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PERSONALITY DISORDERS (K BERTSCH, SECTION EDITOR)

Diagnosis and Treatment of Borderline Personality Disorder in Young People

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Abstract

Purpose of Review We review recent research concerning the diagnosis and treatment of borderline personality disorder (BPD) in young people. We examine evidence for the need to define an appropriate age for detection, and the suitability of current classification methods and treatment.

Recent Findings Evidence supports early detection and intervention for subsyndromal borderline pathology or categorical BPD across an extended developmental period. A range of structured treatments are effective for BPD in young people, although the role of treatment components in successful outcomes is unclear. Substantial evidence suggests that a stronger focus on functional outcomes, especially social and vocational outcomes, is warranted.

Summary Effective treatments for BPD are rarely available internationally. There is a need to assess whether less complex interventions might be developed that are scalable across health systems. A clinical staging model should be considered, addressing clinical distress and co-occurring psychopathology, as well as diagnosis.

Keywords Borderline personality disorder · Diagnosis · Adolescence · Young people · Early intervention · Treatment

Introduction

Similar to most of the severe mental disorders, borderline personality disorder (BPD) has its clinical onset in the period between puberty and emerging adulthood [1]. Increasing evidence points to adverse long-term outcomes for people with BPD [2•], including premature mortality [3], underscoring the public health priority to minimise or avoid such outcomes through early diagnosis and treatment [4••]. Despite international consensus that BPD can be reliably and validly diagnosed in young people [4••], and more recent evidence showing that even features below the DSM-5 diagnostic threshold ('subthreshold' BPD) are associated with poor outcomes for young people [5–7], the field remains preoccupied with validity-related issues and reticent to address barriers to delivering effective early detection and treatment in clinical practice. Although treatment programs for BPD in young people have developed in several countries [4••], they tend to be specialised and complex programs, with limited scalability across health systems to address the prevalence of the problem. Moreover, the field has had limited integration with related domains of prevention and early intervention in mental health or engagement with the rapidly growing international youth mental health movement [8, 9].

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Defining a Developmentally Coherent Group for 'Early' BPD Detection and Treatment

Reluctance to diagnose BPD in young people is often due to the belief that BPD features are reflective of normative developmental processes, rather than personality pathology. For example, in one study [10], 40% of Dutch psychologists

would not diagnose BPD in young people under the age of 18 years because they believed that these features reflected the 'storm and stress' of adolescence. Such attitudes seem to assume that the developmental processes underpinning personality development, identity formation, and executive functioning are confined to the period before age 18 years. In fact, these processes extend well into the third decade of life and some extend even beyond this time period [11–14]. Research has identified a distinct and developmentally coherent period in economically developed societies, extending from puberty (operationally defined as age 10–12 years) to around 25 years of age (young people), which is believed to support the acquisition of the culturally embodied knowledge, skills and self-regulatory capacities that are needed to achieve independent adult role functioning and integration into society [11, 12].

This developmental period also represents a period of particular vulnerability, and coincides with the peak period of clinical onset for the major mental disorders, including BPD [1, 15]. Recognition of this distinct developmental period, its associated vulnerabilities, and blends of emerging psychopathology has led to the emergence of youth mental health as an overarching construct to guide prevention and early intervention [8, 9]. The primary focus of youth mental health is to assist young people to better navigate the transition to adulthood. However, the personality disorder field has been slow to embrace this concept [16].

Defining a Threshold for 'Early' BPD Detection and Treatment

While BPD features might show continuity with aspects of normal development, such as impulsivity or emotional instability, studies consistently demonstrate that the extent and severity of these BPD features in young people, such as impulsivity [17], substance use [18], sexual behavior [19], psychosocial functioning [20], and identity disturbance [21] make them non-normative.

Borderline pathology increases from puberty, peaking in the teenage and young adult years, and attenuating across the life course [22, 23]. Recent evidence suggests that just over half (52–57%) of the variation in BPD features can be attributed to an invariant, underlying 'borderline proneness', with the remainder fluctuating in response to situational influences [24]. Reduction in the mean level of borderline pathology over time might also reflect, in part, normative developmental decreases in impulsivity, attention seeking, and dependency, and increases in self-control and social competence [14]. Nonetheless, borderline psychopathology during this developmental period has the potential to disrupt the transition to adulthood, derailing the acquisition of essential skills [25–29].

In young people, a categorical diagnosis of BPD (≥ 5 DSM-5 BPD criteria) or subthreshold borderline features (3 or 4 DSM-5 BPD criteria) are significantly and similarly associated with health-related quality of life and psychopathological distress [30], and subthreshold BPD is associated with higher mental health service use, and poorer functioning [5, 6]. This is consistent with findings in adults with BPD, which suggest higher rates of co-occurring illnesses, greater mental health service use, and poorer functioning in patients with subthreshold (as few as one DSM-5 BPD criterion) or categorical BPD [31–33]. These studies challenge the meaningfulness of the arbitrary DSM-5 BPD diagnostic threshold of $\geq$ 5 criteria and support the importance of identification of BPD features in young people at the earliest stages of illness. By the time BPD 'caseness' is achieved, much of the developmental disruption and damage to future prospects has already occurred.

Therefore, the concept of clinical staging and the "at risk mental state", first applied to the identification of youth at ultra-high risk of developing psychosis [34, 35], has been applied to BPD [36–38]. In recognition that borderline pathology does not occur in isolation from other forms of psychopathology [39], this concept has been expanded to the meta-diagnostic Clinical High At Risk Mental State (CHARMS), which includes severe (borderline) personality pathology. CHARMS aims to identify help-seeking young people experiencing clinical distress due to subthreshold symptoms [35]. This approach acknowledges that, while symptoms might follow a heterotypic course, they have independent, proximal effects upon current functioning and development, often well before reaching the threshold for the 'adult' mental disorder syndromes.

Psychotic Symptoms: An Emerging Marker of Severity Among Young People With BPD

Although BPD is most often associated with emotional instability and impulsive aggression, psychotic symptoms have been described since its conception [40, 41]. There has been renewed interest in the study of psychotic symptoms in BPD, linked to the transdiagnostic study of psychotic symptoms and to the strong support for early intervention for psychotic disorders [42, 43].

Recent research in adults has challenged the assumption that psychotic symptoms in BPD are restricted to "transient, stress related paranoid ideation or severe dissociative symptoms" (p. 652) [44]. Multimodal hallucinations, delusions, paranoia and dissociation have been found to be common among people with BPD [45–48]. For example, auditory verbal hallucinations (AVH) are reported in 13.7–50% of adults with BPD [45, 49, 50]. AVH are also reported to be phenomenologically similar to AVH in schizophrenia, with regard to their frequency, duration, location, loudness, and beliefs about the origin of the voices [46–48, 50, 51]. However, compared

with patients with schizophrenia, patients with BPD report more negative voice content [47], feeling more controlled [46] and distressed [47] by their voices, and responding with more "emotional resistance" towards their voices [52]. Yet, they experience their voices as less disruptive [48]. The presence and severity of AVH has been correlated with a greater number of co-occurring psychiatric diagnoses, along with a greater number of suicidal plans and attempts, and more hospitalisations in patients with BPD [53]. Hallucinations have also been reported to co-occur with delusional thinking, but not with negative or disorganized symptoms [45]. Adults with BPD and AVH have been reported to have less severe delusions, conceptual disorganization, and negative symptoms than adults with schizophrenia and AVH [46].

Auditory hallucinations occur in 5–21% of children and adolescents and are mostly transitory in nature [54]. However, they can persist in a subgroup of young people who are at a high risk for poor outcomes, such as mental disorders, suicidality, and poor social and occupational functioning [55]. Recent studies have found that the phenomenology of AVH in young people with BPD is similar to that in young people with schizophrenia spectrum disorders [56•] and that the cognitive model of AVH [57] appears applicable to AVH in young people, regardless of the BPD or schizophrenia spectrum diagnosis [58]. Moreover, the presence of AVH in young people with BPD might indicate a more severe form of the disorder. A study comparing twenty-three 15–25 year-olds with BPD and AVH with a matched group of twenty-three 15–25 year-olds with BPD without AVH found that the former group had significantly higher levels of self-harm, paranoid ideation, dissociation, anxiety, and stress [56•]. This is supported by a recent study of adults with BPD, with or without hallucinations in any modality, which found higher scores for depression, anxiety, loneliness and schizotypy in those with hallucinations, compared with those without [59].

The presence of psychotic symptoms in young people with BPD is therefore likely to be predictive of poorer long-term outcomes, and enduring functional impairment into adulthood, and should be considered in routine clinical assessment and treatment planning.

Although psychotic symptoms appear to be prevalent among individuals with BPD, there are not yet any randomised controlled trials of conventional pharmacological or psychosocial treatments for such symptoms in BPD.

Measurement of BPD in Young People

A variety of instruments can be used to measure BPD pathology in young people. Based on the DSM-5 Section II diagnostic criteria, three semi-structured interview measures, the Childhood Interview for Borderline Personality Disorder (CI-BPD), [60, 61], the Revised Diagnostic interview for Borderlines (DIB-R) [62] and the BPD Severity Index IV Adolescent Version (BPDSI-IV-Adolescent) [63] have all been validated in teenagers less than 18 years old. The Shedler-Westen Assessment Procedure for Adolescents, Version II, BPD scale (SWAP-II-A-BPD) [64] uses a Q-sort procedure, designed for use by clinically experienced observers in the context of either a thorough examination of a patient using a systemic clinical research interview or in a professional clinical assessment.

Self-report measures include the Borderline Personality Features Scale for Children (BPFSC) [65], developed for use in children aged 9 and over, and a short-form version, the BPFSC-11 [66]. These have been validated for use in children and adolescents [65, 67–71]; however, the age range for validation does not extend beyond 19 years. There is also a parent-report version of the BPFSC (BPFS-P) [67]. Other self-report instruments validated in young people under age 18 years include the Borderline Personality Questionnaire (BPQ) [72], the McLean Screening Instrument for BPD (MSI-BPD) [72–74], the Structured Clinical Interview for DSM-IV Axis II Disorders Personality Questionnaire (SCID-II-PQ) BPD items [72], and the Personality Assessment Inventory-Borderline Scale (PAI-A-BOR) [75]. Of note, the PAI-A-BOR formed the basis for the development of the original BPFSC.

As well as the traditional categorical method of personality disorder diagnosis, the DSM-5 section III offers an alternative dimensional model. The alternative model assesses for severity and then pattern of personality pathology. Based on this model, the Levels of Personality Functioning Questionnaire (LoPF-Q 12–18) [76] and the Personality Inventory for DSM-5 (PID-5) [77]can be used to assess personality dysfunction in young people.

As in adults, clinical diagnosis of BPD in young people requires the careful distinction between mental state and personality pathology [14] and the above instruments, especially the self-report measures, are recommended to be used in conjunction with a clinical interview.

Functional Outcomes for Young People With BPD

Longitudinal studies of adults with BPD consistently demonstrate that BPD features naturally attenuate over time, whereas impairments in social and vocational functioning persist, even decades after the diagnostic features of BPD are no longer clinically evident [2•, 78–80]. In particular, during long-term follow-up, around two thirds of adults with BPD are not engaged in any vocational pursuits [81]. In population-based studies, the presence of any BPD features is associated with poor work performance [82] and increased risk for being on a disability pension [83].

Long-term outcomes for young people with BPD include disruption to the establishment of meaningful peer and romantic relationships, successful completion of education, transition to employment, and the ability to function independently in society [30]. Longitudinal data show that elevated levels of borderline features at a mean age of 14 years predict poorer functioning over the subsequent two decades of follow-up [27]. This includes poor role functioning, social functioning, life satisfaction, academic and occupational attainment, less partner involvement, and fewer attained adult developmental milestones. Another study found that severity of personality disorder at age 24 was associated with receipt of welfare benefits and lack of post-school qualifications a decade later [84••].

Recent vocationally focussed studies highlight the extent and impact of poor vocational functioning in young people with BPD entering treatment. Of 15–25 year-olds receiving specialist care for BPD, 62% were either not in education, employment or training (NEET), or were only partially engaged in employment or education [85]. Young people with even subthreshold features of BPD (1–4 DSM-IV criteria) have poorer social and occupational functioning than patients with no personality disorder features [5]. A recent Danish nationwide 9-year register-based study investigated the long-term labour-market attachment of all individuals diagnosed with BPD during their first admission to Danish mental health services [86•]. Compared with other psychiatric disorders, the BPD group had 32% lower odds (OR = 0.68; 95% CI [0.61, 0.76]) of being in work or education after 9 years. The BPD group also showed greater impairment in long-term vocational outcome than those with other personality disorders, and lower labour-market attachment than most psychiatric disorders, except for schizophrenia spectrum or substance use disorders.

These data underscore the importance of interpersonal and vocational outcomes in BPD. Yet, these are often overshadowed by the focus upon BPD features and self-harm.

Treatment for Young People With BPD

Table 1 shows that there are now eight randomised controlled trials (RCTs) of structured psychological interventions, with active comparison groups, specifically targeting samples of young people where the majority of participants had either BPD features and/or BPD [87–94]. Some have explicitly focused upon young people with early stage disorder (early intervention) [92–94]. Others have focused on self-harm outcomes, not specifying the stage of disorder [87–89, 91], and one did not have a pre-specified primary outcome [90].

Structured psychological interventions have consistently demonstrated clinically significant improvements among young people with borderline features or BPD. In the majority of trials, specialised BPD interventions have outperformed comparison conditions (such as Treatment As Usual; TAU) with regard to the rate [87–89, 91, 93] and/or extent [87–89, 91] of improvement on the primary outcome(s). However, these differences have usually been clinically modest and they have not been sustained in the longer term [91, 95].

Table 1 Comparison of full-scale randomised controlled trials of a psychotherapeutic intervention conducted with young people with BPD features and/or diagnosis

	Sample size	Age		Sex	BPD criteria	BPD diagnosis	Primary outcome	Intervention	Comparison
	(Randomised)	*Range*	*Mean (SD)*	*% (n) female*	*Possible range*	*%(n)*			
Chanen et al. [25]	78	15–18	16.4 (0.9)	68.6 (59)	2–9	41.0 (32)	psychopathology, self-harm, functioning	CAT	GCC
Schuppert et al. [63]	109	14–19	16.0 (1.2)	96 (nr)	2–9	73 (nr)	BPD severity	ERT + TAU	TAU
Rossouw & Fonagy [87]	80	12–17	14.7 (−)	85 (68)	0–9	72.5 (58)	self-harm	MBT-A	TAU
Pistorello et al. [88]	63	18–25	20.9 (1.9)	80.9 (nr)	3–9	nr	suicidality, depression, self-harm	DBT	O-TAU
Mehlum et al. [89]	77	12–18	15.6 (1.5)	88.3 (68)	2–9	20.5 (15)	self-harm, suicidal ideation, depressive symptoms	DBT-A	EUC
Santisteban et al. [90]	40	14–17	15.8 (0.8)	37.5 (15)	5–9	100 (40)	Not stated	I-BAFT	IDC
McCauley et al. [91]	173	12–18	14.9 (1.5)	94.8 (163)	3–9	53.2 (92)	self-harm, suicidal ideation	DBT	IGST
Beck et al. [92]	112	14–17	15.8 (1.1)	98.2 (110)	4–9	95.5 (107)	BPD severity	MBT	TAU

BPD, borderline personality disorder; *SD*, standard deviation; *CAT*, Cognitive Analytic Therapy; *GCC*, Good Clinical Care; *TAU*, treatment as usual; *ERT*, Emotion Regulation Training; *MBT-A*, Mentalisation-Based Treatment for adolescents; *nr*, not reported; *DBT*, Dialectical Behaviour Therapy; *O-TAU*, optimised TAU; *DBT-A*, Dialectical Behaviour Therapy for adolescents; *EUC*, enhanced usual care; *I-BAFT*, integrative BPD-oriented adolescent family therapy; *IDC*, individual drug counselling; *IGST*, Individual and group supportive therapy; *MBT*, Mentalisation-Based Treatment

There are significant limitations to the basic design and quality of many studies (e.g., not prospectively registered, non-blinding outcome assessors, reliability of outcome assessments). Crucially, most trials have used inadequately characterised comparison treatments that are variations on TAU [87–89, 92, 94] and/or have not reported treatment fidelity. Three trials have used manualised comparison treatments [90, 91, 93] but only two have reported fidelity data [91, 93].

Conclusion and Future Directions

BPD usually has its clinical 'onset' between puberty and young adulthood and has high potential to disrupt the successful transition to adulthood, with lifelong consequences for interpersonal and vocational outcomes and physical health, in particular. There is now strong evidence to support early detection (supported by reliable measures) and intervention for subsyndromal borderline pathology or categorical BPD across an extended developmental period from puberty to emerging adulthood. Such efforts are currently isolated from similar endeavours across the range of severe mental disorders in the youth mental health field internationally. Integration with these fields would recognise that borderline pathology does not occur in isolation from other forms of psychopathology, and that psychotic symptoms in people with BPD might be more frequent than previously believed and might indicate a more severe form of the disorder.

A key message from the clinical trial literature for BPD in young people is that a range of structured treatments that are designed for BPD in young people are effective. Yet, these treatments are rarely available in healthcare systems internationally, despite the scale of BPD as a public health problem [4••]. Also, it remains unclear what role specific components of treatment (e.g., service model, family intervention, individual psychotherapy) might play in treatment outcomes [96] and whether less complex interventions might be developed that are scalable across health systems. Finally, while BPD pathology or self-harm are often the focus of treatment, the above evidence suggests that a stronger focus on functional outcomes, especially social and vocational outcomes, is warranted.

Compliance with Ethical Standards

Conflict of Interest Andrew M. Chanen, Katie Nicol, Jennifer K. Betts, and Katherine N. Thompson each declare no potential conflicts of interest.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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