains about the same (Sameroff, Seifer, Baldwin, & Baldwin, 1993).

### **2.2.3 Verbal Mediation**

Verbal mediation is the process of using language to achieve self-direction and self-regulation of behavior. It can be thought of as talking to oneself in an effort to guide problem solving or coping efforts. Researchers (Luria, 1961) have identified a three-step process in the development of this internal speech. First, adults control the child's behavior through verbal direction. Second, the child uses self-directed speech (aloud) to direct and guide his or her own actions. Finally, this speech is transformed to covert inner speech. Psychologists have emphasized the importance of this internalized language in self-regulation. Children who have deficits in verbal mediation skills are more likely to show aggressive behavior (Camp, 1977). Programs in which preschool and elementary school children are taught to verbalize problem-solving strategies are associated with improvements in overall social adjustment, as well as with increases in problem solving skills (Spivack, Platt, & Shure, 1976; Camp, Blom, Herbert, & van Doornick, 1977).

### *Early Manifestations*

Verbal mediation can be observed directly in very young children, since they are still at the overt (or speaking aloud) level. While working out a difficult problem, a three-year-old can often be heard directing and encouraging himself — “Now put this piece here. That's right!”

## **2.3 Behaving Well**

A child's ability to follow rules and conform to the expectations of society is formed early in childhood. By the first or second grade, patterns of cooperative behavior or of noncompliant, aggressive behavior have developed. These patterns are surprisingly reliable predictors of later life adjustment. Research indicates that children who are aggressive and difficult to manage in the early school years are three times more likely to engage in delinquent behavior during their teenage years, including violence and substance abuse (Moffitt, 1990; White, Moffitt, Earls, Robins, & Silva, 1990). One researcher in this area states, “The antisocial acts of a five-year-old may be prototypic of the acts of the delinquent adolescent” (Patterson, 1993).

This downward trajectory is most pronounced for boys, but may apply to girls in a different form — a form that has important implications for society. A study of fourth grade girls who repeatedly got into trouble with teachers and broke school rules found that this behavior predicted early pregnancy. Forty percent of these girls had a child before they finished high school — three times the rate for other girls in their school (Underwood & Albert, 1989). The Concordia Longitudinal High Risk Project, begun in 1976, found that girls with behavior

problems in elementary school were more likely than other girls to become adolescent mothers or single parents, to have higher levels of psychiatric problems, to be less responsive mothers, and to have children with early social problems (Serbin, Schwartzman, Moskowitz, & Ledingham, 1991).

It is common sense that a child's early behavior problems may lead to the outcomes discussed above (juvenile delinquency and teen pregnancy). What may be less obvious is that a child's behavior also contributes to academic performance and relationships with peers. Antisocial behavior is consistently related to poor academic achievement (Hawkins & Lishner, 1987; Wilson & Herrnstein, 1985) and rejection by peers (Cantrell & Prinz, 1985; Dodge, Coie, & Brakke, 1982; Roff & Wirt, 1984). Below, we explore several characteristics that contribute to these child behavior problems that are, in turn, related to long-term outcomes.

### **2.3.1 Impulse Control/Delay of Gratification**

Some children are able to bring their immediate impulses under control and act in a more deliberate way. Other children have difficulty controlling immediate impulses and act "without thinking" (see the discussion of verbal mediation in **Section 2.2.3** above). The tendency to behave impulsively creates problems for children in social and academic settings. Some researchers suggest that behaviors associated with impulsivity may predispose children to low IQ test scores as well as associated outcomes such as school failure, substance abuse, and delinquency (Block, 1995). These children are more likely to behave aggressively or inappropriately, creating rather than solving problems with peers and teachers (Spivack & Shure, 1974). Problems with impulse control in childhood also are associated with the development of adolescent behavior problems (Tremblay, Pihl, Vitaro, & Dobkin, 1994).

Delay of gratification is a related skill. This term describes the ability to sustain self-imposed control of impulses in order to obtain a delayed reward. This ability to postpone satisfaction for a long-term goal is a valuable skill that predicts academic achievement as well as successful coping with frustration and stress.

#### *Early Manifestations*

Researchers and clinicians have standard ways of measuring impulsivity as early as the preschool period. These include checklists completed by parents or teachers, as well as direct measures, such as asking a child to hold still for as long as she can and measuring the time until the wiggles begin. One longitudinal study found that the delay time achieved by four-year-olds (who were asked to resist eating a marshmallow in order to obtain two marshmallows later) predicted positive social and achievement traits in adolescence, including self-control in frustrating

situations, task perseverance, and the ability to concentrate. In addition, this group of students had much higher average SAT scores than a group that exhibited a short delay of gratification time as preschoolers (Shoda, Mischel, & Peake, 1990).

### **2.3.2 Emotional Self-Regulation**

Above, we discussed the implications of a child's ability to control actions or behavior, specifically, to inhibit impulsive behavior. Self-regulation of one's *internal* state is also related to long-term outcomes, particularly the ability to manage angry feelings. Children who are able to modulate their anger show less aggression in social interactions (Patterson, 1982; Patterson, DeBaryshe, & Ramsey, 1989). Conversely, uncontrolled emotion in adults is a common cause of some kinds of violence, particularly domestic violence and child abuse.

The ability to comfort oneself and maintain a positive state of mind in the face of setbacks is an important skill in preventing the onset of discouragement and despair (Rehm, 1977). Depression is an increasingly common mental health problem in adolescents (Achenbach & Howell, 1993; Lewinsohn, Hops, Roberts, Seeley, & Andrews, 1993) and is related to low school achievement and poor social relationships (Kovacs & Goldston, 1991).

Substance abuse may be another long-term outcome that is related to an inability to self-regulate negative emotions. A study of 1,300 relatives of alcoholics found that those who were chronically anxious were most likely to become alcoholics (Merikangas, Leckman, Prusoff, Pauls, & Weissman, 1985). In another study, adolescents being treated for substance abuse were three times as likely to report depressive symptoms as other adolescents (Deykin, Buka, & Zeena, 1992).

#### *Early Manifestations*

During infancy and toddlerhood, self-regulation involves developing the ability to be comforted when distressed, as well as regular patterns of eating and sleeping. As the child becomes a preschooler, one can observe the ability to self-regulate by how well a child can calm him or herself down and appropriately express fear and anger reactions. Later in childhood, even the ability to shift to calmer activities when overstimulated by rough and tumble play is an indication of emotional self-regulation (Hubbard, Coie, & Dodge, 1993). Indicators of emotional regulation can be measured and compared to developmental norms by use of standardized behavior checklists or by direct observation in structured situations.

## 2.4 Control-Related Beliefs

A person's beliefs about the control he or she has over events in life (perceived control) is a central factor in motivating behavior. A vast body of research literature deals with the "locus of control" construct introduced by Rotter in 1966. An internal locus of control refers to the belief that outcomes result from one's own behaviors rather than from factors beyond personal control such as luck or others' behavior. A predominantly internal locus of control is associated with higher motivation, life success, and better mental health.

The locus of control construct was the starting point for an explosion of research that expands and refines the original concept. Repeatedly, research provided evidence that one's belief in his or her ability to be effective is a powerful force. Like *The Little Engine That Could*, a person's belief that he or she *can* is one of the most reliable predictors of actual performance (Bandura, 1977). People develop habitual ways of explaining their successes or failures in life, and those become unspoken assumptions that may affect their subsequent behavior.

### 2.4.1 Optimism

Optimistic people are likely to believe that they have considerable control to cause good things to happen in their lives. That belief is nourished by a particular way of explaining why things happen. For example, two students might both do well on an exam, but interpret that success differently. One student may say "That was an easy test; I got lucky," while another says "I am good at math and I studied hard." Conversely, when things turn out badly, some people take a "victim" stance, feeling like others have all the control. Optimistic people tend to redouble their efforts in the face of failure, since they believe success is in their grasp if they work hard enough or try something new. This style is sometimes called "mastery orientation" and, not surprisingly, it is related to levels of persistence and motivation to achieve (Dweck & Licht, 1980; Weiner & Kukla, 1970).

### 2.4.2 Pessimism

Pessimistic people tend to attribute negative outcomes to *permanent* internal causes, such as low ability. On the other hand, they attribute positive outcomes to external factors over which they have little control, such as luck or other people's whims. Individuals' *interpretation* of events is more powerful in determining their behavior than the facts of the situation. The perception that one is unable to cause good outcomes can result in lack of motivation, or "learned helplessness" (Seligman, 1975; Abramson, Seligman, & Teasdale, 1978), since the individual has no reason to expect that he or she can have a positive influence on life events. A pessimistic

explanatory style is associated with depression in both children (Nolen-Hoeksema, Girgus, & Seligman, 1986) and adults and, in turn, depression is related to a constellation of poor outcomes, including low achievement, poor relationships, unresponsive parenting, and substance abuse.

### *Early Manifestations*

The desire to have an effect on one's environment appears to be an innate motivational force from early infancy on (White, 1959). Very young children invest a great deal of energy in play and exploration leading to accomplishing "tasks" that they appear to define for themselves. These self-initiated behaviors seem to promote a sense of control and competence. When the child's efforts to initiate and follow through with an activity result in encouragement or success, a healthy sense of control develops, supporting persistence, problem-solving, and optimism about one's ability to have an effect on the world. This drive to explore and have an effect is called "mastery motivation." It can be measured in infants and young children by observing their behavior with a toy or other interesting challenge. Two important aspects of mastery motivation are persistence and pleasure; these components foreshadow the development of optimism as it is defined in **Section 2.4.1** above. For example, a toddler who intently and repeatedly tries to get a ball out of a box through a small hole is showing mastery motivation; the child who "gives up" by fussing and pushing the task away may not have the mastery motivation needed to sustain successful exploration and learning.

## **2.5 Putting It All Together**

In this section we have discussed personal characteristics that relate to the development of skills across several areas. The importance of each of these characteristics is supported by a body of research literature. However, researchers often focus narrowly on one area of interest. As consumers of the research findings, it is up to those who design policies and programs to see the "big picture." The personal characteristics discussed here are interrelated, and, taken together, contribute to what is popularly termed "character." The child who can manage impulses and strong emotions, show concern for others, think and communicate well, and optimistically persist in the face of difficulty is a child who is apt to face life's challenges constructively. Such personal characteristics promote positive development, even for children growing up in difficult circumstances. The early manifestations of these skills can be seen and measured in the very young child and their presence help that child cope with the social and intellectual challenges of school. As the child grows, these fundamental skills contribute both to the ability to form and

maintain supportive relationships and to the ability to achieve academic success and go on to make productive use of their time in adult life.

## *Section 3*

# *Parent Behaviors Related to Desired Personal Characteristics*

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Parents and other adults in the child's life are influential in helping a child develop the personal characteristics that contribute to adult success. We note that other children, particularly older siblings, can also be very influential. Since nearly all the research in this area focuses specifically on parents (usually mothers), we use the term "parent" throughout this section, but we assume that many of the findings are applicable to relationships in which another adult assumes primary responsibility for the child's welfare (e.g., grandparent, foster parent). The research documenting the relationship of specific parent behavior to child outcomes falls into three primary categories: 1) nurturing, 2) verbal and cognitive stimulation, and 3) behavioral regulation. These categories reflect distinct bodies of research, but they involve overlapping and related parent behavior.

### **3.1 Nurturing**

The quality of the parent-child relationship has long been acknowledged to be one of the most powerful predictors of optimal child development. Warm, responsive parenting is associated with later child language development (Bee et al., 1982; Eladaro, Bradley, & Caldwell, 1977; Clarke-Stewart, 1973), cognitive development (Bakeman & Brown, 1980; Bee et al., 1982; Escalona, 1987; Lyons-Ruth, Connell, & Zoll, 1989), school success (Werner & Smith, 1982), and behavioral adjustment (Escalona, 1987; Maccoby & Martin, 1983, Pettit & Bates, 1989). Conversely, parents who are less involved and affectionate with their children are more likely to witness a variety of academic and behavior problems with those children as they grow (Olweus, 1980). At the far end of the spectrum, child abuse and neglect are strongly related to poor developmental outcomes, in both the short and the long term.

#### **3.1.1 Supportive Relationships**

One index of the quality of the parent-child relationship during the early years is the attachment, or bond, between the child and parent (Ainsworth & Bowlby, 1991). A large body of

literature explores the relationship of mother-child attachment to later development. Secure attachment in infancy is associated with cognitive and language development (Gersten, Coster, Schneider-Rosen, Carlson, & Cicchetti, 1986), quality of later peer relationships (Jacobson & Wille, 1986; LaFreniere & Sroufe, 1985; Lieberman, 1977; Sroufe, 1983; Sroufe & Egeland, 1991), persistent problem-solving, and good behavioral adjustment (Arend, Gove, & Sroufe, 1979; Erickson, Sroufe, & Egeland, 1985; Greenberg & Speltz, 1988; Harter, 1978; Pastor, 1981; Waters, Wippman, & Sroufe, 1979). It is theorized that these developmental advantages occur because a secure attachment provides the child with a “safe base” from which to explore the environment, thus increasing opportunities for learning and a sense of control or mastery (Ainsworth & Bowlby, 1991). In addition, the early model of a caring relationship motivates and helps the child learn to understand other people (Selman, 1980). Some have suggested that this nurturing attachment figure does not necessarily have to be the child’s mother to have beneficial effects; the critical variables appear to be the sensitivity and continuity of a reliable adult providing responsive care (Kochanek, 1993).

Studies that have examined the factors that promote trusting, secure attachment find that the quality of interaction is the critical factor. The parent and infant both contribute to the development of a reciprocal relationship, but adults have the primary responsibility in determining the quality of the relationship. Repeatedly, researchers find that children of warm, responsive mothers form more secure attachments with them and, later, with others (Ainsworth, Bleher, Waters, & Wall, 1978; Belsky, Taylor, & Rovine, 1984; Crockenberg, 1981; Smith & Pederson, 1988). Most recently, a national study of early child care (NICHD Early Child Care Research Network, 1997) found that a mother’s sensitivity and responsiveness to her child was associated with secure attachment across a variety of child care arrangements.

Even parent-child activities that are commonly recommended may lose their beneficial effects if they occur outside the context of a positive relationship. For example, a mother reading to her child when the two have a secure attachment has a positive effect on the child’s prereading skills, while a mother-child reading in the context of an insecure attachment does not produce the same benefits (Bus & van IJzendoorn, 1988), and may even be counterproductive (Bus, Belsky, van IJzendoorn & Crnic, 1997).

The importance of adult-child relationships does not end with early childhood. Research on children’s resilience in the face of environmental risk suggests that, throughout childhood, having just one warm, supportive relationship with a caring adult is consistently related to lower risk that a child will turn to delinquency, substance abuse, or other maladaptive behavior (Rutter,

1979). Since the quality of the earliest relationship predicts positive development, the parents' sensitivity to their infant is related to their child's later compliance (Bates, Maslin, & Frankel, 1985), better mood, and ability to form cooperative relationships with others. When the child develops these characteristics, it is more likely that the parent-child relationship will remain strong and supportive, providing protection for the child as he or she grows and is exposed to dangers and temptations outside the family.

### **3.1.2 Child Abuse or Neglect**

If warm, attentive, affectionate parent-child interaction with secure attachment is seen as one end of a continuum of nurturing, then child abuse or neglect can be conceptualized as the opposite end (Azar, Barnes, & Twentyman, 1988). Child abuse is usually defined in terms of physical harm to the child. Child neglect covers a wide range of experiences. A parent can neglect a child's physical needs (such as food, cleanliness, and shelter) or a child's emotional needs (such as attention and affection). In most cases of maltreatment, the child experiences a combination of neglect and abuse. There is a large body of research literature indicating that all these interrelated forms of child maltreatment are strongly linked to poor developmental outcomes (Aber, Allen, Carlson, & Cicchetti, 1989).

From the beginning, maltreated children have difficulty establishing secure attachments during infancy and toddlerhood. Later, these same children also have difficulty forming relationships with peers and are at increased risk for behavior problems, delinquency, and adult criminal behavior (Fagan & Wexler, 1987; Kent, 1976; Kinard, 1980; Mueller & Silverman, 1989; Raine, Brennan, & Mednick, 1994; Reidy, 1977; Widom, 1989). Maltreated children are likely to exhibit deficits in empathy and seeing another's point of view, and these deficits are evident at a very young age. Several studies have found that nonabused toddlers respond to a peer's distress with concern and attempts to help or comfort, while abused toddlers are more likely to respond by threatening or attacking the distressed peer (Klimes-Dougan & Kistner, 1990; Main & George, 1985).

Abused children also tend to have ways of viewing the world that work against the development of peer relationships and achievement behavior. Abused children are more likely to assume others are out to get them, responding with defensive aggression to ambiguous situations (Dodge, Bates, & Pettit, 1990; Weiss, Dodge, Bates, & Pettit, 1992). This tendency results in chronic problems developing friendships with others. Maltreated children are also more likely to believe that they have no power to bring about positive events in their lives (Barahal, Waterman,

& Martin, 1981), a belief that is associated with a “victim” orientation, low achievement motivation, and helpless behavior.

The Minnesota Mother-Child Interaction Project, a longitudinal descriptive study, collected information about parenting and child development in a sample of high risk (low-income) families (Erickson, Egeland & Pianta, 1989). By age six, about 25 percent of the sample of 200 children had experienced significant maltreatment, and developmental data indicated that those children had much poorer developmental outcomes than the nonmaltreated children, with particular deficits in exploration, persistence, and other achievement-oriented behavior. They also showed much higher levels of insecure or disorganized attachment. A subgroup of children with “psychologically unavailable” mothers showed dramatic declines in developmental progress during the toddler period, with average scores on a test of mental functioning falling from the top 20 percent of the population (at 9 months of age) to the bottom 20 percent (by 24 months of age). Of a subgroup of children judged “neglected,” 65 percent had been referred for special education services or grade retention by the end of kindergarten (Erickson, Egeland, & Pianta, 1989). The results of this research suggest that *lack* of parental interaction may be more strongly related to cognitive development than physical abuse.

### **3.1.3 Effects of Early Interaction on Brain Development**

In recent years, researchers have discovered evidence that suggests early nurturing and interaction not only affect behavior, but also influence a child’s physical brain development. Although a baby is born with all the neurons or brain cells he or she will ever have, extremely rapid brain growth takes place during the first two years. At birth, the brain is 25% of its adult weight; by age two, it is 80% of its ultimate weight (Berger, 1991). This growth consists primarily of connections between and among brain cells and increased insulation (or “myelination”) of those connections. A key principle of developmental neurobiology is that “the brain develops and organizes as a reflection of developmental experience, organizing in response to the pattern, intensity and nature of sensory and perceptual experience” (Perry, 1993, p. 14).

Various kinds of experiences during the infant and early childhood period appear to affect the brain in different ways. Many of the theories on early experience and brain development are based on animal research that uses rodents and monkeys as models for human brain development. One study found that aspects of a mother rat’s close interaction with her pup (such as licking, warmth, and feeding) regulated the pup’s physiological systems, including heart rate, sleep cycles, temperature, growth, and the immune system (Hofer, 1994). When the pups were deprived of this interaction, their brains developed abnormally, self-regulation was impaired, and growth was

stunted (Hofer, 1987). Some researchers are exploring the possibility that a human mother influences her baby in the same way through rocking, holding, feeding, and gazing at the baby (Field, 1994).

Recent technological developments give us nonintrusive “windows to the brain” that allow new and exciting research to explore human infant brain development. Those developments include measurement of electrical activity in specific areas of the brain (EEGs), functional brain imaging (MRI and PET scans), and improved techniques for measuring biological indications of stress (such as vagal tone and stress hormones). Early findings suggest that stress levels and inhibition in children are related both to the baby’s innate temperament and to the quality of mother-child attachment, with some indication that secure attachments may moderate physiological stress in some children (Nachmias, Gunnar, Mangelsdorf, Parritz, & Buss, 1996).

The cross-disciplinary integration of neuroscience and child development is spawning the relatively new field of developmental neurobiology. Although early research findings offer tantalizing indications that “nature” and “nurture” are intertwined in the development of brain functioning, there is a great deal left to learn about the ways in which they interact.

## **3.2 Verbal and Cognitive Stimulation**

The development of cognitive skills, particularly language abilities, is associated with specific features of the caregiving environment. Verbal interactions with adults are of particular importance.

### **3.2.1 Verbal Responsiveness**

Some parents speak to their children more than other parents, responding to their child’s interests and behaviors with related conversation and verbalizations. The frequency of such parent behavior is related to the child’s success in school, as well as to higher IQ and language scores (Clarke-Stewart, 1973). Although it is important for the child to hear language, it is adult *responses* to the child that are most clearly associated with preschool language ability (Elardo, Bradley, & Caldwell, 1977). Labeling, asking questions, providing information, and reading books to the child are all related to the development of cognitive and language skills (Clarke-Stewart, 1973; Hoff-Ginsburg, 1986; Vibbert & Bornstein, 1989) and school readiness (Laosa, 1982). The relationship between verbal responsiveness and child development has been found not only with parents but also with those who care for the child outside of the home (Carew, 1980; Melhuish, Lloyd, Martin, & Mooney, 1990).

### **3.2.2 Quantity of Language**

One painstaking recent study involved investigating children's language development between 6 and 36 months by obtaining monthly real-life samples of language use in the home (Hart & Risley, 1995). Researchers classified families as "professional, working class, or welfare." Although they found families of all classes to be concerned and invested in their child's development, the data reveal strong differences in the amount of parent-child verbal interaction among families at the different socioeconomic levels. Two striking findings emerged: 1) professional parents interacted verbally with their children almost twice as much as welfare families, while providing six times the amount of affirmative feedback and half the number of prohibitions; and 2) these qualities of parent-child verbal interaction were strongly associated with child vocabulary, language development, and IQ at age three. The researchers hypothesized that parent-child verbal interaction may help explain the developmental differences between middle-class and poor children. Other studies have found similar results in day care settings; the amount of positive, responsive verbal stimulation provided by the caregiver was associated with children's language development (Carew, 1980; Golden et al., 1979; Rubenstein & Howes, 1983).

### **3.2.3 Reading**

Parents reading books and stories to their toddlers and preschoolers is related to their children's later reading ability and school success (Wachs, 1979). Numerous correlational studies document the relationship between reading aloud to children and their subsequent reading readiness (Hiebert, 1988; Mason & Allen, 1986). A new concept, "emergent literacy," has developed to describe the interrelatedness of children's early experiences in speaking, listening, reading, and printed language. Literacy emerges when these functions are prominent and meaningful in a child's real life. Since children naturally imitate the actions of their parents and other important adults, it is not surprising that the role of reading and writing in the family will influence the child's interest in those activities.

So what really happens when a parent reads a storybook to a child? When researchers examine this question, they find a wealth of stimulation. The pictures in books are used to label objects and help the child learn that a symbol can represent a thing. The order of events in a story illustrates sequencing and meaning. Children clamor to reread the same story over and over because it allows them to rehearse these sequences and meanings, mastering them and beginning to decode the printed word (Sulzby & Teale, 1991). The child learns the conventions of print — that letters form words, words go from left to right and top to bottom, and that text can be paired with both visual images and the spoken word (Ehri & Sweet, 1991). In addition, most parents use stories as a jumping off point for additional discussion, questions, and conversation, bringing

us back to the power of interactive language that we discussed previously. Parents who are responsive to their child's signals will adjust their reading routines according to the child's needs, moving from simple picture labeling with a toddler to relating a story to an older preschooler's past experiences and ideas. Moreover, reading a book together creates opportunities for shared positive emotions between parent and child that can enhance and solidify the cognitive experience.

### **3.2.4 Structuring for Success**

How does adult conversation have effects on children's ability to think and communicate? Those who have looked closely at the kind of interaction that is associated with child development describe a particularly beneficial type of adult behavior termed "scaffolding" (Berk & Winsler, 1995). By observing the child's interests and current abilities, and knowing what the next step is, parents can set the child up for success by providing just the right amount of help or encouragement. For example, a toddler is concentrating hard on stacking blocks, looking more elated with each addition. By stabilizing the blocks on a solid surface and handing blocks of the appropriate size, her father can "help" the little girl build to an impressive height without giving orders or taking charge of the activity. The child gains the confidence that comes from independent success, never knowing that her dad has had such an important role. Similarly, a parent can provide verbal scaffolding. For example, an infant reaches out while saying "bah!" The mother responds, "Yes, bottle. You are hungry!" and proceeds to feed the baby. This child will feel like a successful communicator at a very early age and will realize the power of language. Of course, parents can provide this kind of interaction better if he or she has at least some understanding of child development (though not necessarily formal knowledge) as well as the time, interest, and ability to observe and respond to the child's current activities and needs.

### **3.2.5 Physical Environment**

Young children must depend on their parents to "design" the environment in which they live in other ways as well. Many believe that exploring and play are the ways children learn, and the way the home environment is arranged is associated with the child's development. Access to age-appropriate toys, freedom to explore within a safe space (Bradley & Caldwell, 1984), and a predictable household routine are all related to the development of thinking and problem-solving skills (Wachs, 1978; 1979).

## **3.3 Behavioral Regulation**

In the course of rearing a child, one important parental responsibility is to teach compliance to the norms and expectations of society. Certain aspects of the behavioral guidance

provided by parents have strong relationships to the development of socially adaptive behaviors, which, in turn, are associated with supportive and productive relationships with others. In considering behavioral regulation, or discipline, that is related to good long-term outcomes, we must consider not only what parent actions *stop* undesirable behavior but what parent actions will *teach* the kind of behavior that helps the child succeed in life with others outside the family.

In carrying out this responsibility for socializing their offspring, families may place differing priorities on various kinds of behavior. In an increasingly diverse society, it is less likely that there will be common agreement on what behaviors are valued or condemned by the community as a whole. Since society depends on families to pass on expectations and standards, this lack of common agreement regarding values and priorities may have unexpected consequences for children's outcomes, as well as for the health of the larger society.

Differing priorities can be seen in *how* behavior is regulated, as well as *what* behaviors are encouraged or discouraged. In a classic series of studies of parenting styles, researchers (Baumrind, 1967; 1971) identified three primary styles of discipline: authoritarian, permissive, and authoritative. *Authoritarian* parents favored punitive and forceful discipline measures, rarely providing verbal reasoning or positive consequences. Their children were moodier, more easily annoyed, and more hostile than children in other groups. *Permissive* parents were warm and accepting, but provided few consistent limits and little guidance or monitoring of their children's behavior. Their children were more dependent and impulsive than other groups. A group identified as *authoritative* parents employed the style of discipline that was related to the best all-round outcomes. They showed warmth and acceptance and often praised their children's behavior. However, they had clear expectations for social behavior and corrected their children as necessary, accompanied by the verbal reasoning behind their actions. This group had children who were the most socially adept, with more self-reliance and curiosity. The relationship of authoritative parenting to positive development continued through adolescence.

A similar pattern of behavior regulation is associated with relatively better development in high-risk children. In the course of studying demographically high-risk families, researchers Sameroff and Fiese (1990) identified a small subset (20 percent) who were doing better than average on cognitive outcome scores. They found that structured, clear rules accompanied by emotional warmth characterized the parents in these families. They concluded that these parents had been able to create safe, structured, protected environments for their children in the midst of socially chaotic and dangerous neighborhoods.

There is general agreement that a warm, yet structured and consistent, “style” of discipline is related to the best outcomes. There is less agreement on the *specific* discipline practices parents should use. However, based on the research data, we can draw some conclusions about strategies that are generally associated with either good or poor outcomes in children’s behavior.

### **3.3.1 Discipline Practices Associated with Good Outcomes**

Before we consider “beneficial” or “detrimental” discipline practices, we must clarify how we are making those designations. Since we are concerned with long-term adjustment goals, we must consider not only whether a given strategy increases short-term child compliance, but whether it is related to the kind of behavioral *self*-regulation needed to internalize the norms and expectations of society, as well as to work toward one’s own life goals. We are particularly interested in discipline approaches that are related to school success and peer acceptance. With those goals in mind, we focus on the kind of adult behavior that promotes socialization and behavioral self-regulation in young children.

In **Section 3.2**, we discussed “scaffolding,” a way in which the adult structures the environment for a child in order to allow success with challenging cognitive tasks. A similar kind of approach appears to be related to development of competent social behavior and to avoidance of behavior problems. *Prevention* of misbehavior by helping the child assume ever-increasing responsibility for self-regulation appears to be one effective behavior strategy with young children. The children can then develop self-control and positive relationships that promote a sense of competence and optimism. Adults who structure the environment to allow these kinds of experiences are engaged in a kind of “social scaffolding.”

Some examples of social scaffolding may serve to clarify the concept. For instance, one study (Holden, 1983) examined the ways mothers managed their two-year-olds in the supermarket. Mothers who used “proactive controls” (such as making conversation or offering the child an object to play with) had children who behaved better than mothers who used only “reactive controls” (such as scolding or punishing misbehavior). Similarly, other researchers (Roberts & Strayer, 1987) found that children whose parents actively engaged in attempts to help them cope in the face of distress showed a higher level of teacher-rated social and behavioral competence in preschool. These kinds of efforts support the child in learning to self-regulate behavior, and also provide the benefits of verbal and social interaction. However, like the scaffolding that encourages cognitive and language development, these efforts also require motivation, empathy, and responsiveness. These qualities are more likely to be found in parents

who have learned to read their child's cues in infancy, who are responsive to those cues, and who have a mutually satisfying relationship with the child.

Another way that adults promote self-regulation in children is to provide opportunities for a variety of enjoyable experiences that involve sharing and cooperation. Children who are happy, relaxed, and engaged in exploring their environment are more likely to be helpful and cooperative (Eisenberg & Mussen, 1989). Children who have regular, predictable caregiving routines and access to sufficient space and appropriate activities can more easily maintain this relaxed and focused state of mind.

### **3.3.2 Discipline Practices Associated with Poor Outcomes**

There is a convincing body of literature that relates antisocial behavior in adolescents to earlier parental discipline practices (Patterson, DeBaryshe, & Ramsey, 1989). Specifically, families of young antisocial children are characterized by harsh and inconsistent discipline, little positive involvement with the child, and poor monitoring and supervision of the child's activities (Farrington, 1978; Loeber & Dishion, 1983; McCord, 1983). Additionally, in these homes parents tend to respond to their children unpredictably, without regard to whether the child is behaving well or poorly (Snyder, 1977).

These detrimental discipline practices are seen by some researchers as an indication of a more generalized breakdown of caregiving (Azar, Barnes, & Twentyman, 1988), falling somewhere on the parenting continuum along the path to abuse and neglect. In fact, many incidents of physical child abuse occur in the context of frustrated and ineffective discipline. Some researchers have found that a harsh and inconsistent discipline style is associated with poor child development even more than episodes of documented child abuse (Trickett, 1993). Changes in parental discipline practices and monitoring due to intervention effects have been accompanied by subsequent reduction in child behavior problems (Forgatch, 1988; Kazdin, 1987; Webster-Stratton, 1989), although some have questioned how enduring these improvements may be (Greenberg & Speltz, 1988).

## **3.4 Putting It All Together**

We have discussed three separate bodies of research literature that shed light on the role of parental behavior in children's development: nurturing, verbal and cognitive stimulation, and behavioral regulation. Are there any global, or summary, parental characteristics that unite the specific behaviors we have discussed? Over 25 years ago, a review of the existing parenting

literature (Martin, 1975) identified parental warmth and acceptance as “a summary variable of...exceptional importance.” That statement is clearly still supported by the literature we have reviewed, although we might add that parental warmth appears to be “necessary, but not sufficient.” In addition, the parent must have the resources and energy to express that warm concern by attention and action, particularly responsive verbal interaction and clear guidance in responsible social behavior that meets the expectations of the larger society outside the family.

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## *Section 4*

# *Parental Well-Being*

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Thus far, we have focused on the most salient immediate experience of the infant and toddler — his or her day-to-day experiences and primary relationships — largely influenced or provided by the child’s parent or other adult responsible for the child’s primary care. Given the enormous importance of those early relationships and experiences, we must now consider a critical question: What qualities does a person need to provide optimal parenting? In the interest of the child, we must be concerned about the well-being of the parent(s). Personal factors that are linked most closely and consistently to effective parenting behavior include good mental health, adequate education and literacy, and a network of positive social support. In this section, we discuss the implications of these aspects of parental well-being for the well-being of children.

### **4.1 Mental Health of Parents**

Mental health affects one’s ability to interact with others effectively. Emotional and mental problems are particularly destructive to parents, since the quality of the parent-child relationship depends heavily on the adult’s contribution. Research literature within the past ten years has indicated two mental health problems that are widespread and consistently associated with parenting behavior and outcome: depression and substance abuse.

#### **4.1.1 Depression**

Depression exists on a continuum from mild depressive symptoms to incapacitating clinical depression. Clinical depression is diagnosed when a cross-section of symptoms is chronically evident for a period of two weeks or more. It is the most common mental health problem in America today. Depression affects many dimensions of functioning, including mood, motivation, activity level, responsiveness, sleep, and ability to experience pleasure. Increasingly, researchers and clinicians have concluded that depression involves interrelated physical and psychological components. That is, a person’s physical condition and brain chemistry can produce depressive symptoms, but it is equally true that chronic mood problems and stressful life events can produce changes in brain chemistry. The brain chemicals affected include those involved in mood regulation, sleep cycles, pleasure, and irritability.

Mothers of toddlers have a surprisingly high prevalence of depressive symptoms, particularly mothers who face difficult lives. In a recent sample of low income mothers, 42 percent reported significant levels of depressive symptoms (St. Pierre, Goodson, Layzer, & Berstein, 1994). Other researchers found that from 30 percent to 59 percent of adolescent mothers reported symptoms that indicated moderate to severe levels of depression (Leadbeater & Linares, 1992; Lyons-Ruth, Connell, Grunebaum, & Botein, 1990), and, moreover, those symptoms tended to persist over time (Leadbeater, Bishop, & Raver, 1996). Although many depressed mothers are able to continue giving their children the care they need, depressive symptoms can and often do compromise a mother's ability to provide warm nurturing, responsive verbal stimulation, and consistent behavioral regulation (Field, 1995). Maternal depression is also linked to insecure attachment, preschool behavior problems, and self-regulation (Leadbeater, Bishop, & Raver, 1996; Teti, Gelfand, Messinger, & Isabella, 1995). Recent research even indicates differences in infants' brain functioning (as measured by electrical activity) when mothers are depressed (Dawson, Grofer Klinger, Panagiotides, Hill, & Spieker, 1992; Field, 1995). At age three, children whose mothers remained depressed continued to show differences in brain functioning, as well as problems with emotional regulation, higher heart rates, and higher levels of stress hormone (Dawson, 1996).

#### **4.1.2 Substance Abuse**

Parents who abuse or are addicted to drugs and/or alcohol often have difficulty providing their children with adequate care, although these problems may also be related to the social histories of this population. Addiction is associated with histories of childhood sexual, physical, and/or emotional abuse (Deren, 1986); depression and other psychiatric disorders (Regan, Ehrlich, & Finnegan, 1987); and repeated experiences of abandonment or lack of social support (Lindenberg, Reiskin, & Gendrop, 1994). These associated factors, which themselves are predictive of poor parenting skills, make it impossible to infer a direct causal connection between parental substance dependence and child maltreatment (Mayes, 1995).

Regardless of causal connections, researchers find that an increasing number of foster care placements and child abuse and neglect reports are related to parental substance abuse and dependence (Kolar, Brown, Haertzen, & Michaelson, 1994; Wasserman & Leventhal, 1993). Parental substance abuse can interfere with the consistent provision of the warmth, positive support, and consistency needed for optimal child development (Bauman & Dougherty, 1983; Chasnoff, 1988). Moreover, mood alterations caused by substances, such as depression with the use of alcohol or marijuana and euphoria associated with cocaine, make a parent's behavior erratic and thus disrupt the parent-child relationship (Hawley, Halle, Drasin, & Thomas, 1995).

Children exposed to heavy drug environments are less likely to have secure attachments to their mothers, show less organized play as toddlers, and have difficulties regulating their feelings and impulses (Rodning, Beckwith, & Howard, 1989; 1991).

## **4.2 Education and Literacy of Parents**

Achievement of literacy and graduation from high school are American milestones that provide life advantages both to the graduate and to the children of the graduate. The ability to read and write are becoming minimum prerequisites for most jobs that offer a chance to provide one's family with the basic necessities of life. In addition, a large body of literature suggests that low levels of parent education are strongly associated with several indicators of less than optimal child development, including impaired play behavior (Fewell, Casal, Glick, Wheeden, & Spiker, 1996), mild mental retardation (Yeargin-Allsopp, Drews, Decoufle, & Murphy, 1995), behavior problems, and poor academic achievement.

Parental literacy is closely linked to education. The ability to read and to communicate easily with words helps a parent to provide the responsive verbal interaction that is so important to the developing child. Parents who can cuddle up and read their child a bedtime story and who are able to verbally explain cause and effect prepare their children for the language-rich world of school. In addition, the verbal self-instruction that leads to planning and impulse control requires exposure to clear, consistent verbal direction from parents. Adults who are adept with words can more clearly communicate their values and expectations to children.

## **4.3 Social Support of Parents**

The term "social network" refers to the links between people, or those "who make a difference in your life" (Cochran & Niego, 1995). More specifically, social support is the emotional, instrumental, or informational help others provide to an individual. The availability of social support is related to better mental health, better parent-child interaction, and better child outcomes. This association is strongest in families under stressful conditions, such as having a baby with an irritable temperament (Crockenberg, 1988).

Research in this area has identified some specific aspects of support that are particularly helpful. For mothers of young children, the availability of two aspects of social support are particularly important: someone to assist with child care and someone to turn to for emotional support. Child care support (babysitting, discussion of child-rearing problems) is positively linked

to the quality of mother-child interactions; low-income mothers with such support are less dominating, emotionally warmer, and more responsive to the child's needs (Longfellow, Zelkowitz, Saunders, & Belle, 1979). According to self-report, adolescent mothers with high levels of emotional support are less likely to reject, ridicule, or threaten their children (Colletta, 1981).

These benefits extend to the developmental outcomes seen in children. More secure mother-child attachments are observed when there is adequate social support to the mother, particularly when mothers are coping with irritable babies (Crockenberg, 1981). Researchers studying older children (ages 9 to 11) found that social skill with peers, the child's friendship networks, and school adjustment are all related to the number of dependable adult friends in the family's social network (Homel, Burns, & Goodnow, 1987).

Exactly how does this relationship among social support, parenting, and child outcomes work? One intriguing notion is that the presence of "social support" may be partially dependent on the parent's relationship skills, skills that also contribute to better parent-child relationships and subsequent child outcomes. One study compared neglectful mothers with others in the same neighborhood and found that the neglectful mothers had a more negative view of how friendly and supportive their neighbors were (Polansky, Gaudin, Ammons, & Davis, 1985). These mothers also *offered* less help and support to others, based on both their own reports and reports of their neighbors. It is possible that difficulties in interpersonal relationships are expressed both in the inability to maintain supportive adult ties and in problems forming satisfying parent-child relationships (Crittenden, 1985).

#### 4.4 Putting It All Together

Adults who have a history of a nurturing environment as children are more likely to exhibit the impulse control, verbal abilities, optimism, and social skills that allow them to develop into nurturing, stimulating parents. Those adults who do not receive adequate family support and nurturing are *more likely* to suffer from pessimism, depression, and substance abuse; to fail to develop academic and literacy skills; to drop out of school; and to find it difficult to form stable, supportive relationships with others. Parents who have these personal disadvantages are unprepared to offer their own children the kind of parenting that promotes optimal growth, even though they may love their children a great deal. Mental health, education, and social support are all factors that can promote or hinder the motivation, knowledge, or skills a person needs to provide a child with nurturing, responsive verbal stimulation, and consistent behavioral guidance.



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## *Section 5*

# *One Causal Model of Child Well-Being Outcomes*

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Up to this point in our paper, most of the information presented has focused on the *correlations* among personal characteristics, parental behavior, parental well-being, and a child's eventual success in school and relationships. We have tried not to imply that one thing causes another, since we cannot determine causality from correlations alone. However, in this section, we present one logical way of looking at *how* these factors may be related.

According to the model we propose, the development of personal characteristics related to a successful life depends on the *integration* of earlier competencies into later modes of functioning. In this way, early adaptation tends to foster later adaption and integration of mature social/emotional, intellectual, and behavioral competencies. In contrast, when development is impaired at an early age, there is a lack of integration of the various competencies that are required for adaptation at succeeding levels of development. Thus, disturbances in young children's social, emotional, behavioral, and cognitive functioning may cause more pervasive disturbances at older ages.

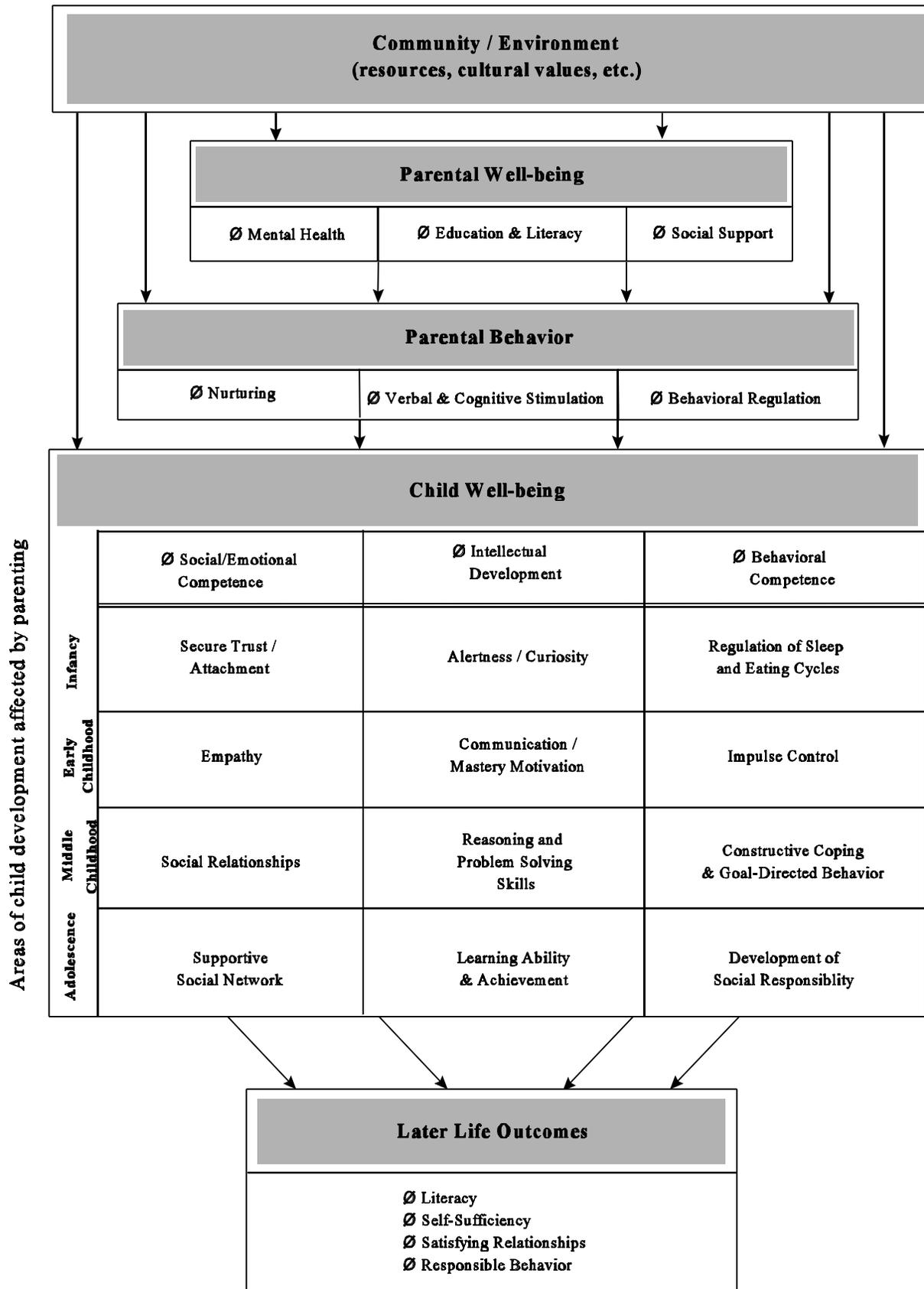
If early development is influenced by the quality of parent-child interactions, then lack of adequate early caregiving may adversely affect stage-specific achievements that lay the foundation for personal competencies. Such achievements include emotional regulation during the first year, attachment during the second and third year, communication and formation of cooperative relationships during the preschool years, and self-control, motivation, and academic competence during the school years. Transactional theory (Sameroff & Chandler, 1975) suggests that the impact of direct developmental influences, such as parenting behavior, varies as a function of the child's own characteristics and of the larger environmental context. Following this logic, we can obtain a more complete depiction of the possible pathways to outcomes by including pertinent risk and protective factors (Schneider-Rosen, Braunwald, Carlson, & Cicchetti, 1985). Complex person-environment interactions mean that development is ever changing and that every outcome has multiple reciprocal determinants.

The notion of resiliency or the capacity for successful adaptation in the presence of severe adversity (Garmezy, 1993) is particularly important in discussions of children who live in difficult circumstances. Resilience is thought to develop over time by making use of environmental and personal resources. Thus, although successful adaptation at one stage serves as a protective factor for future developmental challenges, it cannot be considered an “inoculation” against future risk. This point is illustrated by findings reported by researchers (Egeland, Sroufe, & Erickson, 1983) from a longitudinal Mother-Child Project of 267 high-risk children. They indicated that some of the 44 children who were maltreated when they were infants or preschoolers displayed competence in meeting specific challenges at specific ages. Some of the factors that were associated with adaptation were foster-care placement, the availability of a caring adult, and an organized classroom environment that included a concerned teacher. Importantly though, none of the children was found to be resilient across all domains during childhood.

The model of child well-being in *Exhibit 5.1* illustrates the kinds of developmental achievements that typically occur at given life stages in the domains of social-emotional, intellectual, and behavioral functioning. Each of the boxes represents the key achievements that underlie the development of personal characteristics that lead to later life success. For the sake of simplicity, this depiction does not represent the overlapping influence of competencies from different domains. For instance, the capacity for regulation of states in infancy lays the foundation for impulse control, which itself is a precursor of the ability to control aggression, and control of aggressive impulses is one of the major deterrents of criminal behavior. However, social-emotional competencies such as the ability to form social relationships, social-cognitive skills such as social information processing, and avoidance of risky behaviors such as substance abuse also play an important role in an individual adopting a life that is crime free.

At the same time, the contributions from the family such as a nurturing environment and adequate supervision provide the context in which these achievements develop; in the presence of a hostile or indifferent parent-child relationship, many of these social competencies are less likely to develop adequately. Other characteristics of the environment, the child, and the larger community can either facilitate or impede development. For example, a depressed mother may fail to respond to a child’s emotional overtures, increasing the risk for social-emotional maladjustment. On the other hand, the child who has a temperament that elicits positive responses can perhaps attain a satisfying relationship with another adult that will counteract the stresses of a neglectful home life. Finally, the larger community also contributes to the child’s developmental outcomes through its availability of resources and the cultural milieu.

Exhibit 5.1 Model of Child Well-Being



In this paper, we have focused on the foundations of the personal characteristics depicted in this model and the parental behaviors that are related to those characteristics. The well-being of parents helps to determine what kind of parent-child relationships they are able to achieve. Of course, as the child grows and develops, he or she will be exposed to myriad influences beyond the family. For some, the environmental risks of violent neighborhoods, poor schools, and pervasive drug use will create a developmental minefield. However, *all other things being equal*, the child who has the solid foundation promoted by beneficial early caregiving will be more resilient and more *likely* to sidestep the mines.

## *Section 6*

# *Limitations of the Research Reviewed*

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Now, let us take a critical look at what we have attempted to do in this paper. Keeping in mind the long-term goals of stable relationships and productive work, we have presented the kinds of personal characteristics that are related to those goals. Then we have examined the links between these characteristics and certain kinds of interactions and experiences during early childhood. Finally, we discuss how parents well-being affects their ability to provide children with beneficial interactions. These are logical and compelling connections, supported by a large body of empirical literature.

However, it is important to note that most of these research findings are based on correlational data, rather than on experimental design. In academic research, “statistical significance” is the criteria for concluding that variables are related. Achieving statistical significance depends on many factors, including the size of the sample and the psychometric properties of the measures one uses. It is likely that some relationships that are statistically significant may not have meaningful implications for everyday life. In addition, documenting a correlation between two factors does not prove that one factor *causes* the other. When it comes to correlations between parenting behavior and child characteristics, there are many other variables to muddy the water.

First, with parents and children, there are common genetic factors to consider. It is possible that many personal characteristics are at least partially biological in origin. That being the case, it is not surprising that parent behavior is positively correlated with child behavior. Both could be caused by a third factor — their genetic heritage. However, the classic “nature vs. nurture” debate has become increasingly complex as scientists become more aware of the interactive influence between genetic heritage and environment. In the academic world, attention has turned to just how and in what way nature and nurture interact, rather than simplistic notions of independent influence.

Another limitation of the available research is the fact that it is based only on *subgroups* of the general population. Findings in one sample may not be applicable to another subgroup. For example, findings that result from research with white, educated, middle-class parents (who are

the most easily accessible research subjects in many academic communities) may not be equally applicable to poor, black, inner-city parents and children or to new immigrants. In fact, researchers often find that patterns of correlations differ by race or by sex.

We raise these issues not to discount the importance of research findings, but to recognize that we cannot always be certain about the knowledge we think we have. Early intervention research may be able to shed additional light on these issues. Findings not only may indicate how effective a particular approach may be, but also may elucidate the very nature of early development. Evidence that we can promote development by influencing the environment is certainly compelling evidence for causal relationships between the environment and development.

In this paper we have discussed how specific personal characteristics may begin to develop very early in childhood and, as they continue to develop, are correlated with later life success. In addition, we have suggested how various aspects of parental behavior and well-being may influence the development of those characteristics. Although the parent-child relationship appears to be the most powerful influence in promoting a child's resilience and well-being, the family exists in the context of a community. This leads us to **Part II** of the *Factors in Child Development* series. In this next paper, we explore the role of family and community in child development.

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