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Chapter 22

Child Physical Abuse and Neglect

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DESCRIPTION OF THE PROBLEM AND CLINICAL PICTURE

Although poor and inhumane treatment of children is not a new phenomenon (Doerner & Lab, 1998; Wolfe, 1999), child physical abuse and neglect were not identified as serious social problems until the 1960s, with the publication of Kempe and colleagues' description of battered-child syndrome (Kempe, Silverman, Steele, Droegemueller, & Silver, 1962). In this influential study, Kempe and colleagues described the clinical manifestation of this syndrome in terms of the deleterious physical consequences maltreated children experienced, ranging from undetected outcomes to those that cause significant physical impairments. Rather than exploring the potential psychological sequelae of maltreated children, Kempe focused on detailing the psychiatric profiles of abusive parents. They concluded that, although not all maltreating parents possess severe psychiatric disturbances, "in most cases some defect in character structure is probably present; often parents may be repeating the type of child care practiced on them in their childhood" (p. 112). Since Kempe and colleagues' original characterization of physical abuse, professionals have grappled with exactly how to define child maltreatment. As many have pointed out, child maltreatment is a complex and heterogeneous problem (e.g., Cicchetti, 1990; Wolfe & McGee, 1991; Zuravin, 1991) that is difficult to define (Wolfe, 1987, 1999). In a summary of definitional considerations, Zuravin (1991) suggested that operational definitions of abuse and neglect should differentiate among subcategories of maltreating behavior and should consider issues such as severity and chronicity. Before we discuss the respective definitions of child physical abuse and neglect, we will briefly review the legal aspects of these definitions.

Legal Aspects

In 1974 the federal government established a minimal set of child protection laws (the federal Child Abuse Preven-

tion and Treatment Act [CAPTA]) and required each state to adhere to CAPTA guidelines (National Clearinghouse on Child Abuse and Neglect [NCCAN], 2003b, 2004b). These seminal laws were most recently amended and refined in 2003 by the Keeping Children and Families Safe Act, which conceptualizes child maltreatment minimally as (1) "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse, or exploitation" or (2) "An act or failure to act which presents an imminent risk or serious harm" (NCCAN, 2004b, p. 1). With the exception of these federally mandated criteria, child abuse and neglect laws vary from state to state, including the degree to which they include exemptions (e.g., cultural or religious practices, corporal punishment) and whether they encompass specific or broad definitional categories (NCCAN, 2003a).

Definition of Child Physical Abuse

Aside from these basic federal requirements, a single conceptual framework has yet to emerge for child physical abuse. Establishing an operational definition of child physical abuse is difficult for several reasons. First, there is wide variation in how people view corporal punishment (e.g., spanking, slapping), ranging from the belief that any physical behavior directed at a child is completely unacceptable (e.g., Straus, 2000) to the view that physical punishment is an effective and appropriate method of discipline. This lack of agreement makes it difficult to distinguish between physical acts against a child that represent an extreme disciplinary method and those that qualify as abuse (Hansen, Sedlar, & Warner-Rogers, 1999; Kolko, 2002). In addition, although physical injury may indicate the presence of abuse, it is important also to consider the many factors surrounding abusive behavior, including the prevalence, time frame, severity, age of onset, and chronicity of abuse (Hecht & Hansen, 2001; Widom, 2000; Wolfe, 1987; Zuravin, 1991) as well as the impact of cultural and community values on parents' socialization practices (Wolfe, 1987).

Despite difficulties in formulating a unified definition of child physical abuse, several concepts have converged in the literature to provide some conceptual consistency. For example, because of the direct, explicit, and invasive nature of physical abuse, this form of maltreatment has been conceptualized as an act (or acts) of commission in which a caregiver intentionally inflicts physical pain or injury upon a child (see Hansen et al., 1999; Warner-Rogers, Hansen, & Hecht, 1999; Zuravin, 1991). Consistent with this notion, NCCAN (2004b) defined child physical abuse as “physical injury (ranging from minor bruises to severe fractures or death) as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting (with a hand, stick, strap, or other object), burning, or otherwise harming a child” (p. 2). Within this definitional framework, NCCAN maintains that, regardless of the caregiver’s intent, injurious behavior imposed upon a child invariably constitutes abuse. In the Third National Incidence Study of Child Abuse and Neglect (NIS-3), a thorough, federally mandated examination of the incidence, characteristics, and consequences of child abuse in the United States, child maltreatment was defined by two standards: the Harm Standard and the Endangerment Standard (Sedlak & Broadhurst, 1996). According to the former standard, children were classified as abused, neglected, or both if maltreatment resulted in “demonstrable harm” (p. 4). The latter standard expanded this by including children who had been abused, neglected, or both but had not yet suffered from observable or known consequences.

Definition of Neglect

In contrast to the acts of commission that comprise physical abuse, neglect is said to reflect caregiver acts of omission, or deficiencies in providing for the child in a manner that promotes healthy growth and development (see NCCAN, 2001; Warner-Rogers et al., 1999; Zuravin, 1991). More specifically, NCCAN (2004b) defines neglect as a “failure to provide for a child’s basic needs” in one or more of the following areas: physical, medical, educational, and emotional (p. 1). These categories have also been extended to include additional subtypes such as mental health neglect (Erickson & Egeland, 2002), supervisory neglect (National Research Council, 1993), and abandonment (Barnett, Miller-Perrin, & Perrin, 1997). Thus, neglectful behaviors include acts such as failure to provide children with proper nutrition, safe and sanitary shelter, and adequate clothing; failure to protect children from harm; failure to be attentive to a child’s physical and psychological or emotional needs; and failure to seek appropriate medical, mental health, or educational services for a child (Bar-

nett et al., 1997; Erickson & Egeland, 2002). Finally, it is important to note that neglect may vary across cultures, religions, and communities (NCCAN, 2004b). For instance, NCCAN (2003a) stated that the most prevalent exemption in state statutes is withholding medical care from an ill child because of religious affiliation. In 2003, states including Arizona, Connecticut, and Washington exempted the religious health-related practices of the Christian Science community.

Despite what may initially seem like rather clear-cut definitional criteria, several factors make it difficult to operationalize neglect. One such factor involves the inevitability of placing a subjective description on what so-called adequate parenting or caregiver behavior involves (NCCAN, 2001). Wolfe (1999) delineated this notion by suggesting that parent-child relationships cannot be understood in terms of dichotomous labels. Rather, Wolfe described a continuum of parenting behaviors, including *child-centered behaviors* (e.g., open communication) that encourage healthy growth and development; *borderline methods* that approximate inappropriate parenting behaviors (e.g., rigidity, coerciveness); and lastly, *inappropriate, abusive, or neglectful methods* that reflect readily harmful parent-child interactions. In examining the neglect literature, Straus and Kantor (2003) posited two conceptual concerns that emerged in their review. First, they questioned whether neglectful caregiver behavior must be intentional or whether confounding causes such as poverty and lack of knowledge should be considered as mitigating factors (also discussed by Erickson & Egeland, 2002, and NCCAN, 2001). These authors also considered whether caregivers who do not shield children from potentially deleterious events, such as domestic violence, should be considered neglectful. Regardless of the aforementioned factors, many professionals have suggested that definitions of neglect should not be contingent upon the presence of short-term sequelae because, in many cases, the effects of neglect do not emerge in the immediate aftermath of maltreatment (e.g., Erickson & Egeland, 2002).

Features of Child Physical Abuse and Neglect

Because child physical abuse and neglect involve interactions between a child or adolescent victim and an adult perpetrator, these phenomena are not represented as a unique classification within the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision (*DSM-IV-TR*; American Psychiatric Association, 2000). Child maltreatment can, however, manifest in a range of symptoms that span various *DSM-IV* diagnostic criteria. Although there is no telltale symptom pattern indicative of abuse or

neglect, examining the range of potential physical, emotional, and behavioral correlates helps to elucidate a typical clinical picture of child maltreatment. In general, physically abused and neglected children may experience a variety of impairments, including intellectual or academic difficulties, diminished peer relationships, and disturbed attachment with caregivers. Studies specifically examining child physical abuse have revealed linkages to affective dysregulation (e.g., depression; Johnson et al., 2002), cognitive impairment (e.g., language-delays; Eigsti & Cicchetti, 2004), and externalizing behaviors (e.g., heightened oppositionality and aggression; Trickett & Kuczynski, 1986). Further, physically abused children may demonstrate fear around adult figures and resist reunification with parents (e.g., after school; NCCAN, 2003c). Research on neglect has documented associations with various internalizing psychological factors (e.g., self-esteem, disrupted attachment; Egeland, 1991) as well as cognitive deficits, particularly when coupled with a child's failure to thrive (Mackner, Starr, & Black, 1997). In addition to these correlates, neglected children may present as physically unclean or unkempt, be repeatedly truant or absent from day care or school, and steal essential items from others (NCCAN, 2003c).

PERSONALITY DEVELOPMENT AND PSYCHOPATHOLOGY

Predisposing Personality Characteristics

As noted, child physical abuse and neglect are inherently interactive phenomena. Most efforts to understand the origins of abuse and neglect have focused on one side of this equation by examining parental risk factors for abusive behavior. It is also possible, however, that certain personality features of children may place them at risk of being abused or neglected. Child temperament and disruptive behavior patterns are two such factors. Although children bear no responsibility for being maltreated, both of these constructs have been examined as factors that may increase their vulnerability to abuse or neglect.

Temperament is believed to encompass the biological rudiments of adult personality (Kagan, 1994). It has been suggested that children who are temperamentally difficult—that is, those who are irritable, cry frequently, are hard to soothe, and display negative emotionality—may elicit physically harsh or neglectful behaviors from caregivers. Presumably, this is because the added stress and demands of caring for temperamentally challenging children can overwhelm parental coping and lead to the use of harsh or neglectful parenting. This notion is based on early writings highlighting the bidirectional nature of par-

ent-child socialization (e.g., Bell, 1968), as well as the notion that child temperament impacts interactions between caregiver and child (Thomas, Chess, & Birch, 1968). In considering the literature on this topic, Erickson and Egeland (2002) are skeptical of this connection, noting that early writings addressing child irritability and fussiness (e.g., Gil, 1970; Parke & Collmer, 1975; Thomas & Chess, 1977) were limited by retrospective designs and potentially biased parental reports of temperament. They further point out that parental responsiveness to children has been shown to overcome challenging temperamental characteristics (Brachfield, Goldberg, & Sloman, 1980; Sameroff & Chandler, 1975). Hence, based on current evidence, it cannot be concluded that temperamental factors significantly increase the risk of abuse.

Early comparisons of maltreated and nonmaltreated children revealed that youths who had been abused were more likely to exhibit aggressive and defiant behaviors during interactions with parents (Bousha & Twentyman, 1984; Trickett & Kuczynski, 1986). However, these investigations did not reveal whether such behaviors had actually provoked parental abuse or were simply the result of maltreatment. In addressing this issue, other studies have used experimental designs to explore how parents respond to children displaying different degrees of aversive behaviors (Anderson, Lytton, & Romney, 1986), as well as how parents interact with child confederates instructed to behave aggressively toward peers (Brunk & Henggeler, 1984). In both cases, child misbehavior has been found to elicit more coercive parental responses. In a similar vein of research, it has been noted that children with oppositional defiant disorder are more likely to be abused than are children with internalizing disorders or those with other types of externalizing disorders (Ford et al., 1999). Thus, there appears to be some credence to the possibility that disruptive behavior increases a child's risk for experiencing physical abuse.

Personality Factors Associated with Resilience

Although difficult temperament and disruptive behavior have been examined as risk factors for abuse, other personality features may serve to protect against the negative consequences of maltreatment. Moran and Eckenrode (1992) explored whether locus of control and self-esteem buffered against depression in maltreated adolescent females and a comparison group of nonmaltreated peers. An internal locus of control for positive events and higher self-esteem both interacted with maltreatment status in predicting depression, suggesting that they serve a protective function. Further, those who experienced maltreatment during child-

hood were less likely than those whose abuse started during adolescence to have these protective personality characteristics. Heller, Larrieu, D'Imperio, and Boris (1999) also identified internal locus of control, in addition to external attributions of blame, ego control, and resilience, as personality features that guarded against the negative impact of maltreatment. In examining some of these same attributes longitudinally, Cicchetti and Rogosch (1997) found that the personality characteristics of positive self-esteem, ego resilience, and ego overcontrol were predictive of resilience over a 3-year period. These findings were in contrast to resilience in nonmaltreated children, which was associated more with relationship factors (e.g., emotional availability of mothers) rather than personality characteristics.

The Role of Attachment

Regardless of a child's premorbid characteristics, an important challenge for researchers is to determine whether abuse and neglect impinge upon the course of normal development in ways that disrupt emerging personality organization. An attachment perspective is one theoretical framework that has often been used to understand these processes. The experience of maltreatment has frequently been linked to a range of attachment-related difficulties, including insecure bonding with caregivers, problems with emotional regulation, and negativistic views of self and others. The following is a brief discussion of these issues and their relation to early personality development among maltreated children.

The concept of attachment derives from Bowlby's (1969) theory and refers to the quality of parent-child bonding, which is believed to have a strong influence on how children learn to regulate their emotional responses and behaviors. Classic studies by Ainsworth, using the Strange Situation paradigm, led to the identification and classification of several primary attachment patterns, including secure, anxious ambivalent, avoidant, and disorganized types (Ainsworth, Blehar, Waters, & Wall, 1978; Main & Solomon, 1986). Insecurely attached children (the latter three classifications) are deprived of comforting caregivers who consistently respond in a sensitive manner to their physical and psychological needs. Because the family environments of abused and neglected children are similarly harsh and unresponsive, an attachment framework has been applied to understand the developmental experiences of maltreated children. Studies confirm that physically abused children experience attachment difficulties (Finzi, Cohen, Sapir, & Weizman, 2000). More specifically, physically abused youth have been found to display avoidant attachment styles, while neglect has often been linked to the development of anxious or ambivalent patterns of attachment

(Crittenden, 1985; Finzi, Ram, Har-Even, Shnit, & Weizman, 2001). The absence of a secure base of attachment results in maltreated children lagging behind peers in their cognitive and social development (Sroufe, Carlson, Levy, & Egeland, 1999), which may set the stage for later psychopathology and personality difficulties.

An important component of Bowlby's (1969) theory is the notion that infants and children develop mental representations of self and others (known as internal working models), that are derived from the quality of parent-child relationships. Thus, children whose parents are sensitive and responsive to their needs will acquire positive models of self and others. For maltreated children, however, who lack attachment security, internal representations of self and others appear to be negativistic and include perceptions of maternal figures as untrustworthy (Toth, Cicchetti, Macfie, & Emde, 1997). Neglected children, in particular, may have difficulty viewing themselves in positive terms (Toth et al., 1997). Of relevance to personality adjustment is the possibility that negative representational models may endure and be generalized to encounters with other individuals, thereby impacting lifelong interpersonal adjustment (Howes & Segal, 1993; Lynch & Cicchetti, 1992; Toth & Cicchetti, 1996).

A third attachment-related concern is that of emotional regulation, or the ability to effectively manage and control the expression of intense emotional experiences, particularly those that are negative (Cicchetti, Ganiban, & Barnett, 1991). Emotions serve a valuable function as an internal barometer of the external world, allowing for interpretation of external events in positive or negative terms and providing the impetus for adaptive responding. In the case of child maltreatment, the development of emotional regulation may often be disrupted. Abuse and neglect create a harsh and unpredictable world for children, one inhabited by caregivers who fail to provide the guidance and learning experiences needed to make sense of intense emotions. In fact, rather than eliciting comforting responses, negative emotional expressions by children, such as crying, may be met with invalidating or disapproving responses from abusive parents. This is concerning because parental socialization of emotional regulation in children has been shown to mediate between maltreatment experiences and children's management of their emotional expressions (Shipman & Zeman, 2001).

Research with psychiatric patients has linked poor attachment with the long-term development of personality difficulties (Nakash-Eisikovits, Dutra, & Westen, 2002). The same may be true for maltreated children, whose pervasive attachment difficulties may set a course for maladaptive personality formation. Indeed, in one of the few studies to specifically examine early personality characteristics of

maltreated children, Rogosch and Cicchetti (2004) applied the Five Factor Model (FFM) to compare abused and non-abused 6-year-olds on several personality dimensions, including extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Results showed that, with the exception of extraversion, maltreated children differed from their non-maltreated peers on all dimensions assessed, in directions that were indicative of poorer adaptation. Abused children were also more likely to be represented in maladaptive personality clusters, while those who had been both physically abused and neglected showed particularly problematic personality profiles. Finally, these researchers found that personality organization was relatively stable between the ages of 6 and 9 years among abused children, suggesting that these maladaptive personality profiles may endure across time.

EPIDEMIOLOGY

As previously discussed, operationally defining child physical abuse and neglect is problematic due to a number of thorny conceptual issues. Despite these challenges, official estimate reports have provided valuable information with which to measure the magnitude of victimization. Although these reports use nationally representative samples, data from several of these wide-scale studies will be presented. Then, a brief overview of demographic variables associated with abuse will be discussed.

National Incidence Studies

Data for the latest National Incidence Study of Child Abuse and Neglect (NIS-3) were collected during 1993 and 1994. Findings from this study, published by Sedlak and Broadhurst (1996), revealed alarming rates of child maltreatment. For example, when utilizing the harm standard (i.e., children who were harmed by abuse or neglect), 381,700 children were physically abused, 338,900 children were physically neglected, and 212,800 were emotionally neglected during the data-collection period. Under the endangerment standard (i.e., children who were abused or neglected but not yet harmed), 614,100 were deemed at risk for harm from physical abuse, 1,335,100 from physical neglect, and 585,100 from emotional neglect (Sedlak & Broadhurst, 1996). Similarly, data from the National Child Abuse and Neglect Data System (NCANDS, 2004a), a database reflecting cases reported to Child Protective Services, revealed that the national victimization rate was 12.3 per every 1,000 children (18.6 percent physically abused; 60.5 percent neglected; NCCAN, 2004a). Finally, according to the *Injury Fact Book*, an estimated 1,100 children died from

some form of child abuse or neglect during 2001-2002 (Centers for Disease Control and Prevention, 2001).

Child Age and Gender

In addition to basic prevalence findings, several demographic variables such as child age and gender have been examined in relation to physical abuse and neglect. Official estimate reports have yielded mixed findings regarding associations between age and child physical abuse. Some authors have reported that the risk of abuse peaks between the ages of 3 and 12 years, with children outside of that range experiencing relatively less risk (Wolfner & Gelles, 1993). Others have reported little association between child age and child physical abuse (Connelly & Straus, 1992), or negative associations between minor (but not severe) physical abuse and age (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998). Despite these inconsistencies, it appears clear that young children are more likely to be severely injured as a result of child physical abuse (Lung & Daro, 1996). With regard to neglect, incidence appears to peak around age 6 years and decline thereafter (Sedlak & Broadhurst, 1996). The most serious cases of neglect involving injury or death tend to occur to younger children (Wang & Daro, 1998).

Findings regarding child gender are similarly inconsistent, with some sources showing no gender differences and others reporting differences only in certain circumstances. For example, the second National Family Violence Survey found that boys were more likely to experience child physical abuse, regardless of severity (Wolfner & Gelles, 1993). On the other hand, data from the National Center for Child Abuse and Neglect (DHHS, 1994) revealed that boys 12 and under were more likely to be abused, but that girls 13 and older were at greater risk. Additionally, NIS-3 (Sedlak & Broadhurst, 1996) data documented a greater percentage of boys who experienced emotional neglect than girls. On the whole, there is little evidence that gender is a risk factor for neglect (Claussen & Crittenden, 1991; DHHS, 1994).

ETIOLOGY

Although child abuse has received extensive attention since Kempe and colleagues' (1962) identification of battered child syndrome, the development of a comprehensive etiological framework of child physical abuse and neglect is challenging because of the complex and multidetermined nature of these phenomena. The National Research Council Panel on Research on Child Abuse and Neglect (1993) defined several barriers to formulating an integrative etiological model, including the complexity and deviance of

maltreating behavior, the shifting definitions of abuse and neglect, the interactive pathways of maltreatment, and the low overall prevalence of abusive behavior. In addition, Azar (1991) suggested that early attempts to understand child maltreatment were focused on creating and implementing treatments rather than defining the etiology. Consequently, the development of etiological models has been a relatively slow process (Azar, 1991) that resulted in a lag between theory, research, and practice (Runyan et al., 1998). The earliest etiological conceptualizations of child physical abuse and neglect paralleled Kempe and colleagues' medical and psychiatric description of child physical abuse and posited that maltreating parents were inherently pathological (e.g., Wolfe, 1999). By the 1970s, however, researchers and practitioners began to acknowledge the impact of multiple factors contributing to child maltreatment, rather than focusing solely on parental deficits (Wolfe, 1999).

Recently, several researchers have proposed multifaceted explanatory frameworks to account for the complexity of child physical abuse and neglect. Although these models vary in many respects, an assumption common across each framework is that child maltreatment reflects a multi-systemic and dynamic interplay of various factors (e.g., distal and proximal, transient and long-standing) at multiple levels (e.g., interpersonal, developmental, familial, and sociocultural; e.g., Belsky, 1993; Hansen et al., 1999; Kolko, 2002; Wekerle & Wolfe, 1996). Provided here is a brief overview of some of the most prominent etiological theories of child physical abuse and neglect, including (in alphabetical order) Belsky's (1980, 1993) ecological model, Cicchetti and Rizley's (1981) transactional model, Milner's (1993) social information processing model, and Wolfe's (1987, 1999) transitional model.

Belsky's (1980, 1993) Ecological Model

In response to increasing disparity among professionals about the etiology of child physical abuse and neglect as well as mounting empirical evidence revealing the complexity of these phenomena, Belsky (1980) proposed an integrative ecological framework of child maltreatment. This pioneering model describes four interrelated, mutually embedded categories that contribute to child maltreatment: (1) *ontogenic development*, (2) *the microsystem*, (3) *the exosystem*, and (4) *the macrosystem*. Within this framework, not only do child and parent biological and psychological characteristics impact the development of child maltreatment, but numerous sociocultural and environmental factors are also interwoven within these multiple ecologies. Specifically, ontogenic development reflects premorbid interpersonal and historical factors (e.g., personal history of childhood victimization) that impact parenting behavior.

The second layer, the microsystem, is defined as the "immediate context" (i.e., the family) in which the child experiences abuse or neglect, including the bidirectional influence of parent and child characteristics and other relationships (such as marriage) that may directly or indirectly impact parent-child interactions (Belsky, 1980, p. 321). In contrast, the exo- and macrosystemic levels reflect social or cultural forces that contribute to and maintain abuse or neglect. Specifically, the exosystem encompasses the effects of broader societal systems (e.g., employment) on parent and child functioning, and the macrosystem mirrors temporally driven, sociocultural ideologies (e.g., cultural views of corporal punishment), or a "larger cultural fabric," that inevitably shape functioning at all other levels (Belsky, 1980, p. 328). In his 1993 article describing the developmental-ecological etiology of child maltreatment, Belsky concluded that within these mutually embedded, multifaceted categories that may foster child maltreatment, "maltreatment seems to arise when stressors outweigh supports and risks are greater than protective factors" (p. 427).

Cicchetti and Rizley's Transactional Model; Cicchetti and Lynch's Ecological/Transactional Model

Whereas Belsky's (1980, 1993) ecological model describes the various interrelated ecologies in which child maltreatment occurs, Cicchetti and Rizley's (1981) transactional model highlights the multiple transactions that occur among categories of factors, labeled potentiating (or debilitating) and compensatory, which can be either transient or enduring in nature (see also Cicchetti, 1989; Cicchetti & Lynch, 1993; and Cicchetti & Toth, 2000). As outlined in these writings, the constellations that emerge are enduring potentiating factors (*vulnerability*), transient potentiating factors (*challengers*), enduring compensatory factors (*protective*), and transient compensatory factors (*buffers*). For example, a family may experience chronic unemployment, the stress of which serves as a potentiating factor, increasing the chances of child maltreatment. However, if a parent then finds a new and satisfying job, the risk likely becomes more benign, and the potential for abuse may be reduced. As such, increased stressors (particularly if they are chronic) coupled with decreased compensatory resources heighten the potential for abuse and neglect. Conversely, when significant compensatory factors (either protective or buffers) are present and overshadow potentiating circumstances, abuse and neglect potential may be drastically diminished.

Building on their original transactional model, Cicchetti and Lynch (1993) describe a more integrative ecological/transactional model of child maltreatment. This framework, used to describe outcomes and processes rather than etiology, is based heavily on Belsky's (1980) ecologi-

cal model and Cicchetti and Rizley's (1981) transactional model (Cicchetti & Lynch, 1993). These authors suggest that children and parents function across multiple ecological dimensions, with short- and long-term potentiating and compensatory factors nested within each of these ecologies. At any given time, the various ecological domains may interact catalytically, just as risk and protective factors may either ignite or buffer maltreatment at the various levels. Cicchetti and Toth (2000) maintain that, through examining compensatory resources in children and their environment, an ecological/transactional framework can aid in understanding children who exhibit resilient outcomes in spite of being maltreated.

Milner's (1993, 2000) Social Information Processing Model

In contrast to the aforementioned models, which deal largely with factors predictive of abusive parent-child interactions, Milner's social information processing model (1993, 2000) focuses more on the cognitive processes associated with abusive behaviors. A core concept in this model is that all parents have *global* and *specific* cognitions, or "preexisting (preprocessing) cognitive schema," related to how they perceive and interact with children (Milner, 1993, p. 277; 2000). Milner (1993, 2000) proposes a four-stage etiological model, with the first three stages reflecting cognitive processes of the parent and the final stage including the actions and cognitions of the parent. The first stage, *perceptions*, refers to distorted and maladaptive beliefs that abusive individuals often hold about children (e.g., "My child should always mind"). In Stage 2, *interpretations, evaluations, and expectations*, parents who are abusive tend to view even routine child misbehavior as malignant, thus heightening caregiver cognitive distortions and reinforcing negative beliefs about the child. As caregivers transition into the third stage, *information integration and response selection*, they will attend primarily to child behaviors that confirm their negative yet distorted cognitions. Thus, parents become blinded to discrepant information (e.g., positive behaviors in the child), and because they notice only negative child characteristics, the potential for the inhibition of aggression decreases. Milner (1993, 2000) notes that, at this stage, it is important to consider the response options that are accessible to the parent, which may be adversely impacted by significant skill deficits. In the fourth stage, *response implementation and monitoring*, abusive parents, for a variety of reasons (e.g., increased distress, diminished affect), are highly ineffective and inflexible in how they respond to their child, thus potentially leading to deleterious consequences and a more perpetual abuse cycle. Finally, Milner (1993, 2000) suggests that

at each stage, adults' distortions and biases increase in the face of heightened distress.

Wolfe's (1987, 1999) Transitional Model

Whereas Milner's (1993) social information processing model highlights the specific cognitive patterns of maltreating care-givers, Wolfe's transitional model of child physical abuse describes the specific processes by which maltreating behavior develops and progresses within the family system (Wolfe, 1987, 1999). This model is based on two underlying assumptions: (1) the belief that maltreating behaviors typically develop in a graduated, step-wise manner, with relatively benign parent-child interactions becoming increasingly maladaptive; and (2) the notion that three specific adult psychological characteristics (anger, arousal, and coping reactions) are integral in determining whether abuse will occur (Wolfe, 1987, 1999). Wolfe (1987, 1999) describes three stages through which an increase in negative familial interactions progressively leads to the magnification of maladaptive and abusive parent-child interactions; notably, at each stage, various destabilizing and compensatory factors exist that may either intensify or buffer against maltreatment. The first stage, *reduced tolerance for stress and disinhibition of aggression*, reflects the ways in which parents learn (or fail to learn) how to cope with increasingly stressful situations and either allow or disallow aggression, particularly within the context of the parent-child interaction. In Stage 2, *poor management of acute crises and provocation*, Wolfe suggests that the parent has developed an ineffective coping repertoire and consequently feels a mounting loss of control. As a result, the parent may attempt to discipline a child more harshly or act impulsively, which in turn serves to undermine inhibitions against acts of maltreatment. In the final stage, called *chronic patterns of anger and abuse*, abusive or neglectful caregivers become increasingly exasperated and overwhelmed by unremitting strain, particularly in the context of the parent-child dyad. At this point, caregivers engage in progressively more punitive behavior with children and likely enter an enduring and ever-escalating cycle of distress, arousal, and maltreating behavior.

COURSE, COMPLICATIONS, AND PROGNOSIS

Theoretical Considerations: A Developmental Framework

Some victims of child physical abuse and neglect appear to be asymptomatic and report few maltreatment-related difficulties (e.g., Barnett et al., 1997; Stevenson, 1999). In many cases, however, child maltreatment adversely impacts nor-

mal ontogenic processes across the life span and can trigger diverse developmental trajectories for maltreated individuals (see reviews by Cicchetti & Toth, 2000; Wolfe, 1999). Two concepts from the developmental psychopathology literature help shed light on the complex pathways of child maltreatment: *multifinality*, or the notion that similar starting points can lead to a myriad of outcomes (Cicchetti, 1989; Wolfe, 1999), and *equifinality*, the notion that diverse starting points can lead to similar consequences (Cicchetti, 1989). For example, demonstrating the principle of multifinality, it is possible for a child who is neglected to exhibit deleterious maltreatment-related outcomes, such as impaired academic performance and increased withdrawal from peers, whereas another child may emerge unscathed despite exposure to a similar form of neglect. Equifinality may be demonstrated by a physically abused child and a nonabused child who both experience similar difficulties, such as heightened aggression toward peers and depressive symptomatology, despite discrepant abuse histories.

In light of these diverse pathways, the course and prognosis of child maltreatment cannot be understood by an examination of the maltreated individual at a single point in time or in one area of functioning but rather must be conceptualized within a developmental framework. In the course of development, children are presented with various tasks that they attempt to resolve or master (e.g., Cicchetti & Toth, 2000) and that “upon emergence, remain critical to the child’s continual adaptation” (Cicchetti, 1989, p. 385). Significant life stressors, such as child maltreatment, can impede the successful resolution and integration of these developmental tasks (Cicchetti & Toth, 2000). Consequently, maltreated children experience impairments in critical areas of development or at “stage-salient” tasks (Cicchetti & Toth, 2000, p. 95; Wolfe, 1999), including attachment, moral and social judgments, autonomy, self-control, and peer relationships (Cicchetti, 1989, 1990; Wolfe, 1999). In some cases, the manifestations of maltreatment may go unrecognized until impaired development is evidenced. For example, when the maltreated child enters school and is faced with academic challenges and peer socialization, he or she may begin to evidence abuse-related problems such as aggression, isolation, and poor academic performance. As Wolfe (1999) stated, “The developmental disruptions and impairments that accompany child abuse and neglect set in motion a series of events that increase the likelihood of adaptational failure and future behavioral and emotional problems” (p. 51).

Longitudinal Findings

With this developmental framework in mind, researchers have conducted longitudinal studies that focus on the short- and long-term developmental effects associated with victimiza-

tion. Several important findings have emerged from these studies, which include the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN; Runyan et al., 1998), the Lehigh Longitudinal Study (LLS; Herrenkohl, Herrenkohl, Egolf, & Wu, 1991), the Mother-Child Project (M-CP; Egeland, 1991), and Silverman and colleagues’ community-based longitudinal study (Silverman, Reinherz, & Giaconia, 1996).

In early childhood, maltreated youth have been shown to experience cold and rejecting interactions with their caregivers (Herrenkohl, Herrenkohl, Toedter, & Yanushefski, 1984) and to present with significant impairments, such as attachment disturbances and anger/noncompliance (physically abused children), as well as frustration and diminished self-esteem (neglected children; Egeland, 1991). Deleterious effects also are apparent during the preschool years, with maltreated children born to adolescent mothers exhibiting significantly more internalizing and externalizing difficulties than nonmaltreated children (Black et al., 2002). Specifically, physically abused children have been shown to exhibit hyperactivity, negativistic outlooks, and lower self-esteem (Egeland, 1991). As maltreated children enter preschool, they continue to show significantly more adverse behavioral and emotional outcomes than do nonmaltreated children (Johnson et al., 2002). For example, unpopularity and self-destructiveness are among the features that characterize physically abused children, and poor academic performance and isolation are associated with neglected individuals (Egeland, 1991).

Unfortunately, the effects of child maltreatment often persist into adolescence. Silverman et al. (1996) compared long-term sequelae in maltreated individuals when they were 15 and 21 years old. They found that, although physically abused females tended to be more negatively impacted than physically abused males, abuse in childhood was linked to impairments in functioning for both. Specifically, for abused males, they found more suicidal ideation at age 15 than for the control group; at age 21, maltreated men had higher rates of depression, antisocial behavior, post-traumatic stress symptoms, and drug abuse than did their nonabused counterparts. At age 15, females with a physical abuse history demonstrated more withdrawal, somatization, aggression, depression, anxiety, attentional deficits, and suicidal ideation than the nonabused control group; at 21, the physically abused women, compared to the nonabused control group, were more likely to exhibit depression, post-traumatic stress symptoms, antisocial behavior, suicidal ideation, and externalizing behavior.

Moderating and Mediating Factors

Although these research findings have illuminated the diverse developmental trajectories among child abuse victims,

no single or definitive picture remains of the maltreated individual or of the specific course or prognosis associated with abuse. Whereas abuse sets the stage for subsequent maladjustment, the presence of moderating and mediating factors can significantly impact the course and prognosis of abuse victims. Regarding moderators, Malinosky-Rummell and Hansen (1993) identified four interrelated categories of moderating variables that, depending on their presence or absence, may impact the course of development in various ways. The factors include maltreatment characteristics (e.g., co-occurrence of multiple forms of maltreatment), individual factors (e.g., developmental level of the child or adolescent), family factors (e.g., level of familial distress, presence of domestic violence), and environmental factors (e.g., presence of support systems, socio-economic status). Although many of these factors exacerbate the impact of maltreatment, others seem to serve a buffering role by explaining resilient outcomes in maltreated children. Herrenkohl et al. (1991) reported that positive parent-child interactions; maternal support, affection, and involvement; parent modeling of resilient outcomes; and higher intelligence scores in children may help protect the child from harmful abuse-related outcomes and contribute to child competency. In reference to mediators, researchers have found that low parental support in childhood mediates the link between child maltreatment and increased depression and diminished self-esteem in adult women (Wind & Silvern, 1994). Finally, treatment or intervention can serve as a buffer against the deleterious outcomes associated with child maltreatment (Stevenson, 1999). Specific forms of treatment will be discussed in a later section.

ASSESSMENT AND DIAGNOSIS

Areas of Assessment

Because physical abuse and neglect arise from a variety of circumstances and produce a range of potential symptoms, each child and family will portray a unique clinical picture (Kolko, 2002). Assessments must therefore include antecedent conditions as well as specific child and parent factors. Antecedent risk factors include parental skill deficits, anger management difficulties, substance abuse, unrealistic expectations of child behavior, inability to cope with stress, and the nature of the parent-child relationship. Child-related factors that increase the risk of maltreatment also serve as areas for assessment (e.g., behavior problems, temperament). However, an assessment of overall child functioning, particularly outcomes related to child physical abuse and neglect, is necessary to determine the needs of the child. These include, but are not limited to, medical/health status,

social and developmental functioning, behavior problems, academic needs, and emotional difficulties. Assessment should also focus on the larger context of maltreatment, including overall family functioning, social support, and environmental resources as well as the strengths of the family, including resources and compensatory skills. To provide an accurate conceptualization of the problem, assessment should also include the nature and extent of dysfunction as well as the frequency, severity, chronicity, and context of the abuse and neglect incidents (Hansen & MacMillan, 1990). Specific targets for incidents of neglect may also include the quality of stimulation afforded the child, hygiene, safety, medical health, and quality of affection demonstrated (Hansen & MacMillan, 1990).

Assessment Techniques

Though it is not possible to provide an extensive review of assessment measures here (see Feindler, Rathus, & Silver, 2002, for such a review), we will present a brief description of some of the more popular and well-validated measurement approaches, including interviewing, self-report, observational, and self-monitoring techniques. Clinical interviewing is crucial in ascertaining the antecedents and consequences of abuse as well as the context of incidents of maltreatment. The Parent Interview and Assessment Guide (Wolfe, 1988; Wolfe & McEachran, 1997) is a useful tool that addresses the identification of parent responses to child behavior problems and demands. In addition, Ammerman, Hersen, and Van Hasselt (1988) developed the Child Abuse and Neglect Interview Schedule (CANIS), a semistructured interview that assesses the presence of behaviors of abuse and neglect as well as factors that relate to child maltreatment. With regard to the assessment of neglect, the Childhood Level of Living Scale (CLLS; Hally, Polansky, & Polansky, 1980, as cited in Hansen & MacMillan, 1990) is a measure of parenting skill deficits that may be useful in minimizing error associated with the detection of neglect (Hansen & MacMillan, 1990).

Self-report is another assessment technique that can be used to identify parent and child risk factors that relate to maltreatment as well as provide targets for intervention and monitoring treatment progress. A useful measure to assess the risk of maltreatment is the Child Abuse Potential Inventory (CAP Inventory; Milner, 1986), which provides an abuse potential scale as well as three validity scales. Parental psychological functioning is another important area of assessment. The Minnesota Multiphasic Personality Inventory—2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) and the Symptom-Checklist-90-Revised (SCL-90-R; Derogatis, 1983) are commonly used self-report measures of psychological psychopathol-

ogy and distress. Measures of parental anger (Parental Anger Inventory; DeRoma & Hansen, 1994; MacMillan, Olson, & Hansen, 1988), parenting-related stress (Parenting Stress Index; Abidin, 1986), marital violence (Revised Conflict Tactics Scales; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), and child behaviors (Child Behavior Checklist; Achenbach, 1991) are also important areas to assess, in that they constitute risk factors for child maltreatment. Further, to assess neglect from the child's perspective, Kaufman Kantor, Straus, Mebert, and Brown (2001) developed the Multidimensional Neglect Scale—Child Report (MNS-CR) that includes the emotional, cognitive, supervisory, and physical components of neglect.

Due to the inherent potential for bias and distortions related to self-report measures, observations are an important technique to incorporate into the assessment of child abuse and neglect. Observations can provide information regarding the quality of the parent-child relationship, evidence of parenting skills and knowledge, and examples of child behavior problems. Such techniques may involve live or videotaped observations of unstructured parent-child interactions in the home or clinic settings, such as the Child's Game procedure (Forehand & McMahan, 1981). In this task, the child directs play activity, after which the parent instructs the child to clean up the toys. Coding systems may then be used to quantify the parent-child relationship. Examples of coding systems include the Behavioral Coding System (Forehand & McMahan, 1981) and the more complex Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg & Robinson, 1981), which assesses both positive and negative behaviors of the child and parent. Observations may also involve the use of adult actors to assess the ability of the parent to apply behavior management techniques in commonly encountered problem situations, such as through the Home Simulation Assessment (HSA; MacMillan, Olson, & Hansen, 1991).

Self-monitoring techniques may also be useful to assess the occurrence of specific behaviors (e.g., child behavior problems) and allow parents to record the antecedents and consequences of such behaviors in order to provide a more thorough functional analysis of abuse and neglect incidents. Self-monitoring has been shown to be particularly useful in assessing parent responses to situations that cause arousal, such as anger, by providing a description of triggers and responses to the arousal (Hansen, Warner-Rogers, & Hecht, 1998).

Finally, assessment should include information gathered from sources outside of the family. In the case of neglect, for example, a child's teacher may be best able to provide information regarding the child's hygiene or attire (Hansen et al., 1998). Further, professionals from a variety of settings, including health care providers and social services,

may have had contact with maltreating families. Information from such professionals may be useful in both initial assessment as well as monitoring treatment progress (Warner-Rogers et al., 1999).

IMPACT ON ENVIRONMENT

The consequences of child abuse and neglect can be far-reaching. In addition to the developmental consequences noted previously, various domains of functioning may be impacted by physical abuse and neglect. These include families, school functioning, and peer interactions.

Family

It is important to remember that child abuse and neglect emanate from family environments that are characterized by a range of other problems (Hecht & Hansen, 2001). Economic impoverishment, other forms of interpersonal violence, parental psychopathology and substance abuse, and negative parent-child interactions are common in families in which abuse and neglect occur (Appel & Holden, 1998; Erickson & Egeland, 2002; Fantuzzo, 1990; Kelleher, Chaffin, Hollenberg, & Fischer, 1994; Whipple & Webster-Stratton, 1991). Much has been written about the general constellation of risk factors associated with maltreatment (Belsky, 1980, 1993). Most authors agree that these contextual factors interact in complex, mutually influential ways, such that they each can feed into or be exacerbated by the occurrence of abuse or neglect (Belsky, 1980; Cicchetti & Rizley, 1981; Hecht & Hansen, 2001).

Aside from the role of maltreatment within generally troubled family environments, the disclosure of abuse or neglect to child protective authorities may itself trigger multiple changes within the family. Local child protective service (CPS) agencies are often notified about abuse by physicians, psychologists, social workers, teachers, and other professionals who are bound by law to hotline suspected maltreatment. Once reports are received, CPS conducts an investigation to determine whether the alleged maltreatment in fact occurred. If maltreatment is verified, some (yet not all) families receive remediating services (DePanfilis & Zuravin, 2001). These services may include parent training, anger management, substance abuse treatment, or other interventions aimed at ameliorating the conditions leading to maltreatment. During this period, children may be removed from the home and placed in foster care to protect them from the risk of continuing abuse. Ongoing risk assessments determine whether family reunification will be possible. Nationally, most children in foster care are eventually either reunited with their families of origin (40 percent) or are adopted by other care-givers (16 percent; Chi-

pungu & Bent-Goodley, 2004). Regardless of outcome, however, it is clear that abuse and neglect, particularly that which comes to the attention of authorities, has a profound impact on family functioning, including the possibility of altering family structure.

School

Early school performance can set the stage for later success or failure in both higher education and employment pursuits (Sylva, 1994). It is easy to envision how child maltreatment could disrupt school performance through various means such as inducing developmental, cognitive, and language delays; low IQ; depression; and diminished self-efficacy. As Shonk and Cicchetti (2001) outlined, empirical studies of these issues can be grouped into those examining direct associations between maltreatment and subsequent academic functioning, and those exploring possible mediating factors in that relationship. Regarding the former, studies have consistently shown that maltreated children experience more school-adjustment problems than do nonmaltreated children. For example, physical abuse has been linked to outcomes including lower test scores and grades, absenteeism, and lower retention in comparison to other schoolchildren and children from disadvantaged (but not abusive) households (Letter & Johnsen, 1994). More recent work exploring mechanisms that may explain this association has revealed some important mediational factors. For example, Eckenrode, Rowe, Laird, and Brathwaite (1995) found that links between maltreatment and school performance were mediated by family moves and school transfers. Shonk and Cicchetti (2001) reported that level of academic engagement partially mediated linkages between maltreatment and academic maladjustment.

Several factors point to child neglect, in particular, as a source of impaired school performance. Neglectful households may be lacking in various activities that promote cognitive development, including deficits in parent-child verbal interaction, less reading to children, and overall lower parental involvement in children's academic pursuits (e.g., help with homework). Indeed, comparisons of abused and neglected children indicate that neglect may be more harmful than other forms of abuse to a wider range of school-related outcomes (Eckenrode, Laird, & Doris, 1993; Erickson, Egeland, & Pianta, 1989). Moreover, neglect alone may be just as detrimental to grade performance as combined neglect and physical abuse (Kendall-Tackett & Eckenrode, 1996). Problems adapting to the broader school environment have also been linked to neglect. For example, Erickson and colleagues (1989) found that youths who had been neglected were seen by teachers as anxious; inat-

tentive; unable to understand their work; lacking in initiative; and heavily dependent on teachers for help, approval, and encouragement.

Peer Interactions

Early physical abuse has negative implications for subsequent peer interactions as well. This statement is supported by findings that children who are physically maltreated tend to be unpopular and rejected by peers and have a lower social standing among classmates (Bolger, Patterson, & Kupersmidt, 1998; Haskett & Kistner, 1991; Salzinger, Feldman, Hammer, & Rosario, 1993). Some of the best documentation of these difficulties comes from a 5-year longitudinal study of children with verified cases of physical abuse (Dodge, Pettit, & Bates, 1994). Reports from multiple informants showed abused youth to be less well liked by other children and more socially withdrawn than their nonabused peers. To make matters worse, these social problems tended to increase over time (Dodge et al., 1994). Physical abuse has also been linked to subsequent bullying of peers, a relationship that was mediated by difficulties in emotional regulation (Shields & Cicchetti, 2001). In a study of close friendships, direct observation of play and conversation with best friends has shown that the relationships of maltreated children are less positive and involved more conflict and disagreement and less overall intimacy than do the friendships of nonabused children (Parker & Herrera, 1996).

Aggression toward others may account for some of the peer problems observed in maltreated children. A consistent finding in the literature is that abused children display more verbal and physical aggression toward peers than do non-maltreated youth (e.g., Herrenkohl, Egolf, & Herrenkohl, 1997; Shields & Cicchetti, 1998; Weiss, Dodge, Bates, & Pettit, 1992). Maltreatment history has also been linked to the increased use of verbal and physical violence in adolescent dating relationships, part of what the authors described as a "maladaptive interpersonal trajectory of maltreated children" (Wolfe, Wekerle, Reitzel-Jaffe, & Lefebvre, 1998, p. 61). In a recent study, Bolger and Patterson (2001) found that this heightened physical aggression plays an important contributory role in the rejection that maltreated youth experience by mediating associations between maltreatment and subsequent peer relations. This was especially true for children whose abuse was chronic.

Like physical abuse, neglect has been linked to poor social interactions. Preschool children who have been neglected may show increased apprehension when interacting with peers, avoidance in social situations, and greater social isolation in comparison to nonmaltreated children (Camras & Rappaport, 1993; Erickson et al., 1989). These trends

toward withdrawal and avoidance in social interactions appear to remain into the school-age years (Erickson et al., 1989; Kaufman & Cicchetti, 1989).

IMPLICATIONS FOR FUTURE PERSONALITY DEVELOPMENT

Child maltreatment has been linked to a range of subsequent (primarily pathological) personality characteristics. The majority of data making this connection come from retrospective investigations showing that psychiatric patients report unusually high rates of child maltreatment (e.g., Arbel & Stravynski, 1991; Norden et al., 1995). A history of physical abuse, for example, has been found to predict overall personality symptomatology in psychiatric patients (Carter, Joyce, Mulder, & Luty, 2001), while physical abuse and emotional and physical neglect have been linked retrospectively to increased neuroticism in abstinent substance-dependent patients (Roy, 2002). One exception to this general pattern of findings is a study by Gibb, Wheeler, Alloy, and Abrahamson (2001), who failed to find a unique association between child physical abuse and personality dysfunction. However, in addition to the usual limitations of retrospective self-reporting, this study was conducted with college freshmen and assessed only the frequency (not the severity) of abusive acts.

A few investigations have used prospective designs to examine connections between child maltreatment and later personality characteristics. One such study used New York State CPS records of verified abuse and found that those individuals with a history of abuse or neglect were four times more likely to experience personality disorders during early adulthood (Johnson, Cohen, Brown, Smailes, & Bernstein, 1999). Although physical abuse was predictive of a range of personality problems, including antisocial, borderline, dependent, depressive, passive-aggressive, and schizoid symptoms, associations with antisocial and depressive symptoms were especially robust. Documented neglect was most strongly related to antisocial, avoidant, borderline, narcissistic, and passive-aggressive personality disorder symptoms. In a second study using the same longitudinal sample, these authors examined associations between particular subtypes of neglect and the development of personality pathology (Johnson, Smailes, Cohen, Brown, & Bernstein, 2000). Emotional, physical, and supervisory neglect were all related to an increased risk of personality disorders as well as elevations in overall personality symptomatology. Each of these neglect subtypes was also associated with different types of personality disorder symptoms. The authors speculated that attachment processes and lev-

els of social support may play a role in these relationships.

Borderline personality disorder (BPD) has been commonly studied as a correlate of child maltreatment (Golier et al., 2003). This connection seems logical given that the long-term problems associated with abuse are also common to the presentation of BPD (e.g., lack of trust, dissociation, emotional instability; Trull, 2001). Indeed, several investigations have found that patients with BPD have high rates of child maltreatment, including both physical and sexual abuse (e.g., Herman, Perry, & van der Kolk, 1989). Of course, a large proportion of individuals with BPD do not have a history of child abuse, which points to the conclusion that BPD results from multiple etiological factors. In exploring multiple etiological correlates of BPD, Trull (2001) tested a multivariate structural model that included a combined physical and sexual abuse variable as well as parental psychopathology and personality traits of disinhibition and negative affectivity. Results showed that abuse history maintained unique associations with BPD, even when controlling for the other etiological factors. This study is unique in its attempt to simultaneously consider multiple domains that may contribute to BPD. Unfortunately, with few exceptions (e.g., Weaver & Clum, 1993) studies have not attempted to isolate or disentangle the impact of individual forms of abuse on later BPD. It will be important for future work to separate the potential impact of physical abuse from co-occurring sexual abuse, which has itself been linked to BPD.

A second area of personality functioning that has been studied extensively in relation to physical abuse is antisocial behavior patterns. This association could be expected given the previously noted aggressiveness and behavior problems in childhood victims of abuse (e.g., Weiss et al., 1992). Widom and colleagues (e.g., Widom, 1989; Widom & Maxfield, 1996) followed more than 900 abused and neglected children, and a matched cohort of nonmaltreated youth, from childhood through early adulthood. These authors found that women with histories of physical abuse or neglect were more likely than others to be arrested for a violent act (7 percent vs. 4 percent). Interestingly, differences were much smaller between abused and nonabused males, who tended to have higher arrest rates overall (26 percent vs. 22 percent). These criminal characteristics may be part of a larger antisocial personality pattern common among adults who experienced abuse and neglect. Using the same prospective sample, Luntz and Widom (1994) compared the personality styles of young adults with and without abuse histories. These researchers identified clear linkages between childhood abuse and lifetime antisocial symptomatology as well as a diagnosis of antisocial personality disorder. Differences in antisocial

personality diagnoses between abused and nonabused participants were greater for men than for women. Other investigations using retrospective designs have also confirmed links between early physical abuse and long-term antisocial personality tendencies (e.g., Bernstein, Stein, & Handelsman, 1998; Lysaker, Wickett, Lancaster, & Davis, 2004; Shearer, Peters, Quaytman, & Ogden, 1990).

A major question facing researchers is whether child maltreatment plays a truly causal role in the development of more prevalent personality problems, such as antisocial personality disorder. On one side of this issue are consistent findings of elevated personality symptoms among adult abuse survivors, which suggest at least the possibility of a causal link. On the other hand, the correlational designs of most of these studies do not permit conclusions about causality. It is possible, therefore, that certain personality features of maltreatment victims, such as antisocial tendencies, result more from genetic factors than from the environmental impact of abuse. According to this notion, an antisocial genotype may be transmitted from maltreating parents to their children and subsequently be expressed phenotypically through antisocial behavior patterns. This possibility is supported by findings that personality traits are largely heritable (Eysenck, 1991; Livesley, Jang, Jackson, & Vernon, 1995; Plomin, DeFries, McClearn, & McGuffin, 2001) and that antisocial tendencies, specifically, have at least a moderate heritable component (Rhea & Waldman, 2002). Some illuminating data addressing the genetic versus environmental contributions to antisocial behaviors of maltreated children come from a recent longitudinal study that followed a large sample of twin pairs from the United Kingdom (Jaffe, Caspi, Moffitt, & Taylor, 2004). By controlling for parental antisocial behaviors and a variety of other factors in the twin sample, these researchers found clear evidence of an environmental impact of maltreatment on later antisocial tendencies. Although their conclusions were limited to childhood antisocial acts, to the extent that there is continuity from childhood conduct problems to adult antisocial behaviors, these findings point toward a causal role for physical abuse in the development of antisocial traits (Jaffe et al., 2004).

TREATMENT IMPLICATIONS

The short- and long-term sequelae of child abuse support the need for intervention, through both preventive measures as well as immediate and follow-up interventions. Historically, treatment of child physical abuse focused primarily on interventions directed at parents, although current methods acknowledge the importance of targeting the

broader systemic contexts in which child physical abuse occurs (Barnett et al., 1997). Interventions for child physical abuse include individual (both parent and child) therapy, parent training, family treatment, and multisystemic approaches. With regard to child neglect, interventions primarily focus on parents, parent behaviors, or both and may involve multiple providers working with a single family over a long period. The assessment of child physical abuse and neglect, as well as evaluation of risk, can aid in determining the type of structural interventions (e.g., separation, supervision) that may be called for as well as the type of clinical intervention that may be necessary for any given family (Saunders, Berliner, & Hanson, 2004). A brief overview of some of the major treatment approaches for child physical abuse and neglect will follow.

Child-Focused Interventions

In general, child-focused treatments are designed to assist children in coping with the emotional and behavioral symptoms stemming from child physical abuse and neglect. The majority of interventions for children involve day treatment programs, individual therapy, and play sessions (Barnett et al., 1997). Though there is empirical support for the effectiveness of child-focused interventions for maltreated children (e.g., Oates & Bross, 1995; Wolfe & Wekerle, 1993), most studies in this area involve preschool or young children and do not differentiate between types of abuse. Thus, continued research is necessary to determine the effectiveness of child-focused interventions. Nonetheless, the National Crime Victims Research and Treatment Center has prepared a guide to the treatment of child physical and sexual abuse that includes empirically supported interventions: *Child Physical and Sexual Abuse: Guidelines/or Treatment* (revised report, April 26, 2004; Saunders et al., 2004).

One child-focused approach noted in *Guidelines* is individual cognitive-behavioral therapy (CBT), which is designed to help children alter cognitions related to abuse or violence, teach coping skills to reduce the emotional symptoms related to abuse, and increase social competence (Bonner, 2004). An example of a CBT approach is the protocol by Kolko and Swenson (2002), which has received empirical support and consists of child components addressing views of family violence, coping strategies, and interpersonal skills and involves the use of role-playing, feedback, and homework exercises. In addition, this treatment has a parent-focused component that involves identifying cognitions related to violence, cognitive and anger control coping strategies, and child behavior management principles (e.g., positive attention, reinforcement, time-out). Fantuzzo and colleagues' Resilient Peer Training Intervention (RPT;

Fantuzzo, Weiss, & Coolahan, 1998) is a classroom-based intervention designed for preschool-aged maltreated children. RPT uses peers, teachers, and parent volunteers to increase social competency and has been shown to be effective with socially isolated, low-income preschool children who have been victims of maltreatment (Fantuzzo, Coolahan, & Weiss, 1997).

Parent Training Interventions

Child physical abuse frequently occurs in the context of increasingly negative parent-child interactions (Chaffin et al., 2004). More specifically, parents who are physically abusive often view their children as defiant and unresponsive to discipline techniques not involving violence (Chaffin et al., 2004). As a result, physically abusive parents may believe that the only way to manage their children's behaviors is through physical tactics. Parent training interventions have recently been used with maltreating caregivers in an effort to interrupt this coercive pattern. In general, these interventions target conduct-disordered children and involve teaching parents skills to increase child compliance, decrease disruptive behaviors, and increase positive parent-child interactions (Brestan & Payne, 2004).

One model of parent training used with physically abusive parents is Parent Child Interaction Therapy (PCIT; Hembree-Kigin & McNeil, 1995), which was recently categorized as an empirically supported treatment (Chambless & Ollendick, 2000). When applied to physical abuse, PCIT is designed to change the dysfunctional parent-child relationship by disrupting the escalating degrees of violence that characterize these interactions. This involves improving the quality of the parent-child relationship and teaching nonviolent behavior-management strategies (Chaffin et al., 2004). PCIT has been shown to be effective in reducing child behavior problems and increasing positive parent-child interactions (Borrego, Urquiza, Rasmussen, & Zebell, 1999), as well as reducing the incidence of future child abuse reports (Chaffin et al., 2004). Further, PCIT has been demonstrated to be effective across a variety of populations (e.g., Hembree-Kigin & McNeil, 1995), and treatment effects have been shown to demonstrate some generalization across time (Eyberg et al., 2001) and settings (McNeil, Eyberg, Eisenstadt, Newcomb, & Funderburk, 1991) and to untreated siblings (Brestan, Eyberg, Boggs, & Algina, 1997). Other parent training interventions that have been used with physically abusive families include Patterson and Gullion's (1968) *Living with Children*, Forehand's (1981) Social Learning Parent Training (as detailed in Forehand & McMahan, 1981), and Barkley's (1997) *Defiant Children*.

Family-Focused Interventions

An ecological model of child physical abuse views abuse as the product not only of the immediate family context, but also of the relationship of the family with the surrounding environmental influences (e.g., Belsky, 1993). Thus, family-focused interventions are multifaceted and target the parent-child relationship and various child (e.g., emotional disruption), parent (e.g., anger management), and family (e.g., boundaries) issues (Ralston & Sosnowski, 2004). Overall, family-focused interventions for child physical abuse have received less empirical evaluation than other treatment approaches (see Wolfe & Wekerle, 1993), although at least one study has indicated that family therapy is comparable to parent training in demonstrating reductions in perceived stress and severity of overall problems (Brunk, Henggeler, & Whelan, 1987).

The Parent-Child Education Program (Wolfe, 1991) is a family-focused intervention designed to reduce parental use of power assertion as discipline and to establish positive parent-child interactions to prevent the use of verbal and physical abuse. Stemming from attachment and social learning theories and using principles of cognitive and behavioral learning, this treatment focuses on effective child-rearing practices, problem solving to increase child compliance, skills training to strengthen the parent-child relationship, reducing child noncompliance, and helping parents cope with stress (Wolfe, 2004). An additional family intervention is Physical Abuse-Informed Family Therapy (Kolko, 1996), which enlists the participation of all family members to enhance cooperation and motivation through developing an understanding of coercive behavior, teaching communication skills, and problem solving. This approach has been shown to be superior to traditional community services in improving child outcomes following abuse and reducing violence (Kolko, 1996). Finally, intensive family preservation programs provide interventions such as crisis intervention therapy and behavior modification (Haapala & Kinney, 1988) and are aimed at preventing the out-of-home placement of abused and neglected children (Barnett et al., 1997). Research has suggested that such interventions can be successful in preventing children from being placed out-of-home (e.g., Bath & Haapala, 1993).

Multisystemic and Societal Approaches

Multisystemic and societal approaches adopt the perspective that behaviors are maintained by any number of factors within the multiple systems surrounding the behavior (e.g., family, school, peer, society) and that such factors have reciprocal influence (Bronfenbrenner, 1979). Hence, these interventions target variables within and between the sys-

tems that serve to maintain abuse and neglect, thereby serving to reduce the overall stress level of abusive parents such that therapeutic concerns may be addressed (Barnett et al., 1997). One such intervention is multisystemic therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) for maltreated children and their families. Originally intended to address youth antisocial behavior, MST has recently been applied to abusive and neglectful families and, in one randomized trial, was found to be more effective than parent training in improving parent-child interactions related to maltreatment (Brunk et al., 1987). Other approaches that may be classified as multisystemic include home visitation programs, such as Project SafeCare (Gershater-Molko, Lutzker, & Wesch, 2003), which targets families at risk for abuse or neglect and has demonstrated efficacy in promoting positive parent-child interactions and improving home safety and child health care. Prenatal and early childhood home nurse visitation programs have also been shown to improve the quality of infant caregiving, reduce rates of dysfunctional care (including reducing rates of maltreatment and medical encounters related to injury), and improve women's own health care (e.g., Eckenrode et al., 2001; Korfmacher, Kitzman, & Olds, 1998; Olds et al., 1998). Further, home visitation programs provide both support and education for parents (Roberts, Wasik, Casto, & Ramey, 1991, as cited in Barnett et al., 1997) and are recommended in the prevention of child physical abuse (Barnett et al., 1997).

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