CHAPTER 15

The Developmental Psychopathology of Personality Disorders

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It is widely recognized among clinicians, researchers, and theorists that interpersonal experiences during childhood, adolescence, and to a lesser extent during adulthood play an important role in personality development. Because every aspect of human existence is profoundly affected by social interaction, and because our lives are defined and structured by our relationships with other people, personality itself is widely viewed as being determined or shaped by these relationships. Personality development is generally understood to take place predominantly during childhood and adolescence, and personality disorders (PDs) accordingly tend to become evident by adolescence or early adulthood (American Psychiatric Association [APA], 1968, 1980, 1987, 2000). Epidemiological studies have indicated that personality disorders are fairly prevalent. To a substantial degree, maladaptive personality traits and PDs are likely to result, in part, from disturbances in interpersonal relationships that take place during the formative years of childhood and adolescence.

PD prevalence estimates, based on the diagnostic criteria from the *Diagnostic and Statistical Manual of Mental Disorders,* 4th edition, text revision (*DSM-IV-TR*; APA, 2000), have ranged from approximately 7% to 15% of the adult population and from 6% to 17% of the adolescent population, depending on the diagnostic procedure and the range of PDs assessed (Grant et al., 2004; Johnson, Bromley, Bornstein, & Sneed, in press; Samuels et al., 2002; Torgersen, Kringlen, & Cramer, 2001). There are 10 official *DSM-IV* PDs (antisocial, avoidant, borderline, dependent, histrionic, narcissistic, paranoid, obsessive-compulsive, schizoid, and schizotypal), and 2 additional PD diagnostic criteria sets included for further study (depressive PD and passive-aggressive or negativistic PD). Each of these PDs has been found in most studies to affect 0.5% to 3% of the adults in the general population,

although prevalence estimates have varied significantly from study to study.

Numerous studies have shown that adolescents and adults with PDs are more likely than those without PDs to report a history of childhood adversities, including abuse, neglect, maladaptive parenting, parental loss, and other traumatic life events (e.g., Brodsky, Cloitre, & Dulit, 1995; Goldman, D'Angelo, & DeMaso, 1992; Herman, Perry, & van der Kolk, 1989; Johnson, Quigley, & Sherman, 1997; Klonsky, Oltmanns, Turkheimer, & Fiedler, 2000; Ludolph, Westen, & Misle, 1990; Norden, D. N. Klein, Donaldson, Pepper, & L. M. Klein, 1995; Raczek, 1992; Shearer, Peters, Quaytman, & Ogden, 1990; Weaver & Clum, 1993; Westen, Ludolph, Block, Wixom, & Wiss, 1990). However, although retrospective studies have provided substantial evidence in support of this hypothesis, such findings are often not conclusive given the possibility of biased recall and inaccurate reporting of childhood adversities. Prospective longitudinal findings have only recently become available, and it has not been possible to rule out the alternative hypotheses that the association of childhood adversities with maladaptive personality traits is attributable to recall bias or to preexisting childhood traits that may contribute to the onset of some types of childhood adversities (Maughan & Rutter, 1997; Paris, 1997).

Although there have been findings supporting the validity of retrospective reports of childhood adversities (e.g., Bifulco, Brown, & Lillie, 1997; Robins et al., 1985), and although retrospective studies have promoted the formulation of developmental hypotheses, it is nevertheless problematic to make strong causal inferences about the impact of adverse childhood experiences on the development of personality disorders based on retrospective data. Retrospective studies cannot rule out the alternative hypotheses that the association of childhood adversities with maladaptive personality traits is attributable to recall bias or to preexisting childhood traits that may contribute to the onset of some types of childhood adversities (Maughan & Rutter, 1997; Paris, 1997). Both of these alternative hypotheses have presented significant challenges to researchers in this field.

CHILDHOOD ADVERSITY AND A VULNERABILITY-STRESS APPROACH TO PDs

The Need for a Vulnerability-Stress or Interactionist Model of Personality Development

A number of studies have supported the hypotheses that genetic and prenatal factors may play an important role in the development of behavioral and emotional problems that may become evident during childhood (Livesley, Jang, Jackson, & Vernon, 1993; Neugebauer, Hoek, & Susser, 1999; Thomas & Chess, 1984). In addition, research has indicated that maladaptive childhood traits may have an adverse influence on parenting behavior, potentially increasing risk for childhood maltreatment (Kendler, 1996). Such findings have contributed to skepticism in some quarters about the hypothesis that childhood adversities play an important role in the development of maladaptive personality traits and PDs. Other clinicians and researchers who have noted the significance of these challenging findings have recognized the importance of developing an interactionist or vulnerability-stress theory of PD development (e.g., Caspi et al., 2002; Foley et al., 2004).

The field of PD research is currently in the earliest stages of developing an empirically based interactionist or vulnerability-stress model of personality development. Research has provided clear indications that both stressful or traumatic life events and a range of vulnerability factors, ranging from biological to interpersonal diatheses, are likely to

contribute to the development of abnormal personality traits (Caspi et al., 2002; Foley et al., 2004). However, researchers and theorists have not yet begun to develop a truly comprehensive and integrated model that incorporates both vulnerability and stress factors (Andersen, 2003). It is important to recognize that, because research on PDs as operationally defined in the *DSM-III* (1980) and beyond is still in its infancy, it is likely that many years or decades of research will be required before a fully adequate model of PD development can be developed.

It is important to note that early life experiences, such as childhood adversities, may be conceptualized as "vulnerability" factors or as "stress" factors (see Johnson et al., 2002).[1] For example, early childhood attachment failure, which may be partially attributable to problematic experiences with key attachment figures, may contribute to an enduring attachment style that interferes with healthy socialization (Brennan & Shaver, 1998; Fossati et al., 2003; see Davila, Ramsay, Stroud, & Steinberg, Chapter 9 of this volume). Thus, enduring attachment difficulties, which are generally viewed as constituting a vulnerability factor for subsequent disorder, may result, in part, from problematic or inadequate parent-child interaction (Brennan & Shaver; Fossati et al.). It is not yet possible to distinguish reliably between vulnerability factors that may have a biological basis (e.g., genetic predisposition toward anxiety and anxious attachment style) and vulnerability factors that may result from highly problematic or abusive interactions between parent and child beginning in early infancy.

Research, including genetic epidemiology, has confirmed that childhood maltreatment is associated with elevated risk for a wide range of psychiatric symptoms, including maladaptive personality traits (see Kendler et al., 2000). However, until better markers are developed for genetic factors, for other biological vulnerability factors, and for vulnerability factors that stem from problematic childhood experiences, it will not be possible to determine with confidence how vulnerability factors and subsequent life experiences combine to bring about the development of maladaptive personality traits. Thus, one of the goals of current and ongoing research is the development of improved and more reliable markers of vulnerability. As more specific indicators of vulnerability are developed, new lines of research will become possible, and this research will hold the potential of promoting the development of a truly comprehensive and systematic theory of PD development.

It is important to recognize that a sizable body of research has confirmed that there are important individual differences in temperament during early childhood, and that these are likely to be due at least in part to a biological (e.g., genetic, prenatal) predisposition (Thomas & Chess, 1984). The extent to which temperamental characteristics predict, influence, or determine subsequent personality development is a topic of ongoing investigation. Although several studies have shown that early childhood temperament or personality predicts subsequent functioning during adolescence or adulthood (e.g., Bernstein, Cohen, Skodol, Bezirganian, & Brook, 1996; Caspi, Moffitt, Newman, & Silva, 1996), it has not yet been possible to disentangle the biological and experiential determinants of early childhood temperament.

Temperamental characteristics (which are themselves likely to be influenced by both biological and experiential factors) are likely to interact in complex ways with other determinants of behavior and personality development. To some extent, enduring and temperament-related diatheses present in early childhood may elicit behaviors from parents (see Kendler, 1996) and others that may help "crystallize" these traits, thereby increasing the likelihood of a similar pattern of behavior that may endure into adolescence

and adulthood. In addition, temperamental vulnerability factors may interact with stressful or traumatic life events, including childhood maltreatment, resulting in the development of PD or a maladaptive attachment or personality style. For example, it may be hypothesized that young children who have a relatively anxious, shy, or inhibited temperament may be especially likely to develop a Cluster C (i.e., avoidant, dependent, obsessive-compulsive) PD if they are emotionally neglected during their formative years. Young children with an outgoing, gregarious temperament may be most likely to develop a Cluster B PD (i.e., antisocial, borderline, narcissistic, and histrionic PDs) if physically, sexually, or emotionally abused. Research has clearly suggested that different types of childhood maltreatment and other childhood adversities may contribute to increased risk for the development of different types of PD traits (see Tables 1 through 12). However, it is important to recognize that children adapt and respond in different ways to adversities, depending on their strengths (e.g., coping skills), vulnerabilities, and interpersonal resources (e.g., social support, availability of health care).

It is also important to note that PDs and other chronic mental disorders (e.g., dysthymic disorder) may themselves be conceptualized as vulnerability factors. For example, PD may be conceptualized as a complex of interpersonal deficits, stemming in large measure from problematic interpersonal experiences during childhood, and increasing risk for subsequent mental health problems (Johnson et al., 1997). Although this chapter is principally concerned with risk factors that may contribute to the development of PD, there is abundant evidence indicating that individuals with PD are at substantially elevated long-term risk for adverse mental health outcomes (Daley et al., 1999; Johnson et al., 1996; Johnson, Cohen, Brown, Smailes, & Bernstein, 1999; Kwon et al., 2000). Further, PDs and PD traits have been found to be particularly associated with risk for Axis I disorders in the context of stressful life events (Johnson & Bornstein, 1991).

Recent Evidence Permitting Stronger Inferences Regarding Childhood Adversities and PDs

In recent years, investigations utilizing a number of different research paradigms have provided new and compelling evidence in support of the hypothesis that childhood experiences have an important influence on personality development. Research has indicated that maladaptive personality traits are likely to be caused by the interaction of genetic and environmental risk factors (Caspi et al., 2002; Foley et al., 2004). In addition, maternal behavior, health, and environmental characteristics affecting prenatal development have been found to have a lasting impact on offspring traits and mental health (Neugebauer et al., 1999; Ward, 1991). Epidemiological studies and co-twin analyses that have controlled for genetic factors have indicated that childhood abuse is likely to be causally related to an increased risk for a broad spectrum of psychiatric symptoms (Kendler et al., 2000). Neurobiological studies have provided considerable evidence suggesting that childhood maltreatment may cause persistent deficits in brain activity, and that these deficits are associated with the development of a wide range of psychiatric symptoms, including maladaptive personality traits (Teicher et al., 2003).[2] Prospective longitudinal studies and investigations that obtained evidence of childhood maltreatment from official records have supported the hypothesis that childhood abuse and neglect may contribute to increased risk for the development of PDs (e.g., Drake et al., 1988; Guzder, Paris, & Zelkowitz, 1996; Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Kasen, Smailes, & Brook,

2001; Johnson, Cohen, Smailes, et al., 2000; Johnson, Cohen, Smailes, et al., 2001; Luntz & Widom, 1994). The findings of these studies, and of the studies that have provided relevant retrospective data, are described in greater detail below.

The results of these prospective longitudinal studies and studies that obtained evidence of childhood maltreatment from archival records have provided stronger evidence of a possible causal link between childhood maltreatment and risk for personality disorders. These studies have indicated that childhood abuse, neglect, and maladaptive parenting are indeed associated with elevated risk for personality disorders during adolescence and adulthood (e.g., Cohen, 1996; Cohen, Brown, & Smailes, 2001; Drake et al., 1988; Guzder et al., 1996; Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Kasen, et al., 2001; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000; Ludolph et al., 1990; Luntz & Widom, 1994). Moreover, several of these investigations specifically indicate that physical, sexual, and verbal or psychological abuse are independently associated with risk for personality disorders (Guzder et al.; Ludolph et al.; Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Kasen, et al., 2001; Johnson, Cohen, Smailes, et al., 2001; Johnson, Rabkin, et al., 2000).

Hypotheses Regarding How Childhood Adversities May Contribute to PD Development

There are many possible ways in which chronic adversities such as maladaptive parenting and childhood abuse negatively affect personality development, increasing risk for developing personality disorders during adolescence and adulthood. One possibility proposed by Linehan (1993) is the interaction between a biological vulnerability to emotion dysregulation indicated by high sensitivity and high reactivity to painful affects, as well as a slow return to emotional baseline after arousal, and an invalidating environment. Invalidating environments are characterized by caregivers who: (a) respond erratically or inappropriately to private emotional experiences, (b) are insensitive to people's emotional states, (c) have a tendency to over- or underreact to emotional experiences, (d) emphasize rigid control over negative emotions, and (e) have a tendency to trivialize painful experiences or to attribute such experiences to negative traits (e.g., lack of motivation or discipline). The interaction between emotional vulnerability and invalidating environments, it is hypothesized, results in the inability to label and modulate emotions, tolerate and manage emotional or interpersonal distress, and trust private experiences as valid.

Research supporting this hypothesis has indicated that childhood neglect and maladaptive parenting are independently associated with elevated risk for personality disorder even after childhood abuse and parental psychiatric disorders are accounted for (Guzder et al., 1996; Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Kasen, et al., 2001; Johnson, Smailes, et al., 2000; Ludolph et al., 1990). In addition, research has suggested that traumatic experiences including childhood abuse; excessively harsh punishment; and other forms of victimization such as assault, bullying, and intimidation may contribute to the onset of personality disorder traits. Traumatic events may promote the development of affective dysregulation, aggressive behavior, dissociative symptoms, interpersonal withdrawal, and profound mistrust of others (Johnson, 1993; van der Kolk, Hostetler, Herron, & Fisler, 1994). Research confirms that youths who are victims of aggressive or abusive behavior are at elevated risk for the development of PD traits and symptoms (e.g., Johnson, Cohen, Brown, et al., 1999;

Johnson, Cohen, Kasen, et al., 2001; Johnson, Cohen, Smailes, et al., 2001).

Childhood adversities may also have an adverse impact on personality development because they interfere with or alter the normative socialization process that extends beyond the immediate family (Cohen, 1999; Johnson, Cohen, Kasen, et al., 2001). Healthy personality development requires continuous socialization throughout childhood and adolescence, as the child's behavior is molded and refined through day-to-day interactions with parents, teachers, and peers. Although every child has unique temperament characteristics that may be evident from early infancy (Thomas & Chess, 1984), and although these characteristics have an enduring impact on personality development (Hart, Hofmann, Edelstein, & Keller, 1997), socialization and other life experiences also modify these traits and determine the manner in which they are expressed (Cohen, 1999). Cohen's (1999) study suggests that, regardless of the child's temperament, parents, teachers, and other adult supervisors are likely to play an important role in the development of social skills, impulse control, coping strategies, and other characteristics.

In addition, maladaptive parental attachment styles have also been found to influence the personality development of the offspring; the offspring of parents with dysfunctional attachment styles are at elevated risk for a broad array of psychiatric symptoms (Rosenstein & Horowitz, 1996; Sroufe, Carlson, Levy, & Egeland, 1999; see Davila et al., Chapter 9 of this volume). A large literature has emerged linking the development of personality disorders to maladaptive adult attachment patterns, which are theorized to recapitulate one's interpersonal relationship with primary caregivers in childhood. For example, Fossati et al. (2003) used canonical correlation and found that avoidant, depressive, paranoid, and schizotypal PDs significantly correlate with avoidance attachment (attachment characterized by the simultaneous desire for and fear of intimacy) and that dependent, histrionic, and borderline PDs significantly correlate with anxious attachment (attachment characterized by a positive view of others and a negative view of the self). West, Rose, and Sheldon-Keller (1994) showed that preoccupied (enmeshed) and dismissing (detached) attachment styles successfully differentiate between dependent and schizoid PD, respectively. In a nonclinical sample of 1,407 undergraduate students, Brennan and Shaver (1998) used discriminant function analysis to predict belongingness to attachment dimensions based on PD symptoms and found that paranoid, schizotypal, avoidant, self-defeating, borderline, narcissistic, and obsessive-compulsive PD symptoms loaded significantly on the secure-fearful dimension, whereas dependent, schizoid, and histrionic symptoms loaded significantly on the preoccupied-dismissing dimension.

Leading personality theorists such as Erik Erikson (1963) have theorized that personality development consists of a series of psychosocial crises that, depending on the unique interaction among the biopsychosocial forces at work, can be either successfully or unsuccessfully resolved. For example, it is the early experience of the child with his or her primary caregivers that contributes to the child's capacity to develop a sense of basic trust, which forms the basis for his or her capacity to venture forth in the world (autonomy), take risks (initiative), and develop a cohesive sense of self (identity). Interpersonal experiences during childhood that disrupt this basic developmental sequence create conditions for maladaptive thought and behavior patterns. For example, caregivers who invalidate the child's emotional reactions to the world or are insensitive to the child's emotional states run the risk of undermining the communicative function of emotion, which may lead to the child's inability to trust his or her emotional experience of the world (Linehan,

1993). According to Erikson, this basic sense of mistrust creates conditions that foster shame and doubt, inhibit the child's willingness to takes risks because of guilt, and lead to identity confusion in adolescence. In other words, negative childhood experiences—particularly with primary caregivers—are hypothesized to contribute directly to the development of maladaptive personality traits and personality disorders.

Despite evidence that childhood adversities such as abuse and neglect significantly increase the likelihood of developing personality disorders, it should also be noted that personality disorder traits tend to decrease in prevalence over time among children, adolescents, and adults in clinical and community settings (Bernstein et al., 1993; Black, Baumgard, & Bell, 1995; Farrington, 1991; Garnet, Levy, Mattanah, Edell, & McGlashan, 1994; Grilo & Masheb, 2002; Johnson et al., 1997; Johnson, Cohen, Kasen, et al., 2000; Korenblum, Marton, Golombek, & Stein, 1987; Lenzenweger, 1999; Mattanah, Becker, Levy, Edell, & McGlashan, 1995; Orlandini et al., 1997; Ronningstam, Gunderson, & Lyons, 1995; Trull et al., 1998; P. Vaglum, Friis, Karterud, Mehlum, & S. Vaglum, 1993; Vetter & Koller, 1993). Cross-sectional findings have similarly indicated that the prevalence of personality disorder traits declines with age among adolescents and adults (e.g., Johnson, Cohen, Kasen, et al., 2000; Kessler et al., 1994; Robins & Regier, 1991; Samuels et al., 2002). These findings may indicate that most youths and adults eventually learn to inhibit the expression of maladaptive personality traits because these traits are associated with negative consequences (Black et al.; Farrington; Johnson, Cohen, Kasen, et al., 2000; Korenblum et al.; Robins, 1966).

A variety of factors, including parenting, mentoring, biological maturation, societal enforcement of adult role expectations, and other normative socialization experiences, appear to contribute to declines in personality disorder traits from childhood through early adulthood (Stein, Newcomb, & Bentler, 1986). According to this developmental hypothesis, expressed implicitly in *DSM-II, -III,* and *-IV* (APA, 1968, 1980, 1987, 1994, 2000), personality disorder traits and other maladaptive personality traits should peak in prevalence during childhood or early adolescence and then diminish steadily among most individuals throughout adolescence and early adulthood. Although little longitudinal evidence is currently available regarding the prevalence of personality disorders from childhood through adulthood, research has supported the hypothesis that personality disorder traits decline gradually in prevalence from late childhood through early adulthood (Abrams & Horowitz, 1996; Johnson, Cohen, Kasen, et al., 2000). These findings are consistent with the assertion in *DSM-II* (APA, 1968) and *DSM-III-R* (APA, 1987) that personality disorders "are often recognizable by adolescence or earlier" and with the statements in *DSM-IV-TR* that personality disorders "can be traced back at least to adolescence or early adulthood" (APA, 2000, p. 689) and that "the traits of a Personality Disorder that appear in childhood will often not persist unchanged into adult life" (APA, 2000, p. 687).

In addition to the studies cited above, many other studies have yielded findings that are consistent with the hypothesis that personality disorder traits tend to develop during childhood or early adolescence and then decline gradually throughout adolescence and adulthood. Community-based longitudinal studies indicate that many maladaptive personality traits originate during childhood and persist into adolescence and adulthood (Caspi & Roberts, 2001; Charles, Reynolds, & Gatz, 2001; Cohen, 1999; McGue, Bacon, & Lykken, 1993; Roberts & DelVecchio, 2000; Shiner, 2000; Shiner, Masten, & Tellegen, 2002). Complementing the aforementioned

studies is the fact that behavioral and emotional problems during childhood are often associated with personality disorder traits during adolescence and adulthood (Bernstein et al., 1996; Cohen, 1999; Drake et al., 1988; Hart et al., 1997; Newman, Caspi, Moffitt, & Silva, 1997). Indirect support for the hypothesis that personality disorder traits tend to decline during adolescence and adulthood has been provided by cross-sectional studies indicating that overall psychiatric symptom levels tend to be higher among adolescents than among adults in the community (Derogatis, 1983; Pancoast & Archer, 1992).

Clinical and Public Health Implications of Research on Childhood Adversities and Risk for PD

Findings suggesting that maladaptive parenting may play a significant role in the development of personality disorder traits have potentially important clinical and public health implications. It may be possible to prevent the onset of chronic personality disorders by providing high-risk parents with educational and social services that assist them in developing more adaptive parenting behaviors. Research has indicated that it is possible to reduce the likelihood that children will develop psychiatric symptoms by helping parents to learn more effective child-rearing techniques (Irvine, Biglan, Smolkowski, Metzler, & Ary, 1999; Redmond, Spoth, Shin, & Lepper, 1999; Spoth, Lopez, Redmond, & Shin, 1999). In addition, because maladaptive parenting may be associated with parental psychiatric disorders, and because parents with psychiatric disorders who receive treatment may be less likely to engage in maladaptive parenting, it may be possible to reduce offspring risk for personality disorders by improving the recognition and treatment of psychiatric disorders among parents in the community (Chilcoat, Breslau, & Anthony, 1996; Johnson, Cohen, Kasen, et al., 2001).

CHILDHOOD ADVERSITIES ASSOCIATED WITH RISK FOR SPECIFIC PERSONALITY DISORDERS

In the following sections we summarize findings regarding the childhood adversities associated with each *DSM-IV* PD, including two diagnostic criteria sets that have been studied extensively with respect to this issue (i.e., depressive PD, passive-aggressive PD).

Childhood Adversities Associated With Risk for Antisocial Personality Disorder

Antisocial personality disorder is "a pervasive pattern of disregard for and violation of the rights of others, occurring since age 15, and a history of conduct disorder by age 15" (APA, 2000). Individuals with antisocial PD, which is diagnosed among individuals who are at least 18 years of age, tend to have long histories of violating the rights of others over their life span, including being aggressive and indifferent to others' needs. Our review of the literature identified nine studies that examined the association between childhood maltreatment and risk for the development of antisocial PD. As seen in Table 15.1, evidence from retrospective studies (Bernstein, Stein, & Handelsman, 1998; Fondacaro, Holt, & Powell, 1999; Norden et al., 1995; Ogata et al., 1990; Pollock, Briere, & Schneider, 1990; Ruggiero, Bernstein, & Handelsman, 1999; Shearer et al., 1990) has indicated that individuals with antisocial PD are more likely than patients with other personality disorders to report a history of childhood physical abuse, sexual abuse, and emotional neglect. Other studies have provided findings indicating that reports of low levels of parental affection during childhood were associated with

Table 15.1 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Antisocial Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
PC[a]						PC[a]	Johnson, Cohen, Brown, et al. (1999)	639	Prospective community-based longitudinal study of parents and their children (SA, PA, AN); data regarding child abuse obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
	R						Fondacaro et al. (1999)	211	86 male prisoners with childhood SA and 125 male prisoners without history of SA	—	—
R							Pollock et al. (1990)	201	131 men with alcoholic fathers, 70 matched controls	—	Paternal alcoholism
R				R			Bernstein et al. (1998)	339	Patients with alcohol or drug dependence	—	—
					R		Carter et al. (1999)	248	Depressed outpatients	—	—
R					R		Norden et al. (1995)	90	Psychiatric outpatients	—	—

(Continued)

Table 15.1 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
	R						Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
R							Shearer et al. (1990)	40	Female inpatients with borderline PD	—	—
D						D	Widom (1989)	1,575	Prospective study of 908 court-documented cases of abuse and neglect and 667 matched (nonabused) controls	—	Age, sex, race
Summary of Significant Associations											
PC[a]R	R			R	R	PC[a]D					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD; MDD = major depressive disorder.

a. Association remained significant after controlling for other types of childhood abuse and neglect

the development of antisocial PD symptoms (Carter, Joyce, Mulder, Luty, & Sullivan, 1999; Norden et al.). Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggested that childhood physical abuse and any childhood neglect may contribute to elevated risk for the development of antisocial PD.

In addition, problematic parenting has been found to be associated with elevated offspring risk for a broad array of behavior problems, including aggressive and antisocial behavior (Frick et al., 1992; Loeber et al., 2000; Loeber & Farrington, 2000; Reiss et al., 1995; Shaw, Owens, Giovannelli, & Winslow, 2001). Research has also indicated that the association between parental criminality and offspring delinquency may be accounted for, in part, by intervening family processes (Sampson & Laub, 1993, 1994; see Rowe & Farrington, 1997).

Childhood Adversities Associated With Risk for Avoidant Personality Disorder

Avoidant personality disorder is "a pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation" (APA, 2000). Individuals with avoidant PD often have low self-esteem, fear rejection, and have limited friendships. Our review of the literature identified eight studies that obtained evidence of an association between childhood maltreatment and risk for the development of avoidant PD. As seen in Table 15.2, evidence from retrospective studies (Arbel & Stravynski, 1991; Carter et al., 1999; Gauthier, Stollak, Messé, & Aronoff, 1996; Grilo & Masheb, 2002; Ruggiero et al., 1999; Shea, Zlotnick, & Weisberg, 1999) has indicated that individuals with avoidant PD are more likely than those with other personality disorders to report a history of childhood physical abuse, sexual abuse, emotional abuse, emotional neglect, or any childhood neglect.

Other studies have provided findings indicating that shaming, guilt engendering, and intolerant parenting were more likely to be reported among individuals with avoidant PD symptoms than among normal control subjects (Stravynski, Elie, & Franche, 1989), and that patients with avoidant PD reported low levels of parental affection during childhood (Carter et al., 1999; Norden et al., 1995). Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood emotional neglect and any childhood neglect were significantly associated with risk for the development of avoidant PD. Findings of the only study that has reported both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggested that childhood neglect may contribute to elevated risk for the development of avoidant PD.

Childhood Adversities Associated With Risk for Borderline Personality Disorder

Borderline personality disorder is "a pervasive pattern of instability of interpersonal relationships, self-image, and affects and marked impulsivity" (APA, 2000). Our review of the literature identified 18 studies that obtained evidence of an association between childhood maltreatment and risk for the development of borderline PD. As seen in Table 15.3, retrospective studies have indicated that individuals with borderline PD are more likely than other patients to report a history of childhood physical abuse, sexual abuse, emotional abuse, emotional neglect, physical neglect, supervision neglect, and any childhood neglect (Brown & Anderson, 1991; Carter et al., 1999; Dubo, Zanarini, Lewis, & Williams, 1997; Goldman et al., 1992; Herman et al., 1989; Laporte &

(Text continues on page 434)

Table 15.2 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Avoidant Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
					R		Carter et al. (1999)	248	Depressed outpatients	—	—
R						R	Gauthier et al. (1996)	518	College undergraduates	PA, AN	—
		R					Grilo & Masheb, (2002)	116	Outpatients with binge eating disorder	PA, SA, EA, EN, PN	—
						PC[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring.	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
					P[a]	P[a]	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender

Type of Childhood Maltreatment							Study	N	Sample	Other Types of Childhood Maltreatment Controlled Statistically	Other Covariates That Were Controlled Statistically
PA	SA	EA	SN	PN	EN	AN					
	R					R	Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
	R						Shea et al. (1999)	140	Female inpatient and outpatient childhood sexual abuse, comparison samples of veteran, OCD, bipolar, panic, bulimia, and MDD	—	—
					R		Arbel & Stravynski (1991)	45	23 patients attending psychiatric research center and comparison group of 22 matched normal controls	—	—
Summary of Significant Associations											
R	R	R			P[a]R	P[a]C[a]R					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD; OCD = obsessive-compulsive disorder; MDD = major depressive disorder.
a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.3 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Borderline Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
R	R						Brown & Anderson (1991)	947	Inpatient military members and dependents (673 active duty, 346 civilians)	SA, PA	—
					R		Carter et al. (1999)	248	Outpatients with MDD	—	—
R							Goldman et al. (1992)	144	44 outpatient children with BPD and 100 outpatient comparison children	—	—
R	R						Herman et al. (1989)	55	Longitudinal study, borderline, schizotypal, antisocial, and bipolar II affective disorders	—	—
C[a]	PC[a]					P[a]C[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring.	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders
			P[a]			P[a]	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender
R	R	R					Laporte & Guttman (1996)	751	366 patients with borderline PD, 385 patients with other PDs	—	—
	R						Norden et al. (1995)	90	Psychiatric outpatients	—	—
	R						Ogata et al. (1990)	42	24 adult inpatients with BPD and 18 depressed control subjects	—	—

(Continued)

Table 15.3 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
R							Oldham et al. (1996)	50	44 inpatients with BPD, 6 inpatients with other PDs	—	—
	R						Paris (1994)	150	Outpatient women, 78 with BPD and 72 with other PDs	—	—
	R						Shea et al. (1999)	140	Female inpatient and outpatient childhood sexual abuse; comparison samples of veteran, OCD, bipolar, panic, bulimia, and MDD	—	—
R	R						Steiger et al. (1996)	61	Outpatients with bulimia nervosa: 14 with BPD, 30 with other PDs, 17 with no PD	—	—
	R						Weaver & Clum (1993)	36	Female inpatients with diagnosed depressive disorder: 17 BPD, 19 non-BPD	PA	Co-occurring psychiatric symptoms and disorders, family environment

Type of Childhood Maltreatment							Study	N	Sample	Other Types of Childhood Maltreatment Controlled Statistically	Other Covariates That Were Controlled Statistically
PA	SA	EA	SN	PN	EN	AN					
	R						Yen et al. (2002)	653 105	Longitudinal study: 86 schizotypal, 167 borderline, 153 avoidant, and 153 obsessive-compulsive PDs; 94 MDD with no PD	—	Co-occurring PDs and MDD
	R	R					Zanarini et al. (1989)	467	50 outpatients with BPD, 29 with antisocial PD, and 26 with other PDs and comorbid dysthymia	—	—
R	R	R	R	R	R	R	Zanarini et al. (1997)		358 inpatients with BPD, 109 inpatients with other PDs	—	—
Summary of Significant Associations											
C^aR	PC^aR	P^aR	P^a	R	P^aC^aR						

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD; BPD = borderline personality disorder; OCD = obsessive-compulsive disorder; MDD = major depressive disorder.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

Guttman, 1996; Norden et al., 1995; Oldham, Skodol, Gallagher, & Kroll, 1996; Paris, 1994; Shea et al., 1999; Steiger, Jabalpurwala, & Champagne, 1996; Weaver & Clum, 1993; Yen et al., 2002; Zanarini, Gunderson, Marino, Schwartz, & Frankenburg, 1989; Zanarini et al., 1997). These results are particularly compelling because they were obtained in large samples of patients and community members with contrasting demographics. Other studies have indicated that reports of low childhood parental affection were associated with the development of borderline PD symptoms (Carter et al., 1999; Norden et al., 1995).

Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse, sexual abuse, emotional abuse, supervision neglect, and any childhood neglect were associated significantly with risk for the development of borderline PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggested that childhood physical abuse, sexual abuse, and any childhood neglect may contribute to increased risk for the development of borderline PD.

Childhood Adversities Associated With Risk for Dependent Personality Disorder

Dependent personality disorder is "a pervasive and excessive need to be taken care of that leads to submissive and clinging behavior and fears of separation" (APA, 2000). Individuals with dependent PD tend to have a need to be taken care of, have difficulty making decisions, and fear abandonment. Our review of the literature identified six studies that obtained evidence of an association between childhood maltreatment and risk for the development of dependent PD. As seen in Table 15.4, evidence from retrospective studies (Carter et al., 1999; Drake & Vaillant, 1988) has indicated that individuals with dependent PD are more likely than patients with other personality disorders to report a history of childhood emotional neglect and any childhood neglect. In addition, individuals with dependent PD have been found to report that the family of origin was characterized by a high level of parental control and parental overprotectiveness and low levels of family expressiveness and offspring independence (Baker, Capron, & Azorlosa, 1996; Bornstein, in press; Head, Baker, & Williamson, 1991). Patients with dependent PD have also been found to be particularly likely to report a history of low parental affection during childhood (Carter et al.; Norden et al., 1995). Further, research has indicated that dependent PD is often associated with a history of insecure attachment with parents throughout childhood (Pincus & Wilson, 2001), a pattern that pervades later relationships (e.g., friendships, romantic relationships) as well (Sperling & Berman, 1991).

Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse and any childhood neglect were significantly associated with risk for the development of dependent PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood physical abuse and any childhood neglect may contribute to elevated risk for the development of dependent PD.

Childhood Adversities Associated With Risk for Depressive Personality Disorder

Depressive personality disorder is "a pervasive pattern of depressive cognitions and behaviors" (APA, 2000). Individuals with depressive PD will tend to have long histories

Table 15.4 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Dependent Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
					R		Carter et al. (1999)	248	Depressed outpatients	—	—
						R	Drake & Vaillant (1988)	307	Longitudinal study of 307 middle-aged men	—	—
PC[a]						P[a]C[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders

(Continued)

Table 15.4 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
						P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender
Summary of Significant Associations											
PC[a]					R	P^aC^aR					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

of negative mood and have negative views about the self. Our review of the literature identified four studies that obtained evidence of an association between childhood maltreatment and risk for the development of depressive PD. As seen in Table 15.5, evidence from retrospective studies (Briere & Runtz, 1990; Mullen, Martin, & Anderson, 1996) has indicated that individuals with depressive PD are more likely than patients with other personality disorders to report a history of childhood sexual abuse and emotional abuse. Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse, sexual abuse, and any childhood neglect were significantly associated with risk for the development of depressive PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood physical and sexual abuse contribute to increased risk for the development of depressive PD.

Childhood Adversities Associated With Risk for Histrionic Personality Disorder

Histrionic personality disorder is "a pervasive pattern of excessive emotionality and attention seeking" (APA, 2000). Individuals with histrionic PD tend to be overly dramatic and theatrical, to express emotions in exaggerated ways, and to often feel uncomfortable when they are not the center of attention. Our review of the literature identified three studies that obtained evidence of an association between childhood maltreatment and risk for the development of histrionic PD. Unfortunately, this relatively modest data pool limits the conclusions that may be drawn in this area (see Table 15.6). Norden et al. (1995) reported retrospective findings indicating that individuals with histrionic PD were more likely than patients with other PDs were to report a history of sexual abuse. Patients with histrionic PD have also been found to report a high level of parental control, achievement orientation, intellectual-cultural orientation, and a low level of family cohesion (Baker et al., 1996). Prospective data (Johnson, Smailes, et al., 2000) indicate that childhood supervision neglect was significantly associated with risk for the development of histrionic PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood sexual abuse may contribute to elevated risk for the development of histrionic PD.

Childhood Adversities Associated With Risk for Narcissistic Personality Disorder

Narcissistic personality disorder is "a pervasive pattern of grandiosity (in fantasy or behavior), need for admiration, and lack of empathy" (APA, 2000). Individuals with narcissistic PD tend to have long histories of thinking very highly of themselves, such that they believe they should be treated differently than others and deserve special treatment. They often are very occupied with themselves, to the point that they lack sensitivity and compassion for others; when confronted with other successful people, they can often be envious or arrogant or feel depressed. Our review of the literature identified four studies that obtained evidence of an association between childhood maltreatment and risk for the development of narcissistic PD (see Table 15.7). Norden et al. (1995) reported that psychiatric outpatients with narcissistic PD were more likely than patients with other personality disorders to report a history of sexual abuse. Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood emotional abuse, physical neglect, emotional

(Text continues on page 444)

Table 15.5 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Depressive Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
		R					Briere & Runtz (1990)	277	Female undergraduate students	PA, SA, EA	—
P	C[a]						Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
						P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender

Type of Childhood Maltreatment							Study	N	Sample	Other Types of Childhood Maltreatment Controlled Statistically	Other Covariates That Were Controlled Statistically
PA	SA	EA	SN	PN	EN	AN					
	R	R					Mullen et al. (1996)	497	Community sample of women (107 abused and 390 nonabused women)	PA, SA, EA	Other developmental adversities
Summary of Significant Associations											
P	C[a]R	R				P					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.6 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Histrionic Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
	C[a]						Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
			P				Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
	R						Norden et al. (1995)	90	Psychiatric outpatients	—	—
Summary of Significant Associations											
	C[a] R		P								

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.7 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Narcissistic Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
						PC[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
						P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender
	R						Norden et al. (1995)	90	Psychiatric outpatients	—	—
Summary of Significant Associations											
	R	P[a]				PC[a]					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

neglect, and any childhood neglect were significantly associated with risk for the development of narcissistic PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood neglect may contribute to increased risk for the development of narcissistic PD.

Childhood Adversities Associated With Risk for Obsessive-Compulsive Personality Disorder

Obsessive-compulsive personality disorder is "a pervasive pattern of preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency" (APA, 2000). Individuals with obsessive-compulsive PD tend to have long histories of being persistently preoccupied with details, are fixated on having things "done right," and often fail to complete tasks as a result of their perfectionism and rigidity. Our review of the literature identified two studies that obtained evidence of an association between childhood maltreatment and risk for the development of obsessive-compulsive PD (see Table 15.8). Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001) have provided evidence indicating that childhood emotional abuse and any childhood neglect were significantly associated with risk for the development of obsessive-compulsive PD. Because these data are based entirely on community samples, however, the degree to which these patterns generalize to other populations (e.g., psychiatric inpatients) remains unaddressed.

Childhood Adversities Associated With Risk for Paranoid Personality Disorder

Paranoid personality disorder is "a pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent" (APA, 2000). Individuals with paranoid PD tend to have long histories of being very distrustful and suspicious of others with little justification. Our review of the literature identified six studies that obtained evidence of an association between childhood maltreatment and risk for the development of paranoid PD. As seen in Table 15.9, evidence from retrospective studies (Carter et al., 1999; Ruggiero et al., 1999; Shea et al., 1999) has indicated that individuals with paranoid PD are more likely than those with other personality disorders to report a history of childhood sexual abuse and emotional neglect. Other studies have shown that reports of low childhood parental affection were found to be associated with the development of paranoid PD symptoms (Carter et al.; Norden et al., 1995). Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000) have provided evidence indicating that the association between childhood emotional abuse, supervision neglect, emotional neglect, and any childhood neglect and paranoid PD development remained significant even after controlling for other types of childhood abuse and neglect.

Childhood Adversities Associated With Risk for Passive-Aggressive Personality Disorder

Passive-aggressive personality disorder is "a pervasive pattern of negativistic attitudes and passive resistance to demands for adequate performance in social and occupational situations" (APA, 2000). Individuals with passive-aggressive PD tend to have long histories of resisting others' routine requests and expectations as they adopt a negative, subtly aggressive attitude. Our review of the literature identified four studies—which involved both community and clinical samples—that obtained evidence of an association between

(Text continues on page 448)

Table 15.8 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Obsessive-Compulsive Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
						P	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders
Summary of Significant Associations											
		P[a]				P					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.9 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Paranoid Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
					R		Carter et al. (1999)	248	Outpatients with MDD	—	—
						P[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders
			P[a]		P[a]	P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender

Type of Childhood Maltreatment							Study	N	Sample	Other Types of Childhood Maltreatment Controlled Statistically	Other Covariates That Were Controlled Statistically
PA	SA	EA	SN	PN	EN	AN					
	R						Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
	R						Shea et al. (1999)	140	Female inpatients and outpatients with childhood sexual abuse; comparison samples of veteran, OCD, bipolar, panic, bulimia, and MDD	—	—
Summary of Significant Associations											
	R	P[a]	P[a]		P[a]R	P[a]					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD; OCD = obsessive-compulsive disorder; MDD = major depressive disorder.
a. Association remained significant after controlling for other types of childhood abuse and neglect.

childhood maltreatment and risk for the development of passive-aggressive PD. As seen in Table 15.10, evidence from retrospective studies (Drake & Vaillant, 1988; Ruggiero et al., 1999) has indicated that individuals with passive-aggressive PD are more likely than patients with other personality disorders to report a history of sexual abuse and any childhood neglect. Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse, supervision neglect, and any childhood neglect were associated significantly with risk for the development of passive-aggressive PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood physical abuse and any childhood neglect may contribute to elevated risk for the development of passive-aggressive PD.

Childhood Adversities Associated With Risk for Schizoid Personality Disorder

Schizoid personality disorder is "a pervasive pattern of detachment from social relationships and a restricted range of expression of emotions in interpersonal settings" (APA, 2000). Individuals with schizoid PD often do not want or enjoy close interpersonal relationships, and as a result, they appear cold and detached. Our review of the literature identified six studies that obtained evidence of an association between childhood maltreatment and risk for the development of schizoid PD. As seen in Table 15.11, retrospective studies have provided evidence indicating that individuals with schizoid PD are more likely than patients with other personality disorders to report a history of sexual abuse or childhood emotional neglect (Bernstein et al., 1998; Norden et al., 1995; Ruggiero et al., 1999). Other studies have obtained findings indicating that reports of low childhood parental affection were associated with the development of schizoid PD symptoms (Carter et al., 1999). Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse, emotional abuse, supervision neglect, physical neglect, emotional neglect, and any childhood neglect were significantly associated with risk for the development of schizoid PD.

Childhood Adversities Associated With Risk for Schizotypal Personality Disorder

Schizotypal personality disorder is "a pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behavior" (APA, 2000). Individuals with schizotypal PD tend to be socially isolated, to act and think in unusual and bizarre ways (e.g., ideas of reference and magical thinking), and to be suspicious of others. Our review of the literature identified seven studies that obtained evidence of an association between childhood maltreatment and risk for the development of schizotypal PD (see Table 15.12). Evidence from retrospective studies has indicated that individuals with schizotypal PD are more likely than patients with other personality disorders to report a history of childhood physical abuse, sexual abuse, or neglect (Norden et al., 1995; Ruggiero et al., 1999; Shea et al., 1999; Yen et al., 2002). Prospective studies (Johnson, Cohen, Brown, et al., 1999; Johnson, Cohen, Smailes, et al., 2001; Johnson, Smailes, et al., 2000) have provided evidence indicating that childhood physical abuse, emotional abuse, physical neglect, emotional neglect, and any childhood neglect were significantly associated with risk for the

(Text continues on page 455)

Table 15.10 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Passive-Aggressive Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
						R	Drake & Vaillant (1988)	307	Longitudinal study of 307 nonalcoholic middle-aged men	—	—
PC[a]						PC[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
			P[a]			P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age, and gender

(Continued)

Table 15.10 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
	R						Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
Summary of Significant Associations											
PC[a]	R	P[a]				PC[a]R					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.

a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.11 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Schizoid Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
					R		Bernstein et al. (1998)	339	Patients with alcohol or drug dependence	—	—
P							Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders

(Continued)

Table 15.11 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
			P	P	P	P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender
					R		Norden et al. (1995)	90	Psychiatric outpatients	—	—
	R					R	Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
Summary of Significant Association											
P	R	P[a]	P	P	PR	PR					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD.
a. Association remained significant after controlling for other types of childhood abuse and neglect.

Table 15.12 Findings From Studies of Associations Between Specific Types of Childhood Maltreatment and Schizotypal Personality Disorder (PD) Traits

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
C[a]						C[a]	Johnson, Cohen, Brown, et al. (1999)	639	Community-based prospective longitudinal study of parents and their children (SA, PA, AN); childhood maltreatment data obtained from state records and retrospective reports by offspring	PA, SA, AN	Co-occurring PD symptoms; child age and gender; parental education, income, and psychiatric disorders
		P[a]					Johnson, Cohen, Smailes, et al. (2001)	793	Community-based prospective longitudinal study (maternal verbal abuse), assessed by maternal reports during the child-rearing years	PA, SA, AN	Child temperament, physical punishment, co-occurring psychiatric disorders, parental education and psychiatric disorders
				P		P	Johnson, Smailes, et al. (2000)	738	Community-based prospective longitudinal study of parents and their children; data regarding childhood neglect were obtained from state records and maternal reports during the child-rearing years	PA, SA, EN, SN, PN, CN	Co-occurring PD symptoms, child age and gender

(*Continued*)

Table 15.12 (Continued)

Type of Childhood Maltreatment							*Study*	*N*	*Sample*	*Other Types of Childhood Maltreatment Controlled Statistically*	*Other Covariates That Were Controlled Statistically*
PA	*SA*	*EA*	*SN*	*PN*	*EN*	*AN*					
	R						Norden et al. (1995)	90	Psychiatric outpatients	—	—
	R					R	Ruggiero et al. (1999)	200	Male inpatient veterans with substance dependence	—	—
	R						Shea et al. (1999)	140	Female inpatients and outpatients with childhood sexual abuse; comparison samples of veteran, OCD, bipolar, panic, bulimia, and MDD	—	—
R							Yen et al. (2002)	653	Longitudinal study: 86 schizotypal, 167 borderline, 153 avoidant, and 153 obsessive-compulsive PDs; 94 MDD with no PD	PA, SA	Co-occurring PDs, MDD
Summary of Significant Association											
C^aR	R	P^a		P^a	PC^a	P^aC^aR					

NOTES: PA = childhood physical abuse; SA = childhood sexual abuse; EA = childhood emotional abuse (verbal abuse is classified as emotional abuse); SN = childhood supervision neglect; PN = childhood physical neglect; EN = childhood emotional neglect; CN = childhood cognitive neglect; AN = any childhood neglect; AM = any childhood maltreatment; P = prospective epidemiological findings, based on documented evidence of childhood maltreatment, were significant after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; C = combined prospective and retrospective reports of childhood physical abuse, sexual abuse, or any childhood neglect yielded significant findings after controlling for co-occurring PD symptoms, parental education, and parental psychiatric symptoms; R = retrospective clinical studies have obtained a significant association after covariates were controlled statistically; D = individuals with a documented history of physical abuse or neglect were significantly more likely than controls to be diagnosed with antisocial PD; OCD = obsessive-compulsive disorder; MDD = major depressive disorder.
a. Association remained significant after controlling for other types of childhood abuse and neglect.

development of schizotypal PD. Findings of the only study that has reported findings based on both retrospective and prospective data (Johnson, Cohen, Brown, et al., 1999) suggest that childhood physical abuse and any childhood neglect may contribute to elevated risk for the development of schizotypal PD.

HYPOTHESIZED ASSOCIATIONS OF SPECIFIC TYPES OF CHILDHOOD MALTREATMENT WITH RISK FOR THE DEVELOPMENT OF SPECIFIC PDs

Research on the association between childhood maltreatment and PDs has advanced significantly in recent years. Current findings suggest that specific combinations of childhood emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, and supervision neglect may be associated with the development of specific PD syndromes. Although much research remains to be done, evidence from retrospective studies and from prospective studies that have controlled for co-occurring childhood maltreatment and PD symptoms, supports the following hypotheses: (a) Youths that experience physical abuse and one or more types of childhood neglect may be at particularly elevated risk for antisocial PD. (b) Those that experience emotional neglect may be at elevated risk for avoidant PD. (c) Youths that experience sexual abuse and either emotional abuse, physical abuse, or one or more types of childhood neglect may be at particularly elevated risk for borderline PD. (d) Youths that experience one or more types of childhood neglect in the absence of other forms of abuse may be at elevated risk for dependent PD. (e) Those that experience physical abuse, sexual abuse, or both may be at elevated risk for poor self-esteem and other traits associated with depressive PD. (f) Youths that experience sexual abuse alone may be at elevated risk for histrionic PD. (g) Those that experience emotional abuse and one or more types of childhood neglect may be at particularly elevated risk for narcissistic PD. (h) Childhood emotional abuse may contribute to the development of obsessive-compulsive PD. (i) Childhood emotional abuse, in combination with emotional or supervision neglect, may contribute to the development of paranoid PD. (j) Youths that experience physical abuse, supervision neglect, or both may be at elevated risk for passive-aggressive PD. (k) Those that experience any emotional abuse and one or more other types of childhood maltreatment may be at particularly elevated risk for schizoid PD. (l) Youths that experience emotional abuse, physical abuse, or physical neglect may be at elevated risk for schizotypal PD.

CONCLUSIONS

A substantial body of research evidence has indicated that individuals with PDs are more likely than other individuals to report a history of childhood adversities, including abuse, neglect, maladaptive parenting, and traumatic life events. Retrospective studies have also provided considerable evidence suggesting that specific combinations of childhood adversities may be differentially associated with risk for the development of specific types of PDs. Although strong inferences regarding causality are not possible based on retrospective data, prospective longitudinal studies have provided additional evidence supporting the hypothesis that specific combinations of childhood adversities are differentially associated with risk for specific PDs. These results dovetail with an accumulating body of evidence from genetic and neurobiological studies supporting the overall hypothesis that childhood abuse contributes to elevated risk for the development of PDs.

However, many questions regarding the association between the childhood adversities and risk for PDs remain unanswered.

As noted above, retrospective studies have provided most of the evidence that is currently available regarding these associations, and many associations between specific combinations of childhood adversities and specific PDs have not yet been investigated in a systematic manner. Thus, although there have been noteworthy advances in recent years, scientific understanding of the role that childhood adversities may play in the development of PDs remains somewhat limited. The evidence that is currently available suggests that childhood adversities may play an important role in the development of PDs and that certain combinations of childhood adversities may be differentially associated with risk for specific types of PDs. Increasingly, it will be important for future studies to investigate how childhood adversities may interact with genetic, prenatal, and other vulnerability factors to promote the development of PD symptoms. Researchers have recently begun to make important strides in this direction (e.g., Caspi et al., 2002; Foley et al., 2004), but much more work of this kind needs to be done. In addition to investigating the interaction of genetic and environmental factors, it will be important to investigate the three-way interaction of genetic, prenatal, and environmental factors. Such studies hold the promise of improving our understanding of the etiology of PDs and promoting advances in the prevention and treatment of these chronic and debilitating disorders.

NOTES

1. For example, the interpersonal theory of suicide holds that those with a history of highly problematic interpersonal relationships during childhood may be particularly associated with risk for suicidal behavior later in life, if there have been repeated interpersonal difficulties during adolescence and adulthood (see Johnson, Rabkin, et al., 2000).

2. These investigations have suggested that, because life experiences have a profound effect on the development of neuronal interconnections in the brain throughout childhood and beyond, most mental disorders, even those caused by maltreatment and other adversities, may be viewed as having an important biological or neuropsychological component. Thus, biological vulnerabilities detected as deficits in neurological or neuropsychological functioning may stem at least in part from a history of chronic or severe adversity, ranging from childhood maltreatment to traumatic life events that may take place throughout the life span.

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