



Parenting in Patients with Borderline Personality Disorder, Sequelae for the Offspring and Approaches to Treatment and Prevention

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Abstract

Purpose of Review We review recent findings concerning the implications of borderline personality disorder (BPD) on parenting behaviors, the parent-child relationships, and parental and child outcomes. We focus on self-report and interview data characterizing parents with BPD and their children as well as on observational paradigms investigating parent-child relationships and the quality of dyadic interactions. Novel treatment approaches are discussed.

Recent Findings Parents with BPD suffer from increased parenting stress and display characteristic behavioral patterns towards their children, impeding the formation of a healthy parent-child relationship and disrupting offspring emotional development. Offspring are at greater risk of maltreatment and developing BPD themselves, with parental affective instability playing a substantial mediating role.

Summary Mothers with BPD face a meaningful burden in their parenting role. Mechanisms of the transmission of BPD pathology onto the following generation are beginning to be understood. Targeted interventions have been devised recently, with preliminary testing producing encouraging results.

Keywords BPD · Parenting · Abuse · Parent-child relationship · Transgenerational transmission · Targeted psychotherapy

Introduction

Borderline personality disorder (BPD) is a severe mental condition with a lifetime prevalence of up to 5.9% within the U.S. general population [1]. It is characterized by impairments in various fields of behavior and emotion processing, including emotion dysregulation, intense and unstable interpersonal relationships, proneness to anger, recurring suicidal behavior, and cognitive peculiarities [2]. Seventy-five percent of patients diagnosed with BPD are female [3], and in many cases the most severe phase of the disorder occurs during the child-bearing years [4]. At the same time, treatments for BPD do not focus on parenting-related issues. Thus, parenting needs to be

addressed in order to improve outcomes both for parents with BPD and their offspring and to reduce the risk of child maltreatment and intergenerational transmission of abuse [5].

Behaviors characteristic of BPD that are potentially problematic for parenting include a tendency for intense but unstable and volatile relationships, rejection hypersensitivity, interpersonal hostility, inferior self-worth, and lack of trust [1]. Additionally, patients diagnosed with BPD often show reduced empathy [2] and difficulties in understanding other people's emotions [6], possibly including those of their own offspring. These behaviors contrast with healthy and effective parenting behavior, which requires multiple qualities and abilities. These include emotional and physical availability and support, sensitivity, understanding and validating the mental state behind a child's behavior, and contingency in parenting behaviors.

The body of data on parenting in BPD has been growing recently, with three systematic reviews published in the past few years [7, 8, 9•]. Children of mothers with a diagnosis of BPD have been reported to be at greater risk of developing BPD themselves, with dysfunctional parenting being a major risk factor [7]. Mothers with BPD have been found to be in increased need of assistance, likely even when compared with

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mothers with other psychiatric disorders [8•]. Early interventions might present an opportunity for prevention of maladaptive development trajectories within the dyad [9••].

The purpose of this article is threefold. First, we aim to give an overview of current evidence of characteristic deficits of parenting behaviors in individuals with a diagnosis of BPD or sub-threshold BPD traits and symptoms. Second, we highlight current findings on the psychological and psychopathological consequences of parenting behaviors and dyadic interactions for offspring of parents with BPD. Finally, we discuss recent developments in options for prevention and treatment.

Self-report and Interview Data on Parenting Behavior

An increasing number of studies based on self-report measures provide insight into how individuals with BPD experience themselves in their roles as parents and what particular challenges they face in caring for their children. Questionnaire data suggested that mothers with BPD feel less competent [10] and report lower levels of perceived self-efficacy [11••] in their roles as parents. Compared to healthy control mothers, they perceive the parenting of their infants (2- to 14-month-old infants in this study) to be more stressful, less rewarding [10, 11••], and to have a weaker impact on their infants' behaviors and emotions [11••]. These factors were found to correlate with the level of emotional dysregulation as measured with the Structured Clinical Interview for DSM IV Axis II Disorders (SCID-II), while parental hostile behavior and over-protection significantly correlated with total BPD symptom severity [11••].

Mothers with a diagnosis of BPD also were shown to be more likely to feel insecure, preoccupied, and unresolved in relationships with their 4- to 7-year-old children [12]. Severity of unresolvedness and preoccupation correlated with BPD symptom level in these women [12]. Parents with BPD also displayed higher rates of negative affectivity like fear and frustration as well as lower effortful control/higher impulsivity than healthy control subjects [13]. This deficient effortful control subsumed the following sub-domains: inhibitory control (ability to resist urges and impulses), attentional control (ability to focus and maintain attention), and activation control (ability to duly start tasks) [13]. Other studies did not apply structured diagnostic interviews but were instead based on clinical diagnoses of BPD or BPD traits. Nonetheless, these studies yielded very similar results: self-report questionnaires highlight significantly higher parenting-related stress levels in mothers with BPD with children of 9 months to 4.5 years and 0 to 6 years [14•, 15•] as well as elevated levels of psychological distress and depressive symptoms [15•].

Notably, offspring of mothers with BPD already exhibit behavioral patterns in early childhood similar to those of their

mothers. Correspondingly, measures of negative affectivity and low effortful control correlated between mothers diagnosed with BPD and those of their children, as determined by parent report scales (Child Behavior Questionnaire, CBQ), teacher report scales (Child Teacher Report Form, C-TRF), and children's narratives during a story completion task [13]. Furthermore, mothers' level of BPD symptoms correlated with their offspring's disruptions in attachment (i.e., fear of abandonment, role reversal), self-image, and self-regulation, as indicated by the narrative representations of these domains [12]. These findings suggest that interpersonal difficulties typical of BPD, such as fear of abandonment and emotional instability, extend into the parent-child relationship and might facilitate the transgenerational transmission of BPD and BPD traits.

In population-based association studies of parents with BPD features assessed on the SCID-II, correlations between high BPD trait levels in mothers and behavioral dysfunctions in their offspring have been observed [16, 17]. In a study of 251 mothers with children aged 2.5 years, the effect of maternal depressive symptoms and borderline traits on child problem behaviors was analyzed [16]. The authors found that the mothers' depressive symptoms were able to predict children's externalizing, internalizing, and total problem behaviors; however, this predictive effect of maternal depressive symptoms was no longer significant when introducing BPD traits into the model, leading them to conclude that maternal depression might be the wrong focus for preventative action [16]. Likewise, Kaufmann and colleagues (2017) [17] identified a direct effect of mothers' BPD symptoms on their 9.5- to 13.5-year-old offspring's internalizing, externalizing, and total behavioral symptoms [17]. Children's emotion regulation difficulties (as examined on the Difficulties in Emotion Regulation Scale, DERS) were identified as a mediator of this association [17]. In particular, children's externalizing symptoms were positively associated with offspring's emotion regulation difficulties and maternal BPD traits.

These findings are reinforced by another large population-based study of 1598 mothers and their daughters ages 15 to 17 years, with 8% of the mothers included in this sample presenting clinically significant BPD traits in the International Personality Disorder Examination (IPDE) [18••]. Mothers' BPD symptom scores were associated with maladaptive parenting behaviors like psychological control, specifically control through inducing feelings of guilt, and behavioral control, namely harsh punishment. Further analysis and inclusion of maternal depressive symptoms, maternal alcohol use, and child temperament suggested that maternal affective/emotional dysregulation alone could predict these maladaptive parenting behaviors [18••]. Similarly, when confronted with their 12- to 23-month-old children's negative emotions, mothers with high BPD traits more often displayed punitive (e.g., intolerant or impatient) and minimizing (e.g., trivializing) invalidating parenting behaviors towards their

young infants [19•]. While high BPD trait levels in mothers predicted high maternal emotion regulation difficulties, increased maternal emotion regulation difficulties alone predicted punitive and minimizing parenting in this study [19•]. The problem may be further aggravated by the observation that mothers with high BPD symptom levels and unsupportive parenting strategies viewed their infants as more angry, suggesting a negativity bias of mothers' perceptions of their infant's emotional expressions [19•].

Notably, BPD in parents has been shown to be associated with a greater risk of child maltreatment, with parental emotional regulation difficulties being a mediator of this association [20, 21]. The potential for child maltreatment further increased with more severe child problem behaviors [21]. Hiraoka and colleagues [20] reported that one third of parents with increased child abuse risk had an elevated BPD trait score of 7 or higher on the McLean Screening Instrument for Borderline Personality Disorder (MSI-BPD). Of note, all of the parents with elevated BPD features in the analyzed sample displayed a high child abuse potential as assessed with the Child Abuse Potential Inventory (CAP) [20]. Mothers diagnosed with BPD also reported more interpersonal problems and difficulties with their romantic partners and social support systems [22•], all of which are likely to set the stage for adverse conditions to raise a child. Adolescent children ages 14 to 18 years of mothers with BPD also were reported to experience maltreatment by their mothers significantly more often than offspring of healthy controls, namely physical and emotional abuse as well as neglect [22•]. In this study, the number of different forms of abuse as well as their severity correlated with adolescents' total borderline traits evaluated on the PAI-borderline feature scales [22•]. Furthermore, a history of childhood adversity in the parents, especially in the fathers, was found to be associated with adolescents' BPD pathology at the age of 14 to 17 years, mediated by parents' subclinical BPD features [23•]. In conclusion, the fundamental role of childhood adversity and maltreatment in the development of BPD and its intergenerational transmission should not be underestimated.

In sum, self-report and interview data show that parenting poses a substantial burden for mothers with BPD. They are more likely to exhibit dysfunctional parenting behaviors, abuse, and neglect, and their typical parental style negatively impacts children's behavior and development. Children, in turn, express similar behavioral and emotional patterns as their mothers, indicating a significant risk of a transgenerational transmission of BPD or BPD symptoms.

Observational Paradigm Studies

Due to their quasi-experimental nature, high ecological validity, and higher objectivity, studies that apply observational

paradigms, such as videotaped free play or problem solving tasks, are of special interest for this review. BPD traits or diagnoses are associated with maladaptive parenting behaviors. These behaviors include low sensitivity and increased hostility towards the child, less support for a child's autonomy, fearful and disoriented behavior, and parent-child role-reversal, as could be observed and coded in a video-taped problem solving paradigm where mother and child had to solve a puzzle [24]. This observation not only is true for mothers with a manifest clinical diagnosis of BPD but also for mothers with dimensionally assessed subthreshold BPD traits with 4- to 7-year-old children [24]. On the side of the child, the development of a relationship based on autonomy and relatedness is hindered, leading in turn to fear of abandonment. Correspondingly, preoccupied and unresolved parenting behavior was found to be associated with fear of abandonment in 4- to 7-year-old children of mothers with BPD, mediated by the observer-coded quality of parenting behaviors [12].

These findings seem to apply not only to mothers with young children but also to mothers with adolescent children. In video-taped problem solving tasks, BPD mothers of 14- to 17-year-old adolescents were less likely to display parenting behaviors that promote relatedness and bonding but rather those that inhibit autonomy [25•]. These parenting behaviors were shown to correlate with adolescents' externalizing and internalizing symptoms as well as their total borderline features, and this correlation was mediated by the mother's total BPD symptoms [25•]. In addition, free play experiments of mother-child dyads indicated that a hostile emotional availability pattern in BPD mothers mediated the association between the mother's BPD symptoms and her 5- to 12-year-old child's higher risk of developing internalizing and externalizing behaviors and psychiatric disorders in general [26]. This study applied the Emotional Availability Scales (EAS, [27]), which coded maternal sensitivity, structuring, nonhostility, and nonintrusiveness based on filmed interactions as basic characteristics of mothers' parenting behaviors.

In mother-child dyads with low emotional availability patterns (assessed with the EAS during a 10-min story-telling interaction task), children ages 4 to 7 years displayed more risk factors for BPD, experienced more significant parent-child role-reversal, and endured more maltreatment, compared to mother-child dyads with high emotional availability patterns [28]. The same effect was observed in dyads with asynchronous emotional availability patterns, where emotional availability in the mother and the child did not match, i.e., where the mother was highly emotionally available but the child was not [28]. These findings highlight the role of impaired emotional availability and parent-child role-reversal, both of which are likely factors in the transmission of BPD or at least of psychopathology.

Reasons for these maladaptive parenting strategies and behaviors in mothers with BPD seem to include greater

difficulties in interpreting the mental states, intentions [29••], and emotional states [11••] of their offspring, as found in studies of dyads with infants of 12 months and 3 to 14 months in comparison to healthy control mothers. Thus, deficient theory of mind capabilities in mothers with BPD tend to result in misunderstandings and inconsistencies in the parent-child interaction. While mothers with BPD did not differ from healthy controls in recognizing their own or a foreign infant's facial emotions, they more often misinterpreted infants' neutral facial expressions as sad [11••]. This observation suggests a negativity bias for the mother's perception of her offspring's emotions [11••]. Likewise, in a population-based study by Kiel and colleagues [19•] of parents with borderline traits assessed on the Borderline Evaluation of Severity over Time (BEST) scale, it was shown that mothers with high BPD traits perceived their 12- to 23-month-old infants as displaying more negative emotions—especially anger—than could be objectified during two fear and two anger eliciting videotaped episodes of the Laboratory Temperament Assessment Battery (Lab-TAB) [19•].

There is also evidence from observational studies that parenting characteristics of mothers with BPD have a negative effect on infant development. In comparison with healthy controls, 3-month-old children of mothers with BPD displayed fewer spontaneous positive vocalizations and more non-autonomic self-regulation behaviors, such as self-clasping, when confronted with unknown and distressing situations [30••], such as Tronick's still face paradigm¹ [31]. The increased incidence of non-autonomic self-regulation was hypothesized to be an expression of the mothers' failure to co-regulate their children [30••]. Consistent with this hypothesis, infants of mothers with BPD gazed less at their socially detached mothers, who showed more intrusive behavior subsequent to the distressing episode and failed to successfully reunify with their children [30••].

According to these findings, children of mothers with BPD are more dependent on self-regulatory behaviors to stabilize their affect. However, in a study by Whalen and colleagues [32], offspring ages 12 to 23 months of mothers with high BPD symptom levels displayed more extreme expressions of anger and fear during anger- and fear-eliciting Lab-TAB episodes, being either of very intense or of very low intensity [32]. Notably, high affect intensity as an indicator for emotion regulation difficulties in children was associated with maternal behavioral dysfunction in mothers with high BPD trait levels [32]. This interpretation is consistent with the findings of Gratz and colleagues [33], who reported that infants at the age of 12 to 23 months with insecure-avoidant attachment patterns and

mothers with high BPD symptom levels showed deficits in self-focused emotion regulation behaviors during Lab-TAB episodes. In addition, the co-occurrence of similar behaviors in both partners of the mother-child dyad in this study was shown to be mediated by mothers' emotion regulation difficulties [33]. Accordingly, mothers' emotion regulation difficulties were associated with elevated expressions of anger in infants with insecure-resistant attachment patterns [33].

These results suggest that the development of self-regulation strategies in infants of mothers with BPD is critically disturbed. This disturbance also applies to adolescent offspring of mothers with BPD: Frankel-Waldheter and colleagues [25•] found that the development of self-regulation strategies in 14- to 17-year-old adolescent offspring of mothers with BPD was significantly disrupted. They went on to conclude that dysfunctional parenting strategies may hinder the development of adolescents by impeding emotional attachment and individuality, increasing the risk of trans-generational transmission of BPD traits [25•]. In line with these findings, Mahan and colleagues [34•] discovered that not only a categorical diagnosis of BPD but also subthreshold BPD traits in mothers are associated with more psychological control (coded with an adapted version of the Relationship Problem Inventory, RPI [34•], during videotaped problem solving tasks) in relationships with their 14- to 18-year-old adolescent offspring [34•]. Furthermore, maternal BPD traits were found to be correlated with the degree of affective instability observed in their children [34•]. An indirect effect of parental affective instability on the association between maternal psychological control and adolescents' affective instability was also described [34•], underlining the substantial effect of parental affective instability on parenting and possible ways of its transmission.

In sum, observational paradigms indicate that mothers with BPD express less emotionally supportive behavioral patterns towards their children, displaying greater difficulties reading and co-regulating their children's affects and emotions. The effects on child development and behavior, again, imply a vertical transmission of characteristic BPD traits to the child.

Therapeutic Approaches

In mothers seeking help with their infants, BPD likely is a more common disorder than previously thought. While conventional BPD-specific treatment of the mother has been reported to coincide with an improved mother-infant relationship [35], mothers with BPD are in need of help specifically targeting their parenting behavior. They often consider parenting to be particularly stressful or a burden and thus seek specialized psychotherapies [14•]. For these mothers, parenting is often associated with guilt, worry, and uncertainty. They do not know how to communicate with their children about their

¹ Tronick's still face paradigm is a standardized, video-taped procedure in which following a 2-min period of normal interaction with her child, the mother is required to keep a still-face for another 2 min facing her child, again followed by 2 min of normal interaction.

problems and mental disorders, life stressors and daily hassles, role-reversal in the parent-child relationship, or their children's futures [14•]. When mothers with a clinical diagnosis of BPD were asked about their needs in a DBT-based, parenting-specific psychotherapy, several fields of interest emerged, among them DBT-skills for children and DBT-skills in the direct context of parenting [14•].

Recently, two DBT-based parenting programs and one group therapy based on general parenting-interventions have been designed specifically for mothers with BPD. Renneberg and colleagues [15•] devised and tested the manual "Parenting Skills for Mothers with Borderline Personality Disorder," comprising 12 sessions of group therapy within a 12-week program for mothers with children ages 0 to 6 years [15•]. This program focuses on the understanding of BPD-specific parenting behavior and its impact on child development. It trains mothers in emotional and physical childcare, mindfulness towards the child, management of stressful parenting situations, conflict solutions, structured parenting, regulation of children's emotions, non-verbal communication, and maternal self-care [15•]. Preliminary results from a feasibility study showed great acceptance of the program by both mothers and therapists [15•].

McCarthy and colleagues [36] produced a manual named "Project Air," key points of the program being fostering child safety, teaching parents with BPD to understand and fulfill their children's needs, developing crisis plans, and teaching general parenting skills like setting rules and limits for children [36]. Qualitative assessment of clinicians' experiences with the program yielded promising results for acceptance by professionals and subjective usefulness [36]. Clinical trials based on this program are ongoing.

Another group therapy format focusing on mothers with BPD or BPD symptoms and their children has been developed more recently [37••]. Building on the principles of DBT, therapy is delivered in 24 sessions over the course of 24 weeks and teaches practical skills like general parenting skills, infant settling techniques, stress coping strategies, and it educates mothers in reading an infant's emotional cues. Furthermore, this program consists of psychoeducational modules focusing on the needs of the mother and the infant within the dyadic relationship. In particular, this program includes exercises together with the child: the main topics presented in the therapy sessions are then regularly practiced together for 15 min to facilitate positive mother-infant interactions. Acceptance of this program was good, with 72% of mothers completing all modules. Self-report measures on various scales completed before and after therapy indicated improvements in maternal mood and anxiety, BPD symptom severity, the dyadic-relationship, and mothers' interest in their infants' emotional and mental states [37••]. Assessments did not include children's well-being, thereby not yet providing evidence for preventive efficacy.

Conclusion

Difficulties, dysfunctions, and maladaptive parenting behaviors in BPD include increased stress, low sensitivity, low emotional availability perceived incompetence [10, 11••, 14•, 15•, 24, 26, 28]. Parents with BPD are also more likely to exhibit dysfunctional parenting behaviors, such as inability to co-regulate their children, psychological control, over-protection, autonomy-inhibiting strategies, hostility, harsh punishment, neglect, and physical and sexual abuse. Data point to a strong association between poor parenting and BPD symptom severity and suggest that parental affective instability and self-regulation difficulties play major mediating roles [11••, 12, 17, 18, 19•, 20, 21, 23•, 24, 25•, 26, 30••, 33, 34•]. Further reasons for the disrupted parent-child relationship likely include an inability to understand and interpret emotions and intentions and projecting negative expectations onto the parent-child relationship [11••, 19•, 29••]. None of the factors that burden mother-child interactions are restricted to this specific relationship. Instead, they are largely analogous to the maladaptive behaviors observed in adult interpersonal relationships of patients with BPD.

There is no doubt that the parental style of mothers with BPD has a substantial impact on child development. Difficulties in the mother-child dyad disrupt children's emotional development and attachment behavior, namely self-regulatory development and psychosocial functioning [12, 13, 16, 17, 25•, 30••, 32, 33, 34•]. Summarizing, children of parents with BPD display behavioral and emotional patterns very similar to those of their parents, consistently through all age-groups, making a strong case for a specific vertical transmission of BPD traits and the disorder itself. Despite the great burden for parents and children, to our knowledge, only three BPD-specific parenting interventions have been developed until this moment [15•, 36, 37••], and only one has been tested for efficacy [37••]. This lack of specialized treatments presents a serious gap in mental health services for affected families: while standard parenting interventions do not focus on the mental health needs of parents with BPD and their children, standard treatment for BPD does not offer help regarding parenting-related problems [14•].

Limitations of this review include insufficient information on the specificity of the previously mentioned findings, as only a few of the reviewed studies included clinical control groups. While most of the included studies controlled for depressive symptoms, various of the above-mentioned aspects characterizing the parent-child relationship have been observed in parents suffering from depression or anxiety disorders. It has been well established that children of mothers suffering from these affective disorders display more internalizing as well as externalizing problems, higher general psychopathology and negative affectivity [38] and also face developmental difficulties in comparison to healthy controls [38,

39]. Parenting styles, such as harsh, aversive, unresponsive, inconsistent [38], or insensitive [40] parenting and an impaired ability to discern emotions of the infant [39] have been reported as mediating factors [38–40]. Further studies directly comparing mothers with BPD and mothers with affective disorders and their offspring might contribute to disentangling the specific effects of these disorders on parenting. Additionally, the heterogeneity of outcome parameters limits the generalizability of the individual findings. Also, only two of the reviewed studies reporting on questionnaire data and none of the studies involving observational paradigms included fathers in addition to mothers with BPD or BPD symptoms. None of the samples were large enough to make gender-specific analyses, resulting in a dearth of information on this highly relevant group. Especially in regard to the effect of sexual abuse on child BPD pathology, which often is perpetrated not by mothers but rather by male parental figures [22•], the inclusion of fathers in future studies could yield decisive information. Furthermore, while there is information on the feasibility of BPD targeted parenting interventions and also a small body of data on the immediate effect of such programs on parental mental health, data regarding the effects on child outcomes and the prevention of abuse are still missing.

Future studies should implement longitudinal designs to elucidate possible preventative effects as well as more homogenous outcome parameters to enable the generalization of findings. At the same time, systematic investigations of fathers with BPD are needed to examine the implications of the quality of the triadic relationship and familial interaction styles. Considering the day-to-day nature of parenting-related problems, Ecological Momentary Assessment (EMA) studies would be of great interest to identify difficult parenting situations in the home environment and to shed light on specific triggers for maltreatment of children in families with one or both parents diagnosed with BPD. Clinical trials to objectify the efficacy of the aforementioned or similar BPD-specific parenting interventions and their preventive capability are urgently needed. Parents with BPD and their children are in need of validated, targeted interventions that impede the transgenerational transmission of this highly disabling disorder. These interventions might prove to be a valuable asset to individual treatment and ultimately lead to the reduction of the incidence and prevalence of BPD.

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Compliance with Ethical Standards

Conflict of Interest Julian G. Florange and Sabine C. Herpertz declare no conflict of interest.

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