CHAPTER 21

Personality Disorders

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Personality may be defined as a constancy in the way an individual feels, thinks, acts, copes, and relates to others across situations and over time (Berens, 1999). A personality disorder (PD) is an enduring pattern of feeling, thinking, relating, coping, and experiencing that is pervasively maladaptive within a given environment and culture (American Psychiatric Association, 2013). Treatment of a PD, thus, is a *treatment of an individual within a context*, as opposed to a specific set of symptoms (e.g., depression, anxiety).

The rigid and enduring pattern of maladaptive organization that defines a PD provokes clinicians to use reasonable caution when diagnosing and treating children and adolescents. Children are bombarded by ever-changing formative experiences and are immersed in the plasticity of the developmental process, the maturation of the body, and the inconstancy of the identity. Given such a fluid premise, how can we diagnose a rigid pathology? How do we conduct a *treatment of an individual*, if the identity is not fully established? These same challenges, on the other hand, can also be seen as advantages when attempting to intervene. If a personality has yet to take form and formative experiences can still be modified, promoting a more adaptive restructuring of a budding maladaptive organization may be less challenging than when it has already crystalized. The main premise of treating pediatric PDs resides in the malleability of the formative factors.

Our focus in this chapter is to provide an overview of what is known regarding the nature, development, and treatment of PDs in children and adolescents. This is a challenging task given that research in this area is lacking, beyond what has been reported for borderline PD. Indeed, only few interventions for pediatric PDs have been examined in randomized controlled trials (RCTs). Therefore, we would like to start by acknowledging that our discussion of PD treatment consists of what has been empirically evaluated, as well as a clinical acumen elaborated by the leaders in the field.

Classification of PDs

The PD diagnoses, labeled Axis II diagnoses in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV; American Psychiatric Association, 1994), are associated with tremendous functional impairment, are relatively chronic, and are seen as treatment resistant due to the often ego-syntonic nature of the experienced symptoms. DSM-IV shaped the dominant classification system and perception of PDs, which have been retained in DSM-5. In DSM-5, there are ten PDs, subdivided into three clusters. Cluster A, often referred to as the "odd and eccentric disorders," includes schizotypal PD, schizoid PD, and paranoid PD; Cluster B, often thought of as "emotional, dramatic, and erratic" PDs, includes narcissistic PD, borderline PD, antisocial PD, and histrionic PD; and Cluster C contains the "anxious" PDs, such as obsessive–compulsive PD, dependent PD, and avoidant PD (American Psychiatric Association, 2013).

There has been disagreement in the field about the nature, diagnosis, and classification of PDs in general. Much of this stems from what may be seen as two competing points of view, one rooted in what has been the traditional clinical psychology framework, and the other coming from personality psychology (Widiger & Trull, 2005). The traditional clinical view is reflected in the DSM-5 and ICD-10 diagnostic systems, which prefer a categorical, medical model of PD diagnosis. The personality psychology framework, on the other hand, prefers a dimensional approach based largely on the five-factor model (FFM) of personality, or the "Big Five." The FFM consists of five dimensions of personality traits: Extraversion, Neuroticism, Conscientiousness, Agreeableness, and Openness to Experience (Costa & McCrae, 2010; Widiger & Costa, 2012). The dimensional model holds that maladaptive variants of these personality traits may manifest in PDs.

There are several arguments against the traditional categorical model. PD diagnoses as outlined in DSM-5 have significant comorbidity rates, which suggests that the diagnoses are not accurate measures of distinct constructs (Newton-Howes, Clark, & Chanen, 2015). Additionally, there is evidence that the diagnostic coverage in DSM categories is limited, as is seen with the frequent use of the PD-not otherwise specified in DSM-IV (Widiger & Trull, 2007) or unspecified personality disorder in DSM-5. Furthermore, the topography of symptoms within one categorical diagnosis is often heterogeneous (Widiger & Trull, 2007).

The APA Board of Trustees decided to include an alternative personality trait model of PDs in Section III of DSM-5 due to the "numerous shortcomings of the current approach to personality disorders," which is described in Section II, and to "preserve continuity with current clinical practice" (American Psychiatric Association, 2013). The authors also recognize that unspecified personality disorder category has limited clinical utility. Perhaps ironically, DSM-5 Section III offers a new category of PDs that is based on personality trait dimensions: PD—trait specified. This addition may be driven by the changes in the field reflected in the National Institute of Mental Health (NIMH) Research Domain Criteria Project (RDoC), which also favors a dimensional approach to diagnosis based on trait domains, and how they map onto the RDoC primary constructs of symptoms. One aim of RDoC is to understand the full range of psychosocial functioning from normal to abnormal, without using certain criteria or cutoffs to define what is a disorder (Cuthbert, 2014). One advantage is that this approach would allow greater transdiagnostic approaches to both research and treatment, as opposed to the traditional understanding of disorders as distinct and impermeable. The RDoC system may lend itself particularly well to the study of PD given that the manifestation of disordered personality functioning is often wide-ranging, complex, and not easily codified into distinct disorders.

RDoC consists of a matrix currently containing seven columns that represent levels of analysis that cover genes (e.g., *5-HTT*), molecules (e.g., dopamine), cells (e.g., mirror neurons), brain circuits (e.g., amygdala-brainstem), physiology (e.g., startle reflex), behavior (e.g., identification of emotion), self-report (e.g., arousal ratings), and paradigms (e.g., Penn Emotion Recognition); and five rows that represent major domains of functioning. As will become more apparent from further discussion of the development of PDs, a better understanding of character pathology may be gained from using all five major RDoC domains: negative valence systems (e.g., loss, response to threat, frustrative nonreward), positive valence systems (e.g., approach motivation, reward learning, habit), cognitive systems (e.g., cognitive control, attention), social processes (e.g., attachment, formative relationships, perception and understanding of self and other), and arousal systems (e.g., emotional

sensitivity, callous–unemotional traits). We have yet to see how the field of PD will shape up, but undoubtedly changes in classification will greatly affect our understanding, assessment, and ultimately the treatment of the PDs across the lifespan.

Prevalence of Pediatric PDs

Recent researchers have estimated that 10–20% of the general population suffers from a PD (Sadock & Sadock, 2014), between 6 and 17% of adolescents have a PD (Johnson, Cohen, Chen, Kasen, & Brook, 2006), and PDs are seen in 41–69% of adolescent clinical samples (Kongerslev, Chanen, & Simonsen, 2015). In 2005, Cohen, Crawford, Johnson, and Kasen completed the Children in the Community (CIC) project, a landmark longitudinal study that tracked psychiatric symptoms, including Axis II disorders, of approximately 800 children and adolescents over a 20-year period. Much of our understanding of the course and nature of PDs in youth stems from the results of the CIC, which found that PDs are present in adolescence, and significant PD traits are found in childhood (Cohen, 1996; Cohen et al., 2005). Indeed, evidence suggests that PD symptoms reach their apex in adolescence and slowly decline in a linear fashion by the late 20s (Kongerslev et al., 2015; Newton-Howes et al., 2015).

Why Diagnose Pediatric PDs?

Despite the mounting evidence that PDs can be detected in childhood and adolescence, there is still a debate in the field, particularly among clinicians, on the benefits and costs of diagnosing PDs before adulthood. The issue is confused by the wording of the DSM-5 itself, which states that although PDs can be diagnosed in adolescence and childhood (excluding antisocial PD, which can only be diagnosed beginning at age 18), it should only be done in "unusual" circumstances (American Psychiatric Association, 2013). The pros and cons of such a practice have been argued, and many clinicians worry that PDs are a lifelong diagnosis. This is compounded by the belief that the diagnosis of a PD will have a stigmatizing effect, and may lead to a self-fulfilling prophecy of dysfunction and impairment as one develops (De Clercq & De Fruyt, 2007). A consideration that these labels may carry too much of a malignant and chronic stigma (Kongerslev et al., 2015), coupled with the perception that youth personality is seen as largely malleable and constantly changing, gives rise to the idea that PDs should not be diagnosed until one's personality truly crystallizes in adulthood (Freeman, Reinecke, & Tomes, 2007). A pernicious example that may support this consideration comes from the juvenile justice system, in which a disproportionate number of minority juveniles are given a diagnosis of a conduct disorder (a precursor for antisocial PD) or psychopathy, which may lead toward harsher sentencing and punishment (Seagrave & Grisso, 2002).

However, many assert that these arguments are dwarfed by the potential benefits of recognizing and labeling PDs in youth, and are indeed proof of the urgency and necessity of improving the field's ability to diagnose PDs earlier, more accurately, and faster. Studies have shown that personality and PD traits are moderately stable in childhood, gradually increase in stability as one ages (Roberts & DelVecchio, 2000; Shiner, 2005), persist across lifespan (De Clercq & De Fruyt, 2007), but gradually decline in adulthood (Cohen, 2008). This suggests a significant personality stability throughout development, as well as a possibility of personality change. The plasticity of the developmental process points to the need to identify PDs as early as possible, so that treatment may be more effective (Frick, 2002). Adolescent PDs are associated with myriad negative outcomes, such as increased social and occupational impairment, criminality, suicidality, depression, substance use, and (prior to DSM-5) Axis I disorders (Johnson, Cohen, Brown, Smailes, & Bernstein, 1999). To ignore the reality of these symptoms and associated impairments may be a disservice to young people, as diagnosis and recognition allow for further development of effective treatments that can alleviate suffering (Freeman et al., 2007).

With that said, caution should be exercised in making a diagnosis of a PD when some of the symptoms reflect a child's developmental stage. We recommend giving a diagnosis of PD only when enough diagnostic criteria are satisfied, excluding symptoms that can be age-appropriate. For example, a diagnosis of a borderline PD can be given if a preadolescent child has five of the following symptoms and these symptoms are present in multiples contexts: (1) a pattern of unstable and intense interpersonal relationships alternating between *extremes* of idealization and devaluation; (2) impulsivity in at least two areas that are

potentially *self-damaging* (and not just due to a lack of forethought or reflection on consequences); (3) recurrent suicidality and/or nonsuicidal self-injury (NSSI); (4) *severe* affective instability; (5) *chronic* feelings of emptiness; and (6) stress-related, transient paranoid ideation or severe dissociative symptoms. As can be seen, the list of symptoms has been truncated, from nine criteria that are used for adults to six criteria that can be applicable to children with character pathology. Indeed, the remaining issues, namely, efforts to avoid abandonment (e.g., separation anxiety), an unstable sense of self and difficulty with controlling anger, can be expected for prepubertal children.

We understand that this approach is quite stringent, yet, it allows for the diagnosis of PDs early in life, while remaining sensitive to a youth's developmental stage and avoiding the risk of over-pathologizing. Within this approach, virtually any diagnosis of a PD can be given to pre-adolescent children, except for dependent PD (we are excluding antisocial PD from this discussion due to the specific age requirement for this diagnosis). However, a dependent PD diagnosis can be given to adolescents, as it is normative to expect an increase in autonomy and resistance to parental efforts to control and regulate behaviors. On the other hand, more caution should be exercised when giving a diagnosis of narcissistic PD to an adolescent, as narcissistic traits are more common in adolescence (e.g., arrogant attitudes, haughty behaviors, a sense of entitlement, self-importance, believing in being "special" and not understood) than in childhood.

Development of PDs

Developing an all-encompassing case formulation for the etiology of PDs is a difficult task. The disorders themselves are heterogeneous; for example, can the causes of antisocial PD be all that similar to avoidant PD? Yet, despite their symptomatic heterogeneity, there are many common factors and patterns that had been linked to the increased risk of the development of a PD.

Heritability

Children of parents who suffer from psychopathology are at a greater risk for developing a personality dysfunction (Paris, 2000). Parental psychopathology may contribute to the heritability of mental illness, as well as shape the environment in which these children are raised. Coolidge, Thede, and Jang (2001) conducted a heritability study of PDs with 112 pairs of twins, and found that the mean heritage coefficient between the PDs was .75, with dependent PD and schizotypal PD having the highest heritability influence (.81 heritability coefficient) and paranoid PD having the lowest (.5 coefficient). As well, the presence of a neurodevelopmental disorder is a risk factor for antisocial PD, with earlier onset conveying higher risk (Frick, O'Brien, Wooton, & McBurnett, 1994).

Neurobiology

Most of what we know about neurobiological factors associated with PDs stems from research on borderline PD, which is also limited (Crowell, Beauchaine, & Linehan, 2009). Functional magnetic resonance imaging (fMRI) scans have indicated that adult women with borderline PD show frontal–limbic dysfunction when experiencing negative emotions tasks as compared to healthy control subjects (Jacob et al., 2013) and impaired performance on neurocognitive tasks (Soloff et al., 2017). In a meta-analysis of studies that comprised 154 patients with borderline PD and 150 control subjects, Ruocco, Amirthavasagam, Choi-Kain, and McMain (2013) found that when negatively emotionally aroused, borderline PD patients showed less activation of the amygdala as compared to the control subjects. Conversely, they showed greater insula and posterior cingulate cortex activation (Ruocco et al., 2013). Another meta-analytic review indicated that overactivation of the amygdala features heavily in patients with borderline PD, which may support the hypothesis that those with borderline PD have heightened emotional sensitivity (van Zutphen, Siep, Jacob, Goebel, & Arntz, 2015). In one study, 11 adults diagnosed with borderline PD showed a decrease in amygdala activation when exposed to unpleasant pictures after a course of dialectical behavior therapy. Individuals with borderline PD may also tend to find neutral or ambiguous stimuli (i.e., a blank facial expression) emotionally arousing (Ruocco & Carcone, 2016). It should be noted that studies using fMRI to investigate neural correlates of borderline PD are just beginning, and different studies yield conflicting results regarding the brain systems that are believed to be responsible for emotion regulation (van Zutphen et al., 2015).

Neurobiological research on the other PDs is sparser and in some cases nonexistent in the pediat-

ric population. Research has suggested that schizotypal PD is similar to schizophrenia in terms of neurobiological abnormalities. For example, patients with schizotypal PD exhibited enhanced cognitive performance on neurocognitive tasks after being administered antipsychotic compounds (Ettinger, Meyhöfer, Steffens, & Koutsouleris, 2014).

Temperament

Perhaps not surprisingly, a child's temperament contributes to his or her personality traits (Paris, 2007). Temperament, which affects one's feelings, thoughts, and behaviors, is genetically influenced, present at birth, and continuous with adult personality (Caspi et al., 2003). Indeed, Caspi, Moffitt, Newman, and Silva (1996) were able to predict the presence of future antisocial behaviors from behavioral observations of 3-year-olds. Antisocial PD has been shown to be rooted strongly in temperament, with early-onset conduct disorder having worse prognostic outcomes than that with later onset (Cadoret, Yates, Troughton, Woodworth, & Stewart, 1995). Children with a behaviorally inhibited temperament, on the other hand, are at increased risk of developing avoidant PD, and heightened anxiety in general (Robin, Cohan, Hambrick, & Albano, 2007).

A study examining dimensions of temperament indicated that adolescents with borderline PD who engage in NSSI had heightened levels of novelty-seeking and harm avoidance behaviors as compared to healthy control subjects (Tschan, Peter-Ruf, Schmid, & In-Albon, 2016). Children with a "reactive temperament," defined as being easily emotionally frustrated in response to stress, may be at a higher risk for developing borderline personality features, especially if they experience peer victimization (Haltigan & Vaillancourt, 2016). Furthermore, a longitudinal study following 2,450 girls found that elevated levels of emotionality and low levels of sociability in childhood infer greater risk of developing borderline PD symptoms in adolescence (Stepp, Keenan, Hipwell, & Kreuger, 2014).

Environment

It is not easy to disentangle the relationship between biology and environment for the genesis of mental illness, but it is believed that early presence of pathology may be more influenced by biology, while the later presence of pathology is more likely influenced by the environment (Paris, 1999, 2007). Of the environmental factors that contribute to PD development, the most important one is family, and more specifically, parenting practices. There is a tremendous body of research indicating that a history of child abuse is highly correlated with PD development (Cupit Swenson, Brown, & Lutzker, 2007). However, a critical finding of the CIC study is that maladaptive parenting practices increase the odds of PD development, even more so than a history of child abuse (Magnavita, 2007).

The strongest evidence base suggesting that biological makeup plays an important role in the development of PD comes from studies on the "Cluster A," odd and eccentric category of PDs, yet research suggests that environmental factors still have an important influence. A study of 995 children revealed that higher allostatic load, or the cumulative effects of stress on one's stress response system, from ages 3 to 11 years increases risk of developing schizotypal personality disorder at 23 years of age (Peskin, Raine, Gao, Venables, & Mednick, 2011). Although an organic deficit in their stress response systems may have been present, as children, these subjects experienced heightened environmental stress during critical formative years.

The most research on the environmental factors that contribute to PD development has been done on the "Cluster B" emotional, dramatic, and erratic category: narcissistic PD, antisocial PD, borderline PD, and histrionic PD. Narcissistic PD is heavily associated with parenting styles that are characterized by overindulgence and overvaluation, not necessarily parental warmth (Brummelman et al., 2015; Freeman, 2007). Freeman and Rigby (2003) conceptualized a number of family factors that contribute to narcissistic PD, such as parents viewing their child as special, the presence and modeling of narcissism, and being overly permissive. Alternatively, narcissistic overcompensation can occur in response to parental neglect.

There is a strong association between antisocial PD and childhood conduct disorder (CD) (Lahey, Loeber, Burke, & Applegate, 2005; Robins, 1966; Robins & Price, 1991). A transition from oppositional defiant disorder (ODD) to CD to antisocial PD has been clearly delineated, with childhood-onset CD, as opposed to adolescent-onset CD, greatly increasing risk of a character pathology in adulthood (Perepletchikova, 2010). Individuals with childhood-onset CD usually have an early diagnosis of ODD, symptoms that meet full criteria for CD before puberty, with odds of subsequent

antisocial PD increasing by 37% at each number of childhood CD symptoms (Lahey et al., 2005).

Family factors that correlate with CD include (1) having a parent with antisocial characteristics (Lahey & Waldman, 2017); (2) maternal substance abuse, low intelligence, and young age at first birth (Lahey et al., 2005; Lahey, Moffitt, & Caspi, 2003; Robins, 1966); (3) changes in parental relationships (e.g., from married to divorced), presumably by disrupting parental consistency, structure, and/or supervision (Goodnight et al., 2013; Lahey, Miller, Gordon, & Riley, 1999); and (4) inconsistent and punitive discipline, including corporal punishment (Stormshak, Bierman, McMahon, & Lengua, 2000).

Borderline PD is associated with low levels of parental care (Infurna et al., 2016), maladaptive reinforcement patterns (DiTomasso, Hale, & Timchack, 2007), and parental dysfunction (Crick, Woods, Murray-Close, & Han, 2007). It is easy to see how a child with severe emotion regulation deficits may be invalidated by parents who do not understand the difficulties their child is experiencing, who minimize these difficulties or ignore them entirely, and do not model adaptive coping skills. The child then engages in maladaptive coping behaviors, such as NSSI, to gain relief from emotional suffering. Such escalation also usually attracts attention and nurturance from the previously distant environment, thus reinforcing dysfunctional coping. The transaction between the child's biological vulnerability and environmental inability to meet the child's needs is discussed in further detail in the next section of the chapter.

It is theorized that children who develop histrionic PD may be overwhelmed with family dysfunction or trauma and have parents who try to overcompensate for chronic disturbance in the environment by becoming overinvolved with their children (Crawford & Cohen, 2007). Indeed, maternal overinvolvement has been correlated to histrionic PD (Bezirganian, Cohen, & Brook, 1993). The tendency of a family to reinforce attention seeking in a child with a genetic disposition toward emotionality might be a pathway to histrionic PD (Cooper & Ronnington, 1992). Kernberg (1991) also postulated that fathers of females with histrionic PD might combine early sexual seductiveness with puritanical attitudes, while mothers might be domineering.

Maladaptive parenting practices are also associated with the "Cluster C" anxious and fearful personality structures that includes dependent PD, avoidant PD, and obsessive–compulsive PD.

Dependent PD is rarely diagnosed in childhood, as it is developmentally appropriate for children to exhibit dependence on others. However, the disorder may have its roots in early childhood. It has been found that parental authoritarianism and overprotectiveness are associated with increased dependency in children over time (Bhogle, 1983; Bornstein, Becker-Weidman, Nigro, Frontera, & Reinecke, 2007; McPartland & Epstein, 1975). These parents may reinforce dependence in their children by sending messages that a child is weak, vulnerable, must give in to authority at all times, and learn acquiescence as the primary strategy for interpersonal functioning. Like most disorders, it is likely that a child has biological predispositions to anxiety and dependence, and may elicit overprotective behaviors from their caretakers. In this way, the child and environment transact to cause a worsening of dependent symptoms over time (Bornstein et al., 2007).

Although temperamental factors such as behavioral inhibition have been strongly correlated with the development of avoidant PD, parental neglect is also predictive of the development of this PD. Self-reported experiences of childhood neglect and low parental nurturance in adults is significantly associated with avoidant PD symptoms (Johnson et al., 1999, 2006). Of particular risk for avoidant PD is emotionally neglectful parenting (Johnson, Smailes, Cohen, Brown, & Bernstein, 2000). Despite these findings, not much research has been done on the etiology of avoidant PD in childhood and adolescence; much of the research has relied on retrospective studies with adult subjects (Robin et al., 2007).

Obsessive–compulsive PD is characterized by maladaptive perfectionism that may include a preoccupation with rules, excessive devotion to work, inflexibility about matters of morality or values, rigidity and stubbornness in dealing with others, and miserliness or hoarding (Franklin, Piacentini, & D'Olio, 2007). Often these rigid preoccupations lead to extreme anxiety and a persistent vulnerability to distress (Nealis, Sherry, Sherry, Stewart, & MacNeil, 2015). The development of perfectionism can be identified in childhood, although it is not often seen as maladaptive (Franklin et al., 2007). It is thought that reinforcement of perfectionism in vulnerable children—by parents, teachers, or authority figures—can exacerbate the maladjustment and cause it to persist (Franklin at al., 2007). Indeed, self-critical and narcissistic perfectionism in adolescents is strongly associated with controlling parents and is characterized by

guilt inducement, withdrawal of love, and conditional regard (Curran, Hill, & Williams, 2017).

Transaction between Biological and Environmental Factors

As can be seen from the previous section, it is almost impossible to discuss the effects of environment on the development of psychopathology in isolation from the child's biology. The diathesis–stress model of person-in-environment is best represented by the Linehan's (1993) biosocial model of the development of borderline PD, in which an emotionally vulnerable individual is exposed to an invalidating environment, which then may cause the person to fail to develop adaptive emotion regulation. An invalidating environment is created when parents pervasively and indiscriminately invalidate (i.e., reject that a response makes sense given the premise) both the valid and the invalid responses of the child. There is evidence to support the development of PDs as stemming from a transaction between an environment and a genetic vulnerability, especially for borderline and antisocial personality structures (Cadoret et al., 1995; Caspi et al., 2003; Crick et al., 2007).

In the biosocial model, a biological predisposition or an invalidating environment alone is not sufficient to result in severe and chronic personality dysfunction; instead, the disorder must be understood in the transaction between the two. Children who have biological vulnerability or irregularity in their emotion regulation system by temperament or heritable traits present myriad demands on parents that may be stressful, complex, and counterintuitive. Parents are frequently ill-equipped to handle this level of challenge, may not understand where these issues stem from and may be suffering from their own psychological and socioeconomic difficulties. Limited ability to meet the child's needs may lead to a pervasive invalidation of the child's responses. Invalidation destabilizes the child further. A more destabilized child continues to stretch the demands on the environment, which leads to further invalidation. This transaction can become a vicious cycle, leading to a psychopathology. Transaction means that the child and the parents are continuously adapting to each other. However, although such mutual influences may lead to exacerbation of the child's psychological problems, it may potentially also help alleviate problems associated with biological vulnerabilities, if parental ability to meet the child's needs is improved.

Treatment Paradigms

As discussed earlier, borderline PD is the only PD with extensive clinical research in youth. Therefore, in the majority of this section we detail interventions for borderline PD in childhood and adolescence, followed by general clinical guidelines for other PDs.

Borderline PD Treatments

Four therapies for adolescents with borderline PD and borderline personality features have been examined empirically: systems training for emotional predictability and problem solving (STEPPS), cognitive analytic therapy (CAT), dialectical behavior therapy (DBT), and mentalization-based treatment (MBT).

Systems Training for Emotional Predictability and Problem Solving

STEPPS has been used and evaluated as a treatment for adults with borderline PD (Black, Blum, & Allen, 2017; Blum et al., 2008; Blum, Pfohl, John, Monahan, & Black, 2002). Developed as a systems approach, STEPPS is a manualized, cognitive-behavioral, skills-based treatment delivered in 20 group sessions (Blum et al., 2008; Blum, Bartels, St. John, & Pfohl, 2012). It is used as a supplement to a patient's concurrent treatment regimen, which might include individual therapy and/or medication.

One goal of STEPPS is to provide the patient, the treatment professional, closely allied friends, and family members with common language about the emotional dysregulation that characterizes the disorder and the skills used to manage it. Professionals, friends, and family members are referred to as part of the patient's "reinforcement team." Indeed, a specific feature of STEPPS is a concurrent group session for friends, parents, and caretakers to draw them closer to each other. The treatment is therefore designed so that the patient receives behavioral reinforcement for skills use from peers, family, and others rather than from a single therapist.

Treatment includes psychoeducation about illness and aims to teach patients emotion management, behavior management and basic skills (e.g., communicating, managing problems, sleeping, abuse avoidance, and relationship behaviors). Sessions are taught in structured format in a classroom-like setting. Patients are instructed

to work with a Skills Monitoring Card, the language of which is shared with reinforcement team members. The team members are asked to respond to the patient's needs in a consistent manner and help track patient progress in reducing symptomatic behavior. They attend at least one education session and additional sessions as desired. The reinforcement team members also receive a specific version of the Skills Monitoring Card that promotes consistency in interactions with the patient, particularly in times of crisis.

More recently, Blum and colleagues (2014) adapted and revised STEPPS for younger people, STEPPS-YP. This program is designed specifically for youth between ages 16 and 18 years who have already been diagnosed with borderline PD, or who are identified as having early signs of a possible future diagnosis. However, the program strives to be nonpathologizing, and implementation of STEPPS-YP does not require a formal diagnosis. Indeed, rather than label a young person with a borderline PD, the authors prefer to use the term "emotional intensity difficulties" (EIDs). Like STEPPS for adults, STEPPS-YP is provided in a group format. In STEPPS-YP, the number of sessions is shortened from the 20 in the traditional STEPPS model to 18, with two optional sessions. The program is divided into two 9-week sections that allow it to better fit with an academic year for students.

The analysis of STEPPS efficacy data is complicated by the fact that STEPPS is implemented as an adjunctive program (Blum et al., 2008). However, research from eight uncontrolled trials and two RCTs report significant reductions in borderline PD-related symptoms such as impulsivity, negative affectivity and relationship problems in adult community samples in the United States, the United Kingdom, the Netherlands, and Italy during the program period (Blum et al., 2008; Boccalon et al., 2012; Bos, van Wel, Appelo, & Verbraak, 2010; Harvey, Black, & Blum, 2010). The two RCTs concluded that a STEPPS plus treatment as usual (TAU) condition was more effective at reducing general and borderline symptoms than was TAU alone (Blum et al., 2008; Bos et al., 2010).

Two RCTs completed in the Netherlands have investigated a different adolescent adaptation of STEPPS for adult program, labeled "emotion regulation training" (ERT). Designed for adolescents displaying two or more borderline PD diagnostic criteria, ERT was adapted from STEPPS to be age-specific (Schuppert et al., 2009). Both the number of sessions (17) and the length of each (105 minutes) were shortened (Schuppert, Emmelkamp,

& Nauta, 2017). The language and material were made age-appropriate, and two specific topics regarding "knowing yourself" were added to address the developmental challenges and needs of an adolescent population. ERT also includes elements of DBT skills training as well as cognitive-behavioral therapy (CBT; Schuppert et al., 2017).

The effectiveness of ERT for adolescents was evaluated in two RCTs. In the first study, 43 adolescents ages 14–19 years were randomized to ERT plus TAU or to TAU alone. Results indicated a significant decrease in borderline PD symptoms in both groups after 6 months, with no additional effect of ERT over TAU with regard to mood regulation or borderline symptomatology; however, the ERT group showed an increase of the sense of an internal locus of control as compared to ERT plus TAU or TAU alone (Schuppert et al., 2009). In the second study, 109 adolescents with borderline traits (73% meeting the full criteria for borderline PD) were randomized to TAU or to ERT and TAU (Schuppert et al., 2012). Both groups improved equally on measures of symptom severity, and this study also found no significant differences between treatment conditions.

Cognitive Analytic Therapy

CAT is a short-term psychotherapy first developed by Anthony Ryle (1990) in the United Kingdom, with the goal of providing effective treatment for a wide range of psychological disorders within resource-limited environments. It is an integrative therapy based on both cognitive and psychoanalytic object relations models, and emphasizes collaborative work between therapist and patient to discover patterns of maladaptive behaviors in the patient and to develop strategies to modify these behaviors. Highly structured (although not manualized) and time-limited, CAT typically takes place over 8–24 weekly sessions, the exact number of which is agreed on before the therapy begins.

CAT is designed to be an active, cooperative, and goal-setting therapy. The goal of a therapist is to help patients discover their specific emotional, environmental, and cognitive histories that have established and maintained problem behaviors, or "faulty procedures." These maladaptive actions are seen to limit patients' ability to effectively respond to situations that cause distress. The therapist encourages conscious self-reflection and self-control by identifying, labeling and teaching skills, such as reformulating, recognizing, and revising target actions and behaviors. Therapist and patient typical-

ly use rating sheets and monitoring diaries to keep track of progress. Repeated practice and application of skills in practical situations are encouraged (Denman, 2001; Ryle & Kerr, 2002).

CAT is distinctive in its use of designated periods, or "stages," of work during the course of the therapy. During reformulation, which takes place during the first quarter of the therapeutic process, the therapist gathers information from the patient about current problems and past experiences. At the end of this period, the therapist writes a reformulation letter, listing problem behaviors the patient should address, and patient and therapist then agree to work on these behaviors. The recognition phase, the second quarter of the therapy, involves collaborative work in the production of diagrams or "sequential diagrammatic reformulations" that visually illustrate the maladaptive patterns of behavior. The second half of the therapy work involves the revision phase, during which therapist and patient collaborators identify alternative ways to stop problematic behaviors. At the end of the therapy, patient and therapist write each other "good-bye" letters, noting where the patient has achieved success and what "faulty procedures" still need to be addressed. After the agreed number of therapy sessions ends, several follow-up meetings might be scheduled (Denman, 2001; Ryle & Kerr, 2002).

Initially developed as a brief therapy for neurotic disorders, CAT has been recently used for treatment of PDs. However, in a 2014 meta-analysis, Calvert and Kellett (2014) indicated that while CAT is a popular intervention across a wide range of diagnostic groups, the evidence for its efficacy is limited with adult populations. They reported on 25 studies between 1960 and 2013 that met criteria to be included in their analysis. Of these, only five were RCTs, and the rest were uncontrolled. As well, less than 44% of these studies focused on treatment of borderline PD (Calvert & Kellett, 2014).

Currently, there is also a lack of RCTs on CAT for PDs in childhood and adolescence. One RCT compared CAT with a manualized good clinical care (Chanen et al., 2008). Seventy-eight participants between ages 13 and 18 years who met two to nine DSM-IV borderline PD criteria were enrolled in the study. The results indicated that while there were no significant differences between the two treatment groups on the main outcomes (psychopathology, NSSI and global functioning) at a 24-month follow-up, those in the CAT group improved more rapidly.

Dialectical Behavior Therapy

DBT, an empirically validated treatment originally designed to treat chronically suicidal and self-injurious adult women, was later conceptualized as a treatment for adults with borderline PD (Linehan, 1993). DBT holds that people with borderline PD have a biological dysfunction in their emotion regulation system and are raised in an invalidating environment. A previously described transaction between biological vulnerability and an invalidating environment may lead to the development of chronic emotion dysregulation, as in the process a person (1) fails to learn how to accurately label private experiences, trust his or her own experiences as valid responses to events, accurately express emotions, communicate pain effectively, use self-management to solve problems, and regulate emotions effectively, and instead (2) learns to respond with high negative arousal to failure, form unrealistic expectations, rely on external environment for cues on how to respond, actively self-invalidate, and oscillate between emotional inhibition and external responses.

DBT consists of four main components: individual therapy, group skills training, phone coaching, and a therapist consultation team. It is a structured intervention in which presenting problems are addressed in the order of a treatment target hierarchy. All therapeutic strategies fall on either acceptance (e.g., validation, reciprocity, mindfulness, and distress tolerance skills) or change sides (e.g., problem solving, irreverence, contingency management, emotion regulation, and interpersonal effectiveness skills). Finding a synthesis or integration of acceptance and change is the primary dialectic of DBT. Therapists have to incorporate and balance strategies from both sides during each session and also teach patients how to achieve synthesis. For example, patients have to accept themselves as they are and, at the same time, learn techniques to change the way they respond. A central tenet of DBT is that people are doing the best they can, and also must do better and try harder to improve their lives.

DBT has been adapted for adolescents (DBT-A) with borderline PD features including NSSI, suicidality, and emotional dysregulation (Klein & Miller, 2011; Miller, Rathus, & Linehan, 2007). Typically, the DBT-A treatment model includes a 6- to 12-month commitment of weekly individual sessions and multifamily group skills training. In skills training, members learn five sets of coping skills: core mindfulness, emotion regulation, dis-

tress tolerance, interpersonal effectiveness, and walking the middle path (i.e., dialectical thinking, contingency management, and validation techniques).

Rathus and Miller (2002) demonstrated significantly fewer hospitalizations and significantly higher rate of treatment completion in suicidal adolescents with borderline PD features after DBT treatment, as compared to TAU in a quasi-experimental investigation. A recent RCT of DBT-A compared its effectiveness with nonmanualized enhanced usual care (EUC) for adolescents with borderline PD with recent and repetitive NSSI (Mehlum et al., 2014). DBT-A was found superior to EUC in reducing NSSI, suicidal ideation, and depressive symptoms. A 1-year follow-up of this study revealed that over the follow-up period, DBT-A remained superior to EUC in reducing the frequency of NSSI. Both groups improved in terms of reduced suicidal ideation and depressive symptoms at 1 year, with more rapid recovery of these symptoms in the DBT-A group (Mehlum et al., 2016).

Perepletchikova and colleagues (2017) recently completed an RCT of DBT for preadolescent children (DBT-C) with disruptive mood dysregulation disorder (DMDD). DBT-C was found superior to TAU in decreasing symptoms associated with DMDD, such as severe tempter outbursts and angry/irritable mood. Although this study did not target pediatric PD, it demonstrated feasibility and initial efficacy of DBT with preadolescent children with severe emotional and behavioral problems, including suicidality and NSSI. Thus, DBT can potentially be useful for preadolescent children with borderline personality features. Further research is needed.

Mentalization-Based Therapy

MBT is a psychodynamically oriented form of psychotherapy that incorporates CBT to target the emotions and behaviors of borderline PD. Based on mentalization as a theory-of-mind construct introduced by French psychoanalysts in the 1960s, MBT was designed and manualized to treat adult borderline PD by Bateman and Fonagy (2004, 2016). MBT posits that individuals with borderline PD suffer from disorganized attachment; therefore, they have a weakened capacity to mentalize. Within MBT, *mentalization* is defined as a developmental process that takes place within a secure attachment and consists of parental communications that simultaneously indicate empath-

ic understanding of the child's mental states and a separateness from them. Such communications are purported to facilitate the child's ability to reflect upon, as well as experience, mental states. Mentalization is assumed to be essential for effective emotion regulation.

MBT works to teach those with borderline PD to differentiate and separate out their own thoughts and emotions from those around them. Recognizing that people with borderline PD tend to have highly unstable and intense relationships, MBT also targets the emotions that might cause those with borderline PD to unconsciously exploit and manipulate others. The concept of mentalization is emphasized, reinforced, and practiced within a safe and therapeutic environment, helping the person with borderline PD become more aware of the effects of his or her behavior on other people. Because the approach of MBT is psychodynamic, this therapy tends to be less directive than CBT or DBT.

Traditionally, MBT is delivered to patients twice a week, with sessions alternating between group and individual therapy. The goal is to enhance mentalization skills by monitoring and regulating emotional arousal. The therapeutic principle is "maintaining therapeutic closeness" between therapist and patient (Bateman & Fonagy, 2004). The therapist helps to accurately represent the current emotional state of the patient, with empathetic attunement to his or her changes in feelings. There is continual discussion of the patient's mental states in relation to the mental states of the therapist and others in the present (Goodman, 2014). The practice of mentalization is encouraged not only between therapist and patient but between members of the therapy group.

MBT has been adapted for adolescents (MBT-A; Bateman & Fonagy, 2004; Bleiberg, Rossouw, & Fonagy, 2012; Bo et al., 2017; Laurenssen et al., 2014; Rossouw & Fonagy, 2012). An RCT on a manualized MBT-A included 80 adolescents with NSSI and co-occurring depression (Rossouw & Fonagy, 2012). Intervention included weekly individual therapy sessions and monthly MBT-A family groups for a period of 1 year. Results indicated that MBT-A was more effective than TAU for reducing NSSI and depression. Researchers pointed to positive changes in mentalizing and improvement in interpersonal functioning as the mediating factors in reduction in NSSI (Rossouw & Fonagy, 2012). Laurenssen and colleagues (2014) evaluated outcomes of an inpatient MBT-A with borderline PD in a pilot study and reported

a decrease in general symptoms of psychological distress and improved personality functioning on self-report measures. The MBT-A in this study, delivered over a 12-month period, included individual, group, and family components (Laurenssen et al., 2014). The indicated improvement was notable given that implementation of MBT-A is regarded to be difficult, especially among inpatient populations (Hutsebaut, Bales, Busschbach, & Verheul, 2012; Laurenssen et al., 2014).

Bo and colleagues (2017) evaluated MBT-A delivered in group settings, theorizing that group therapy may be well suited for adolescent populations due to the heightened influence of peers during this developmental stage. Group-based MBT-A is delivered in a 1-year program, with two individual sessions followed by 34 group sessions. Additionally, caregivers receive seven psychoeducational sessions. Twenty-three out of 25 participants displayed significant improvement on self-report questionnaires, including those on borderline traits, depression, parent–child attachment, and frequency of self-harm.

Cluster A: Paranoid, Schizoid, and Schizotypal PDs

The Cluster A disorders are defined as the odd and eccentric PDs. Affected children often do not fit in and are targeted for bullying or exclusion among peers. Common hallmarks among the paranoid, schizoid, and schizotypal PDs are social deficits and isolation. Attwood (2007) points out that much of the odd behaviors and social limitations are similar to those seen in autism spectrum disorders, and posits that treatment for the Cluster A disorders can potentially derive from interventions for children on the spectrum. Much of this includes social skills training, instruction and practice on interacting with peers, as well as establishing and maintaining friendships (Attwood, 2000). The facilitation and encouragement of play and interaction with peers from both a child's parents and the school environment are also critical to treatment (Attwood, 2007). Gray (1994, 2004) has pioneered the use of various interactive exercises to increase the capacity for theory of mind, social understanding, and social skills in children with autism. These include comic strip conversations or Social Stories, in which children are able to break down social scenarios into more easily comprehensible parts by drawing, annotating, using thought bubbles, or labeling emotions. In addition, CBT with a focus on affective education has been shown to reduce the occurrence of mood

disorders in children with autism spectrum disorders, specifically Asperger's disorder as defined in DSM-IV (Bauminger, 2002). Due to the similarity in core social deficits between the Cluster A disorders and the autism spectrum, there is reason to believe that children with paranoid, schizoid, and schizotypal PDs may benefit from such treatments. Further research assessing the efficacy of such interventions is needed.

Cluster B: Antisocial, Borderline, Histrionic, and Narcissistic PDs

We outlined previously the empirically evaluated treatments for preadulthood borderline PD. Treatment recommendations and clinical acumen for the other Cluster B disorders are described in this section. It should be noted that among the PDs, antisocial PD is the only disorder that DSM-5 explicitly states may not be diagnosed before age 18 years. As we have discussed, there is a clear trajectory from ODD to CD to antisocial PD. Thus, the treatments of choice for antisocial PD features in children and adolescents may be those that target ODD and CD, such as parent management training (PMT) (Burke, 2007; Kazdin, 1997). PMT focuses on providing parents with adequate parenting skills so as to reinforce desirable behaviors and extinguish undesirable behaviors (aggression, stealing) and is based on the principles of contingency management and behaviorism (Kazdin, 1997). Indeed, positive parenting has been found to increase children's resilience toward reducing antisocial traits and symptoms (Werner, 2005). Another parenting training program that has shown efficacy in reducing externalizing behaviors typically seen in ODD and CD is parent–child interaction therapy (PCIT), which is typically used with younger children. PCIT relies on a therapist coaching the parent on positive interactions with a child through the use of a "bug in the ear" feedback system, while being observed through a one-way mirror (Eyberg, Boggs, & Algina, 1995; Eyberg & Robinson, 1982; McNeil & Hembree-Kigin, 2010). Studies that track the outcomes of youth who receive these therapies in adulthood would be helpful in determining whether antisocial PD rates indeed decline.

The development of histrionic PD is thought to be rooted in insecure attachment patterns that result from children's exposure to chronic family dysfunction. Crawford and Cohen (2007) suggest that parents be involved in treatment in order to model appropriate affect and work on changing in-

terpersonal processes displayed in the family. They suggest that clinicians determine when children feel insecure, help families identify dysfunctional coping patterns, and work with children and caregivers to model or reinforce adaptive emotion regulation strategies.

In narcissistic PD, Freeman (2007), highlights that treatment may only work if parents are sufficiently motivated to participate in treatment, so as to implement appropriate behavioral interventions at home and gain the requisite skills they need to alter narcissistic behavior of the child. When training parents, it is important to note that parental overindulgence and overvaluation of their children may lead to narcissistic traits (Brummelman et al., 2015; Freeman, 2007) rather than parental warmth or empathy. It is also suggested that a greater number of behavioral interventions (i.e., parental modeling, reinforcement of appropriate social behaviors, extinction of narcissistic displays) are required with a more severely narcissistic child, whereas more cognitive strategies may be used with a child with a lesser degree of narcissism (Freeman, 2007). Cognitive strategies include appropriate coping statements and self-talk, as in cognitive therapies for disorders such as anxiety and depression.

Cluster C: Avoidant, Dependent, and Obsessive–Compulsive PDs

The Cluster C disorders include the anxious or fearful PDs, typified by behavioral rigidity and excessive worry. Anxiety regarding rules and tidiness characterizes obsessive–compulsive PD, while excessive worry regarding social relationships characterizes avoidant or dependent PD. There has been little clinical research on these disorders in preadult populations.

Treatment for avoidant PD in children may be informed by interventions developed for the more extensively researched social anxiety disorder. In cases of social anxiety and excessive interpersonal avoidance, CBT has been shown to be most effective at reducing symptoms (Lee et al., 2017). CBT consists of cognitive restructuring, as well as a heavy focus on behavioral exposures to social situations, wherein participants learn that feared social outcomes (i.e., rejection and humiliation) are not as likely to occur as they may believe. This in turn allows corrective learning to take place. Research is needed to differentiate children with social phobia and avoidant PD, and whether those

with avoidant PD respond to CBT techniques (Robin at al., 2007).

Perhaps the most challenging PD to identify and treat in childhood, and to a lesser extent in adolescence, is dependent PD. It is not atypical for children to be dependent on others, submissive, or clingy. In fact, these behaviors may be adaptive, particularly in younger children. When these behaviors persist and are excessive, they can typify one with a dependent PD. The diagnosis is therefore difficult to make in early years, unless a youth's dependency and passivity interfere significantly with functioning (Bornstein et al., 2007). Bornstein (1996) has proposed a *cognitive/interactionist model of interpersonal dependency*, in which dependence is created by cognitive schemas that uphold one's helplessness. As we discussed earlier, one environmental factor that shapes and maintains such schemas is overprotective and authoritarian parenting practices (Bhogle, 1983; Gordon & Tegtmeyer, 1983). Conceptually, one can see how overprotective parenting would reinforce dependent cognitions and behaviors in children, and conversely how a dependent child may elicit authoritarian behaviors from caregivers (Bornstein et al., 2007). Thus, parent involvement and training may be critical in attenuating such overdependent symptoms in youth. Parents may be instructed to model and maintain appropriate boundaries with children, and allow them to make mistakes and learn on their own to foster independence. Unfortunately, there is a dearth of clinical outcome studies for dependent PD even in the adult literature and, of the very limited number of controlled studies on the subject, no treatments have demonstrated positive outcomes (Bornstein, 2005).

Obsessive–compulsive PD consists of a global rigidity of functioning that is defined by strict adherence to rules, striving for perfection, and preoccupation with details. As described earlier, these traits in youth may be reinforced by parents and teachers, and therefore not be identified as disordered until the symptoms become crippling. Furthermore, obsessive–compulsive PD, like narcissistic PD or antisocial PD, may not be seen as problematic in the person who has the diagnosis. Cognitive therapy may be particularly effective in treating these symptoms and to help identify and restructure problematic cognitions and schemas, so as to alter the consequent maladaptive behaviors (Franklin et al., 2007). Due to the ego-syntonic nature of symptoms, the therapeutic alli-

ance plays a key role in therapy (Beck et al., 2004). The clinician will need to attend to any damages to rapport that may be expected when working on perfectionistic cognitions. Furthermore, involvement of the parent or caregiver is a critical component in treatment, and these individuals are encouraged to model owning mistakes or not adhering to rigid rules (Franklin et al., 2007). The treatment modalities discussed earlier for the various PDs, along with summaries of related empirical findings and clinical considerations, are summarized in Table 21.1.

Discussion

A vast majority of children and adolescents with biological vulnerabilities do not develop PDs. Similarly, temperamentally resilient children who are exposed to a difficult environment, or vulnerable children who are in an environment that suits their needs, may not develop PDs. Environment is a key factor that may either ameliorate or exacerbate biological vulnerabilities. Psychotherapy of any pediatric psychiatric disorder cannot just concentrate on the child but has to include parents and focus on the parent–child relationship. This is imperative when disorders are a result of an acute stress, and it is particularly salient when disorders develop over time due to a chronic stress. As discussed earlier, the chronic stress that gives rise to pediatric PDs may be the mismatch between what children need as a result of their biological makeup and what parents are able to provide. Thus, it is not surprising that most interventions for PDs place great emphasis on engaging caregivers in treatment, improving parent–child relationship, and helping parents learn how to set limits to children's maladaptive behaviors while creating an accepting, empathic, and validating environment (e.g., Bleiberg, 2001; Reinecke & Freeman, 2007).

Most conceptualizations of PDs emphasize the critical importance of parent–child interactions in the development of the child's ability to accurately interpret his or her own responses and the responses of other people in terms of internal mental states. This ability has been given many different terms, depending on a treatment approach, including "mentalization" (Fonagy & Target, 1997), "reflective functioning" (Bleiberg, 2001), "theory of mind" (Baron-Cohen et al., 1994), and "interpersonal interpretive mechanism" (Fonagy, 2002). The development of reflective capacity is seen to be dependent on the parents' ability to accurately read the child's needs, match these needs with appropriate responses, and communicate that the child's feelings, thoughts and behaviors are meaningful and purposeful. This allows the child to register the association between, make sense of, and trust his or her own responses and parental responses.

This ability to "read minds" may be critical to the development of a coherent sense of self and self-regulation (Gergely & Watson, 1996, 1999), as well as learning how to operate within the social environments, adjust responses to situational demands, and form reciprocal relationships (Bleiberg, 2001). When a child is not able to read social cues accurately, understand internal states of self and others, and predict his or her own and others' responses, adaptation is greatly impaired and a personality disorder may ensue. Thus, most interventions for PDs, in one way or another, appear to target the patient's ability to understand and accurately interpret his or her own and others' internal mental states. The essential treatment tasks to achieve such a goal often include helping patients to (1) improve awareness of their own affective states, cognitions, and behaviors; (2) understand emotions, their functions, and expression; (3) verbalize and share affective experiences; (4) gain awareness of affective connectedness and differentiation from others; (5) understand the meaning of their own responses; (6) appreciate the intentionality of others' mental processes; (7) learn to adjust their own affective and behavioral responses depending on environmental demands; (8) achieve cognitive flexibility; (9) develop adaptive coping strategies; and (10) learn effective problem solving.

As we highlighted previously, treatment of PDs is treatment of an individual within a context. Human beings are organized by social experiences, and interventions for PDs have to be sensitive to cultural traditions and societal norms. This, of course, further complicates treatment development and evaluation, and it is not surprising that there is also a paucity of ethnically or culturally specific interventions for PDs.

Case Example

Lily, a 9-year-old white female, lives with her biological parents. She was referred for services after an inpatient hospitalization for her second suicide attempt (she attempted to drown herself in the

TABLE 21.1. Psychosocial Treatments for Childhood and Adolescent PDs

Treatment	Targeted PDs or correlates	Level of evidence	Clinical considerations and rationale
Cluster A			
Social skills training	• Paranoid PD • Schizoid PD • Schizotypal PD	Possibly efficacious	• Social skills training has been shown to help children with autism spectrum disorders (Bauminger, 2002), and similarity between autism spectrum and Cluster A PDs suggests that such an intervention may be helpful in their treatment. • Empirical data supporting such interventions with Cluster A PDs are needed.
Cluster B			
Parent management training (PMT) (Burke, 2007; Kazdin, 1997)	Precursor symptoms of antisocial PD (ODD, CD)	Probably efficacious	• Efficacious in reducing externalizing behavior in children with ODD and CD.
Parent–child interaction therapy (PCIT; Eyberg, Boggs, & Algina, 1995)	Precursor symptoms of antisocial PD (ODD, CD)	Probably efficacious	• Efficacious in reducing externalizing behavior in young children with ODD CD.
Systems Training for Emotional Predictability and Problem Solving for Younger People (STEPPS-YP; Blum et al., 2014)	Borderline PD	Possibly efficacious	• Used as an adjunctive group therapy. • Although evidence supports the use of STEPPS with adult populations, there is a lack of research examining the efficacy of STEPPS-YP.
Emotion regulation training (ERT; Schuppert et al., 2009)	Borderline PD	Possibly efficacious	• Adjunctive group therapy also adapted from STEPPS, developed and used primarily in the Netherlands. • RCT evidence shows no significant difference in reduction of borderline PD symptoms between ERT and treatment as usual (TAU) (Schuppert et al., 2009, 2012).
Cognitive analytic therapy (CAT; Ryle, 1990)	Borderline PD	Possibly efficacious	• Relatively brief nonmanualized therapy, developed for treatment of neurotic disorders. • Lack of research using CAT to treat borderline PD, particularly with youth (Calvert & Kellett, 2014).

			• RCT of CAT versus a comparison treatment with adolescents with borderline symptoms has shown no significant difference between conditions (Chanen et al., 2008).
Dialectical behavior therapy for adolescents (DBT-A; Miller, Rathus, & Linehan, 2007)	Borderline PD	Probably efficacious	• Six- to 12-month treatment program involving both individual and multifamily group therapy modalities. • RCT shows robust results suggesting that DBT-A is superior to comparison treatments at reducing nonsuicidal self-injury (NSSI), suicidal ideation among teens with borderline PD (Mehlum et al., 2014, 2016). • Results have not yet been replicated across multiple RCTs.
Dialectical behavior therapy for preadolescent children (DBT-C; Perepletchikova et al., 2011)	Children with borderline PD features; disruptive mood dysregulation disorder (DMDD)	Possibly efficacious	• Individual therapy, parent training, and coping skills training components included in the program lasting approximately 32 weeks.
Mentalization-based therapy for adolescents (MBT-A; Rossouw & Fonagy, 2012)	Borderline PD	Probably efficacious	• MBT-A has been adapted and studied in both inpatient and outpatient settings, in both group and individual formats. • Treatment typically lasts 1 year. • Evidence has shown significant reductions in the frequency of NSSI and depression in comparison to TAU (Rossouw & Fonagy, 2012).
Cluster C			
Cognitive-behavioral therapy (CBT)	Avoidant PD	Possibly efficacious	• Focus is on cognitive restructuring, as well as behavioral exposures to social situations. • Well-established treatment for social anxiety in youth (Lee et al., 2017) but not for avoidant PD. • Lack of research on children diagnosed with avoidant PD as opposed to social anxiety disorder.
Cognitive therapy	Obsessive–compulsive PD	Efficacy not established	• No evidence base currently examining treatment efficacy with youth diagnosed with obsessive–compulsive PD.

bathtub). Her parents reported that, since an early age, the child had been irritable and frequently had temper outbursts. Starting at around age 5, Lily would hit her head with her fists when frustrated, sometimes leaving marks. At age 7 years, Lily began to scratch her arms with nails, voice suicidal ideation (e.g., "I wish I was never born"), and threaten suicide (e.g., "I want to kill myself!"). Lily has been in outpatient treatment since age 5 for oppositional behavior, at which time she was diagnosed with ODD. One prior psychiatric inpatient hospitalization was reported at age 7 for severe physical aggression against her mother. Her first suicide attempt occurred when she was 8 (ingested 5,000 mg of Tylenol). Lily's parents did not take her to an emergency department at that time, as they thought that the dose did not pose a significant health risk.

At the time of the initial assessment, both Lily and her parents reported that she had daily verbal outbursts (e.g., screaming, swearing, threatening) and physical aggression (pushing, kicking, punching, throwing objects). The temper outbursts would occur in multiple settings, including at home, in public (e.g., in stores), at school, and with peers. Lily's physical aggression was typically directed at her mother, but it also occurred with peers. Lily reported suicidal ideation at least once per week and engaged in NSSI three times per week. NSSI included scratching her arms with nails and cutting her skin with glass or razors, including the inside of her thighs. Furthermore, Lily and her parents indicated that the she had significant interpersonal difficulties. She was frequently rejected by peers, never had close friends, and had conflicts with parents and teachers. It was also noted that Lily had high emotional sensitivity (i.e., high reactivity, high intensity, slow to return to baseline); low tolerance for delayed gratification, transitions, and change; was easily bored and required constant stimulation; had rapidly shifting attention and an extreme thinking style (e.g., black-and-white thinking, catastrophizing); tended to ruminate and get stuck; had low self-esteem, vacillating between self-deprecation and self-aggrandizement; and displayed impulsive behaviors (including infrequent nonaggressive stealing). Lily also had significant problems with separation from parents and vacillated between attempts to bond and intense rage. Lily was diagnosed with disruptive mood dysregulation disorder, separation anxiety disorder, and attention-deficit/hyperactivity disorder (ADHD) inattentive type.

Although Lily was not given a diagnosis of borderline PD at the time of admission to treatment, she exhibited persistent problems in six out of nine symptom domains for borderline PD: (1) fear of abandonment, (2) unstable relationships, (3) unstable self-image, (4) self-destructive behaviors, (5) extreme emotional swings, and (6) difficulty controlling anger. The diagnosis of PD was not yet warranted given that the fear of abandonment, unstable self-image, and difficulty controlling anger were also expressions of her developmental level. Yet persistent suicidal ideation, several suicide attempts, frequent NSSI, and severe affective instability were indicative of an enduring, rather than acute, pattern of maladaptive relating, coping, feeling, and thinking. Thus, the clinical picture was pointing to a budding PD.

Lily and her family were treated with DBT for preadolescent children (DBT-C) in weekly, 90-minute sessions, roughly divided between individual counseling with Lily (30 minutes), a parent training component (20 minutes), and skills training with Lily and her parents (40 minutes). DBT-C is a family-oriented approach, in which parental involvement, participation, and commitment to treatment are required, while the child's commitment is encouraged. The biosocial model of DBT postulates that the emotional dysregulation develops within a transaction between the child's inborn emotional vulnerability and an invalidating environment. DBT-C aims to stop the harmful transaction between the child and an environment, and to replace it with an adaptive pattern of responding, primarily by targeting the invalidating environment. Thus, the child's participation is seen as secondary to parental engagement.

In DBT-C, parental emotional regulation and ability to accept, validate, and create a change-ready environment are prioritized. Parental functioning is closely assessed and monitored throughout treatment. At the beginning of treatment, Lily's parents exhibited the following responses that interfered with effective parenting: (1) modeling of dysfunctional behaviors (e.g., yelling at the child, screaming at each other, threatening); (2) excessive and inappropriate use of punishment (e.g., multiple daily removal of privileges for verbal outbursts, infrequent physical punishment); (3) use of shaming (e.g., "You are such a drama queen! Just stop it! You are acting like a baby!"); (4) criticism and judgments; (5) low tolerance of escalation (e.g., difficulty ignoring irritating or inappropriate behaviors); (6) rigidity, perfectionism, and black-and-white thinking (e.g., "We only

accept the best out of our daughter"); (7) multiple "shoulds" about the child (e.g., "My child should do what I say right away," "My child should be great at playing tennis"); (8) low reliance on reinforcement (e.g., only significant progress was praised, while daily positive behaviors were treated as "shoulds" and not acknowledged); (9) pervasive accommodation (e.g., low limit setting in attempt to avoid temper outbursts); and (10) a "my child is a problem, not me" stance.

As noted, DBT-C is a family-oriented approach. Thus, to address the needs of a family as a unit, the DBT-C treatment target hierarchy has been extended from four main targets of DBT for adults and adolescents (i.e., life-threatening behaviors, therapy-interfering behaviors, quality-of-life interfering behaviors, and skills training). The DBT-C model includes three main targets (i.e., decrease risk of psychopathology in the future, improve parent–child relationship, and target presenting problems), subdivided into 10 subcategories, as specified below. Furthermore, while a part of DBT adult and adolescent models, hierarchy is primarily meant for therapists to use during treatment, but in DBT-C it is shared with parents to follow in and outside of sessions. Within the hierarchy, there were treatment targets for Lily and her family.

Decreasing the Risk of Psychopathology in Adolescence and Adulthood

1. *Life-threatening behaviors of the child.* Lily's suicidal ideation and NSSI were monitored via diary card and addressed in individual sessions. Safety plans were developed with parents and closely monitored by the therapist. Lily was reinforced via a point system to use coping skills instead of NSSI.

2. *Therapy-destroying behaviors of the child.* In DBT-C, "therapy-destroying behaviors" refer to the child's responses that prevent a therapist and/or parents from safely implementing needed strategies, including behaviors that threaten the safety of the child, other people, or property. From the beginning of treatment, Lily was motivated to change and engaged in therapy, which decreased the risk of such responses. Furthermore, preventive measures were implemented, including development of a strong therapist–child relationship, creation of a validating environment, and reinforcement of treatment engagement (e.g., praise, tangible rewards).

3. *Therapy-interfering behaviors of the parents.* In DBT-C, parental behaviors such as missing sessions, frequently rescheduling, failing to follow agreed-upon treatment plans, and so forth, are treated as therapy-interfering behaviors. Lily's parents had attended sessions consistently. However, they initially had difficulty with following the therapist's recommendations, including practicing their own emotion regulation skills, conducting daily practice of skills with Lily, helping Lily with completing diary card, and consistently recording earned points on the point chart. These issues were addressed during the parent training portion of sessions.

4. *Parental emotion regulation.* The child's self-regulation cannot be expected in a dysregulated environment. Lily's parents had difficulty maintaining self-control and tolerating escalation. To promote change, Lily's parents had to replace their mood-dependent behaviors (e.g., retaliating with punishment for swearing) with target-relevant responding (e.g., ignoring swearing to preclude reinforcement with attention). Without learning and practicing emotion regulation techniques, parents are not likely to model effective coping and problem solving, ignore maladaptive responses, validate their child's suffering, reinforce desirable behaviors, and so forth. In the DBT-C model, the first several weeks of treatment are conducted with parents alone to build the needed foundation to start the child's therapy. Thus, Lily's parents were taught select coping skills ahead of the initiation of treatment with Lily. During the rest of the treatment, further techniques were introduced, and parental emotion regulation was treated as a higher priority than the child's emotion regulation.

5. *Effective parenting techniques.* Lily's parents' use of ineffective parenting techniques (e.g., screaming, threatening, frequent inappropriate punishment, shaming) greatly exacerbated the problems with Lily's emotional regulation and behavior. At the beginning of treatment, Lily's parents were provided psychoeducation about the effects of parenting techniques on the child's development and were taught methods to help promote and support Lily's progress (e.g., modeling acceptance and adaptive behaviors, validating Lily's suffering, reinforcing skills use, using ignoring and punishment appropriately). Lily's parents were then instructed in principles of behavior modification and validation, and dialectics of parenting. In DBT-C, a large portion of the treatment is devoted to teaching validation. DBT-C sees parental

ability to replace a critical and judgmental stance with validation as one of the main ingredients of change. Furthermore, Lily's parents tended to accommodate their child in an effort to prevent outbursts. Such practice was addressed by helping her parents set appropriate limits. Parental ability to create and maintain an accepting, validating, and change-ready environment was closely monitored and refined throughout therapy.

Targeting the Parent–Child Relationship

6. *Improve the parent–child relationship.* Pervasive negative transactions strain the parent–child relationships, leaving everyone feeling overwhelmed, hurt, and resentful. When a parent–child relationship is strained, parents have to be prepared to change their behaviors first, if they want to improve their child's functioning. During therapy, the therapist placed great emphasis on helping Lily's parents build a relationship with their child that was based on acceptance, reinforcement, shared interests, and mutual respect. This was critical to help instill in Lily a sense of self-love, safety and belonging. Furthermore, the therapist paid close attention to increasing Lily's desire to spend time with her parents. This provided her parents with more opportunities to model adaptive coping and prompt effective responding, and to provide validation and reinforcement.

Targeting the Child's Presenting Problems

7. *Risky, unsafe, and aggressive behaviors of the child.* Although DBT-C relies heavily on validation, reinforcement, and ignoring, punishment is still used, but only when a short-term outcome (e.g., ensuring the child's safety) is prioritized over long-term gains (e.g., modeling skillful conflict resolution). Lily's physical aggression was targeted by using punishment to suppress unsafe behaviors in the moment (e.g., a time-out procedure) and reinforcement of positive opposite behaviors (e.g., using coping skills instead of hitting).

8. *Quality-of-life-interfering behaviors of the child.* Lily's quality-of-life-interfering behaviors included comorbid disorders (separation anxiety disorder and ADHD), verbal aggression, talking back, severe interpersonal difficulties, issues with delayed gratification and impulse control (e.g., stealing, lying), and school problems (school refusal, difficulty doing homework). Reinforcement and a shaping program were developed to address these issues.

9. *Skills training.* Helping parents create an accepting, validating and change-ready environment serves as a foundation for skills building. Lily and her parents received training in five modules: didactics on emotions, mindfulness, distress tolerance, emotion regulation, and interpersonal effectiveness. Parents were also asked to practice skills with their child in hypothetical situations via role plays (practice "in pretend mode") several times per day. Failure to do this is treated as a therapy-interfering behavior of parents. Daily skills practice "in pretend mode" is seen as one of the main mechanisms of change, as it helps establish adaptive behaviors through multiple repetitions. Skills use "in real mode" in actual problematic situation and skills practice "in pretend mode" were monitored via the diary card. During individual sessions, Lily learned how to apply learned skills to everyday problems, along with discussing specific concerns; learning effective problem solving; developing self-management skills; and participating in behavioral analyses, exposures, and cognitive restructuring.

10. *Therapy-interfering behaviors of the child.* DBT-C is very tolerant of children's problematic behaviors that occur in sessions (except for physical aggression or destructive behaviors, which are treated as therapy-destroying behaviors). Lily's verbal aggression, threats, cursing, screaming, devaluing treatment as a waste of time, and other distracting behaviors during treatment sessions were ignored and targeted by reinforcement for engagement in session and shaping programs. Furthermore, her maladaptive behaviors during sessions were treated as informative of parent–child interactions and target-relevant. These behaviors allowed the therapist the opportunity to model skills use, ignoring, and problem solving for the family and to further refine parental ability to use effective parenting skills.

DBT-C highlights function over form, and emphasizes adherence to DBT principles and strategies. The implementation of treatment components depends on a family's needs. For example, skills training is usually conducted with children and parents together. However, separate training is usually done when a parent–child relationship is severely ruptured and the child's reactivity to parental presence interferes with learning (until the relationship sufficiently improves to allow for joint

sessions). DBT-C favors experiential exercises, games, role plays, and the use of multimedia (e.g., clips from cartoons) over didactic presentations and lengthy intellectual discussions. The completion of treatment does not depend primarily on the level of the child's functioning. Usually, emotional sensitivity, and especially character pathology, cannot be resolved within a time-limited intensive psychotherapy. However, children may not require active treatment for years if their parents are able to continue implementing techniques. In a way, one of the main goals of DBT-C is to train parents to become therapists for their child. Treatment is completed when parents are able to establish and maintain a validating and change-ready environment, and the implementation of techniques becomes a routine (for more information on the DBT-C model, see Perepletchikova, 2018; Perepletchikova & Goodman, 2014; Perepletchikova et al., 2011).

Conclusion

Although the field of pediatric and adolescent PD research has come a long way, it still has a long way to go. There is increasing momentum in recent years to shift PDs from a categorical model to a dimensional one, as is foreshadowed in the DSM-5 Section III, and the RDoC classification system. Resolution of these issues may facilitate research on the etiology and development of PDs, which may in turn facilitate treatment development and evaluation. It is no coincidence that the PD with the most comprehensive understanding of etiology, borderline PD, also has the most empirically supported therapies.

The treatment of chronic, severe, and often ego-syntonic disorders as seen in PDs will always be inherently difficult no matter the age, but particularly with adolescents and children. There is a reluctance among practitioners to label youth with PDs, and there are few clinical resources to assess PDs accurately. Yet research suggests that PDs can be identified in children and adolescents, and should be treated as early as possible to intervene before personality crystallizes. The developing and changing nature of child's personality presents clinicians with a dilemma for diagnosis, as well as opportunities for treatment. There is a wide disparity in symptom presentation both between and within PDs. Still, there are promising leads from experts in the field to inform clinical research. With time and effort, we hope that all of the PDs will experience the sort of a research boom that has occurred with borderline PD in the last 30 years.

As with most child treatments, we expect much of the clinical research to begin with treatments and modalities used with adult populations. However, the importance of parent involvement and training in the treatment of youth PDs is clear and has to be incorporated within any treatment for pediatric disorders. As noted, PDs may be a result of a transaction between environmental and biological factors. With younger populations, as opposed to adults, clinicians can directly intervene within the environment and alter maladaptive transactions that may contribute to the development and exacerbation of PD symptoms. Perhaps the most effective route to preventing or ameliorating PD dysfunction in youth is to foster effective parenting practices and help parents understand and meet the needs of their children.

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