Early Intervention for Personality Disorder

Andrew M. Chanen, M.B.B.S. (Hons), Ph.D., Carla Sharp, Ph.D., Katie Nicol, Ph.D., Michael Kaess, M.D.

Both the *DSM-5* Section III Alternative Model for Personality Disorders and the *ICD-11* have introduced a genuinely developmental approach to personality disorder. Among young people with personality disorder, compelling evidence demonstrates a high burden of disease, substantial morbidity, and premature mortality, as well as response to treatment. Yet, early diagnosis and treatment for the disorder have struggled to emerge from its identity as a controversial diagnosis to a mainstream focus for mental health services. Key reasons for this include stigma and discrimination, lack

There is now a compelling evidence base demonstrating the reliability and validity of the personality disorder diagnosis across the lifespan, including for people under age 18 (1, 2). Clinically significant personality disorder usually emerges during the developmental period spanning from adolescence to young adulthood (which, for the purposes of this article, is defined as ages 12-25 years [i.e., "young people"]) (2), and has a cumulative prevalence of more than 25% between ages 14-22 years (3). Personality disorder is associated with a high burden of disease, morbidity, and premature mortality. However, the disorder has yet to make the leap from controversial diagnosis to mainstream mental health problem. Many clinicians remain reluctant to embrace early diagnosis and treatment (i.e., early intervention), with rates of detection 10-20 times lower than that suggested by clinical epidemiological data (4, 5).

DEVELOPMENTALLY INFORMED CLASSIFICATION OF PERSONALITY PATHOLOGY AND CLINICAL ONSET

Both the Alternative Model for Personality Disorders in *DSM*-5 Section III and the *ICD-11* have introduced a genuinely developmental approach to personality disorder (6). They have adopted a dimensional trait approach to personality pathology that can be applied to all ages and that is consistent both with longstanding approaches to understanding psychopathology among children and adolescents and with substantial research showing that dispositional personality traits are observable among prepubertal children. They also of knowledge about and failure to identify personality disorder among young people, along with the belief that personality disorder must always be addressed through lengthy and specialized individual psychotherapy programs. In fact, evidence suggests that early intervention for personality disorder should be a focus for all mental health clinicians who see young people and is feasible by using widely available clinical skills.

Focus 2022; 20:402-408; doi: 10.1176/appi.focus.20220062

formulate personality pathology in terms of maladaptive selfand interpersonal functioning, allowing for integration of established research on identity functioning into the study of maladaptive personality functioning.

This new approach provides a framework for understanding why the transition from childhood to adulthood appears to herald a sensitive development period, not only for the onset of major mental state disorders (7), but also for the onset of personality pathology, consequently informing a clinical staging approach to prevention and early intervention for personality pathology (6, 8). Although maladaptive personality traits have been studied comprehensively among children and adolescents (9), they provide an incomplete picture for clinical staging. An understanding of self- and interpersonal functioning is fundamental to clinical staging, because it captures the process by which prepubertal maladaptive traits transform into personality disorder among young people (10, 11).

Much of the research on personality disorder among young people has focused on borderline personality disorder; this disorder has been proposed to capture the core of personality pathology and to be most representative of all personality disorders (12, 13). Therefore, in this article, we use the terms "borderline" and "severe" personality disorder interchangeably, extrapolating the borderline personality disorder literature beyond the limits of its categorical diagnosis.

Another key component of a contemporary developmental understanding of personality pathology among young people is recognition that the transition from childhood to adulthood has become more complex and protracted in the 21st century, extending well beyond traditional concepts of adolescence (14, 15). This extended period of developmental challenge and vulnerability coincides with the peak period of clinical onset for the major mental disorders, including personality disorder (16). Knowledge that emerging psychopathology during this period is heterogeneous, and that personality pathology does not occur in isolation from other forms of psychopathology, has led to the emergence of youth mental health as an overarching concept to guide prevention and early intervention and to the application of transdiagnostic clinical staging to include personality disorder (6-8, 14). Transdiagnostic clinical staging recognizes that the early stages of the development of mental illness are marked by substantial changeability and uncertainty and that psychopathology might or might not evolve into more enduring syndromes that are typically seen in adult psychiatric settings. Staging enables more personalized selection of treatments that are proportionate to the young person's current needs and risk of illness progression and provides a pragmatic structure to guide service delivery (7).

WHY IS EARLY DETECTION OF PERSONALITY DISORDER IMPORTANT?

The personality disorder diagnosis has substantial clinical heuristic value among young people for both current and future problems. Personality disorder is the fourth leading cause of burden of disease among all mental disorders (after depression, anxiety, and schizophrenia) across all ages, and it ranks in the top 10 causes of disease burden among young people (17). Among young people, personality disorder distinguishes a group with high levels of distress, significant impairment in self- and interpersonal functioning, and extreme or inflexible personality traits. When compared with their peers without personality disorder, those with the condition have strikingly elevated levels of current psychopathology, including substance use, self-harm, and suicide attempts. Their problems and needs also extend to poor physical and sexual health, high rates of dropout from education, increased risk of being a victim or perpetrator of interpersonal violence and nonviolent offenses, and family violence (1). Quality of life scores among young people with personality disorder are the lowest for any disease group, worse than those for similar-aged people with cancer (18). Families of young people with personality disorder also struggle, with significantly elevated levels of distress, negative caregiving experiences, expressed emotion, and maladaptive coping strategies, compared with the general population of adults or with caregivers of young people with other severe illnesses, including first-episode psychosis (19, 20).

ELEVATED LEVELS OF PERSONALITY PATHOLOGY PREDICT FUTURE PROBLEMS

Borderline features among young people independently predict future risk of psychotic and hypomanic symptoms, a diagnosis of depression, personality difficulties, poor mental health, poor functional outcomes, and becoming a perpetrator or victim of violence (21–24). Borderline personality disorder features among young people are also associated with poorer educational and vocational outcomes and increased health care costs as early as age 20 (25), and these problems have been shown to persist for at least 2 decades (26). Nine years after first contact with the mental health system, people with the disorder are less likely to be employed or undertaking education, compared with those with other mental disorders, except for those with schizophrenia and schizotypal or delusional disorders (27), and the disorder is more strongly associated with unemployment and receipt of a disability pension than is depression or anxiety (28). Tragically, the mortality rate for people with recent-onset personality disorder is 10 times that of the general population, and life expectancy is reduced by nearly 2 decades (29, 30). Up to 10% of people with personality disorder die by suicide (31), and those with personality disorder are at greater risk of death by suicide than are those with other severe mental disorders (29).

ETIOLOGY AND NEUROBIOLOGY

Contemporary theories of the development of borderline personality disorder are situated within a developmental psychopathology framework (32). Accordingly, these theories identify genetic, biological, and/or psychological vulnerabilities in domains, such as emotion regulation (33), social cognition (34), or self- and identity development (35) that interact with the environment to derail healthy personality development. These theories are empirically supported by prospective studies that suggest a moderate genetic predisposition for personality disorder, in the same range as that for most other psychiatric disorders (36). Developmental psychopathology theories are further supported by research showing reciprocal or mediational associations between environmental risk factors, such as early maternal bonding impairment (37), harsh (38) or insensitive (39) parenting, physical maltreatment and/or maternal negative expressed emotion (40), and bully victimization (41), as well as concurrent or subsequent disruptions in self-control (42), mentalizing (40), emotion regulation (43), and self-representation (44).

Compared with the environmental risk factors, the role of underlying neurobiology in personality disorder lacks evidence, particularly for young people with first-presentation personality pathology. The etiology of biological alterations found among older patients remains unclear, possibly arising because of the chronicity or duration of illness (e.g., substance misuse or unhealthy lifestyle) and/or long-term treatment effects (i.e., polypharmacy) (45). Nonetheless, replicated biological research has suggested a fronto-limbic imbalance (45–47), as well as alterations of the peripheral stress response systems (48) or the hypothalamic-pituitaryadrenal axis (49). Research to date has suggested that these prefrontal regulatory deficits inhibit top-down control of emotions and impulses, likely leading to emotional dysregulation and subsequent impulsive risk-taking and self-harm behaviors. Regarding the biological stress response, current evidence points to attenuated vagal activity (low parasympathetic functioning) as well as attenuated cortisol response to psychosocial stress (likely a result of chronic hyperactivity of the stress response system). However, these temperamental, biological, and environmental risk factors are nonspecific to personality disorder, and some or all aspects of the etiological pathway are shared with many mental state disorders.

TREATMENT STRATEGIES AND EVIDENCE

There is a maturing literature demonstrating the effectiveness of treatment for young people with personality disorder (1, 50), including nine published randomized controlled trials (RCTs) of a structured psychological intervention versus an active comparator (51). In most trials, structured psychological interventions have been superior to comparator treatments with regard to the rate and/or amount of improvement on the primary outcome. However, between groups differences have been clinically modest, and these differences have not been durable across follow-up periods of 12–36 months.

Some caution is required when interpreting these trials, because the clinical stage (e.g., subthreshold features vs. firstpresentation vs. enduring disorder) of participants in these trials has been specified infrequently, and many trials have excluded young people with the most severe clinical presentations and/or common problems, such as substance dependence. Importantly, most trials have used insufficiently documented treatment as usual as a comparator, and few have reported on the quality or fidelity of the treatments administered.

Interestingly, among both young people and adults diagnosed as having borderline personality disorder, when wellcharacterized, high-quality treatments (i.e., not treatment as usual) have been used as comparators against "brand name" psychotherapies (e.g., cognitive analytic therapy, dialectical behavior therapy, mentalization-based treatment, transference-focused psychotherapy), the comparator treatments have performed almost as well or just as well as the better known psychotherapies (52). These results led to a recent high-quality clinical trial, which found that effective early intervention for borderline personality disorder could be achieved without using specialist psychotherapy (51). Rather, early intervention only required the more generally available skills of youth-oriented clinical case management and psychiatric care.

Despite the hopeful state of the treatment literature, globally, relatively few young people have benefited from these findings (5, 53). One key reason is the failure to identify personality disorder among young people presenting for care. Another is the long-held notion that a diagnosis of personality disorder must always be addressed through lengthy and complex specialist psychotherapy programs.

Although these programs can be effective, they are usually complex, with high training needs and limited capacity for scaling up throughout health systems, thus severely limiting access to timely and appropriate care (5). The above evidence not only suggests that early intervention for personality disorder might be feasible with skills that are widely available in mainstream psychiatric services, but also that early intervention might be relatively easily scaled up throughout health systems in middle- and high-income countries.

MEDICATION

Systematic review evidence does not support pharmacological intervention for the features of personality disorder (54), and preliminary evidence suggests that this evidence is unlikely to change with the forthcoming update of the Cochrane review (55). This lack of evidence is especially the case among young people with personality disorder, for whom there are no published, high-quality RCTs. Yet, psychotropic medications are frequently prescribed in the absence of clear clinical indications (56, 57), often with multiple medications used for extended periods (56, 58). Furthermore, medications prescribed to manage crises are frequently continued far beyond a helpful time frame, often driven by clinician concern that cessation will destabilize a patient (59).

In contrast, there is also evidence that some mental state disorders among young people, such as first-episode psychosis, might be undertreated with medications when co-occurring with personality disorder (60). Clinical experience suggests that this undermedication frequently occurs when common mental state disorders, such as depression, co-occur with personality disorder.

QUESTIONS AND CONTROVERSIES

Stigma, Prejudice, and Discrimination

Young people living with personality disorder, and those who care for them, still struggle to be respected and taken seriously (61). They experience significantly greater stigma than those with other severe mental disorders (but without personality disorder), and more severe personality disorder is associated with increased stigma, regardless of co-occurring diagnoses (62). Negative attitudes and mistaken beliefs about personality disorder are common and widespread, especially among health professionals (63, 64). In many countries, there is a longstanding and deeply rooted clinical culture, including among psychiatrists, in which people living with personality disorder are seen as less worthy of care than people with other mental health diagnoses (65), and in which clinicians experience purposelessness in working with this group (64). Despite evidence supporting the effectiveness of treatment, appropriate, evidence-based, and considered care is less likely to be offered to young people with personality disorder (60), and discrimination in clinical settings can result in lack of engagement in treatment or early withdrawal from services

(66, 67). Given the immense stigma of the disorder in many (but not all) health systems, it is unsurprising that many health care professionals want to protect young people by avoiding the diagnosis of personality disorder (61, 68). However, this approach risks colluding with and reinforcing discriminatory beliefs and behaviors, thereby creating further harm, and thus jeopardizing the opportunity for early intervention.

Trauma and Personality Disorder

Misguided beliefs regarding the etiology of personality disorder can also be harmful (61). Established empirical literature has shown that childhood adversity (e.g., abuse and neglect), a nonspecific risk factor associated with almost every major mental disorder, is neither necessary nor sufficient for development of personality disorder (69). Recent meta-analytic data (70) have confirmed this finding by showing that, although childhood adversity is three times more commonly reported among those living with borderline personality disorder than among other clinical populations, 29% of adults living with the disorder report no childhood adversity. Yet, reductionist thinking about the etiology of personality disorder persists and risks blinding clinicians to other relevant factors, including the complex interaction between environmental exposures and genetic vulnerabilities. Another important consequence is that families of young people with personality disorder are frequently blamed and marginalized, thereby discouraging them from seeking treatment and risking poor outcomes.

Notwithstanding this evidence, borderline personality disorder and posttraumatic stress disorder (PTSD) co-occur in approximately one-third of young people (51), leading some to suggest that borderline personality disorder is a variant of PTSD, rather than a distinct disorder, and should be renamed as complex PTSD (C-PTSD). Again, this view ignores the evidence supporting nontraumatic pathways to borderline personality disorder for a large minority of people (61, 70), that borderline personality disorder and C-PTSD are distinguishable from one another (71), and that twothirds of young people with borderline personality disorder do not report symptoms consistent with PTSD (51). Importantly, when borderline personality disorder and PTSD do co-occur, people show significantly impaired functioning, compared with those with either disorder alone (72).

Psychotic Symptoms

Psychotic symptoms, especially auditory verbal hallucinations (AVH), have recently been studied among 15–25-yearolds with newly diagnosed borderline personality disorder or schizophrenia spectrum disorder. Consistent with studies among samples of adults with borderline personality disorder (73), AVH were indistinguishable between the two groups with regard to physical, cognitive, or emotional characteristics (74). Clinically relevant differences were that the young people with borderline personality disorder and AVH had less severe delusions and difficulties with abstract thinking, compared with the schizophrenia spectrum group. The presence of AVH in particular among people with borderline personality disorder is associated with a higher incidence of suicidal plans and attempts and more hospitalizations (75) and increased severity of comorbid difficulties, such as anxiety and depression (74, 76). These findings suggest that psychotic symptoms among young people with borderline personality disorder require acknowledgment and consideration in treatment plans.

CONCLUSIONS AND RECOMMENDATIONS

Young people with personality disorder are often seen as "someone else's business." The evidence above suggests that early intervention for personality disorder is the business of all mental health clinicians, in particular of those who see young people.

Diagnosis and Outcome Measurement

To facilitate diagnosis, treatment, and evaluation of treatment outcome among young people with personality difficulties, inclusion of assessment of personality functioning in routine clinical care is recommended. There is growing evidence that personality disorder can be reliably diagnosed from age 12 (77), and associated features can be clinically detected even before puberty. Clinical staging assessment approaches for personality disorder assist with matching more specific and proportionate treatment recommendations on the basis of disorder progression (8, 78). Following the ICD-11 conceptualization of personality disorder, the International Consortium for Health Outcomes Measurement recommended validated measures to cover 11 core outcomes, and three optional outcomes, across four health domains (mental health, behavior, functioning, and recovery) for assessment of personality disorder across the lifespan (79).

Care Planning

Care plans focusing on structured clinical case management and psychiatric care, in the absence of a specialist setting or brand name psychotherapy, yield significant improvements and can be implemented widely without the need for additional resources (51, 80, 81). Many clinicians lack the confidence to treat personality disorder, convinced that they must deliver intensive, specialist care, and feeling ill-equipped to do so. With mounting evidence to the contrary, refusing to provide routine care to patients with a personality disorder diagnosis should not be accepted practice. It is the responsibility of all mental health professionals to challenge negative and damaging beliefs regarding personality disorder in the workplace and beyond.

Functional Outcomes

Maintaining a focus on interpersonal and vocational functional outcomes is crucial, because these are the areas of persistent impairment over decades for young people living with personality disorder (82, 83). Pursuit of these goals is often overshadowed by an exclusive focus on acute behavioral problems, especially self-harm and suicidal behavior (82). The longer a young person is derailed from the crucial developmental tasks of building meaningful relationships and finding a vocational pathway into adulthood, the more difficult it is to recover. Practical and common-sense approaches should aim to support young people in building or maintaining social networks and in completing education or entering the workforce as they make the transition to adult role functioning (81-83). Lengthy hospital stays or long-stay residential programs are likely to hinder such goals and are not supported by clinical trial or other evidence. Rather, assisting young people to function better in their families and communities is crucial. To this end, family engagement and psychoeducation are important pillars of treatment planning. Families commonly have highly negative experiences with psychiatric care, often feeling blamed, vilified, and marginalized (20); such experiences can be prevented through early family engagement, psychoeducation, and treatment planning.

Nonsuicidal Self-Injury and Suicidal Behavior

Nonsuicidal self-injury (NSSI) and suicidal behavior will inevitably draw some of the short-term focus of care and should not be ignored. Structured crisis planning and a clear framework for risk management help to keep the patient safe, and allow clinician, caregiver, and patient to determine clear expectations of care. Established risk management procedures and brief manualized psychotherapeutic interventions that specifically target management of self-harm have proven effectiveness and can be easily implemented (84). During acute suicidal crises, there might be a role for short-term, goal-directed inpatient care until a community-based management plan can be established (85, 86). Clinicians should be attuned to the risk of iatrogenic harm from prolonged and/or coercive inpatient care.

Although most NSSI is intended to regulate extreme emotion (87), or as self-punishment, one in four young people cannot identify the reasons for their self-harm (88). Unlike persistent functional impairment, it is now established that all forms of self-harm naturally attenuate over relatively few years in personality disorder and in community samples of young people (89-91). Understanding the functional role of NSSI and supporting the development of adaptive skills are central tasks. This process can take time, and there is no evidence to support prolonged hospitalization or other institutional care in the management of NSSI. Moreover, the utility of suicidal ideation or self-harm as a test for later suicide is limited by modest sensitivity and low positive predictive value (92, 93). In fact, among young people with borderline personality disorder, habitual patterns of NSSI have been associated with lower severity and fewer suicide attempts than random patterns of NSSI (94), and the frequency of NSSI over the previous 12 months has been found to be unrelated to the number of suicide attempts (95).

Psychotic Symptoms

Clinicians should routinely inquire whether patients with borderline personality disorder experience AVH or other psychotic symptoms. Dismissing psychotic symptoms in borderline personality disorder as "quasipsychotic" or "psuedohallucinations" is disrespectful and not supported by evidence. Clinicians should be alert to a potential false dichotomy in differential diagnosis. Some patients will have borderline personality disorder *and* psychosis and this joint occurrence should be considered to be a marker of more severe disorder (including suicide risk), as it is for young people with mood disorders. Notably, disorganized behavior and negative psychotic symptoms are uncommon in severe personality disorder and might indicate the presence of an even more extensive psychotic illness, such as schizophrenia spectrum disorder.

AUTHOR AND ARTICLE INFORMATION

Orygen, and Centre for Youth Mental Health, University of Melbourne, Melbourne (Chanen, Nicol); Department of Psychology, University of Houston, Houston (Sharp); University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern, Bern, Switzerland, and Department of Child and Adolescent Psychiatry, Center for Psychosocial Medicine, University Hospital Heidelberg, Heidelberg, Germany (Kaess). Send correspondence to Dr. Chanen (andrewchanen@orygen.org.au).

The authors report no financial relationships with commercial interests.

REFERENCES

- Chanen AM, Nicol K, Betts JK, et al: Diagnosis and treatment of borderline personality disorder in young people. Curr Psychiatry Rep 2020; 22:25
- 2. Newton-Howes G, Clark LA, Chanen A, et al: Personality disorder across the life course. Lancet 2015; 385:727–734
- Johnson JG, Cohen P, Kasen S, et al: Cumulative prevalence of personality disorders between adolescence and adulthood. Acta Psychiatr Scand 2008; 118:410–413
- 4. O'Dwyer N, Rickwood D, Buckmaster D, et al: Therapeutic interventions in Australian primary care, youth mental health settings for young people with borderline personality disorder or borderline traits. Borderline Personal Disord Emot Dysregul 2020; 7:23
- Chanen AM, Nicol K: Five failures and five challenges for prevention and early intervention for personality disorder. Curr Opin Psychol 2021; 37:134–138
- 6. Sharp C, Kerr S, Chanen AM: Early identification and prevention of personality pathology; in The American Psychiatric Association Publishing Textbook of Personality Disorders, 3rd ed. Edited by Skodol AE, Oldham JM. Washington, DC, American Psychiatric Publishing, 2021
- McGorry PD, Mei C: Clinical staging for youth mental disorders: progress in reforming diagnosis and clinical care. Annu Rev Dev Psychol 2021; 3:15–39
- Chanen AM, Berk M, Thompson K, et al: Integrating early intervention for borderline personality disorder and mood disorders. Harv Rev Psychiatry 2016; 24:330–341
- 9. De Clercq B: Integrating developmental aspects in current thinking about personality pathology. Curr Opin Psychol 2018; 21:69–73
- Sharp C, Vanwoerden S, Wall K, et al: Adolescence as a sensitive period for the development of personality disorder. Psychiatr Clin North Am 2018; 41:669–683
- Sharp C, Kerr S, Barkauskienė R, et al: The incremental utility of maladaptive self and identity functioning over general functioning for borderline personality disorder features in adolescents. Personal Disord (Epub ahead of print, Feb 24, 2022) doi: 10.1037/per0000547
- Clark LA, Ro E: Three-pronged assessment and diagnosis of personality disorder and its consequences: personality functioning, pathological traits, and psychosocial disability. Personal Disord 2014; 5:55–69

- Sharp C, Wright AGC, Fowler JC, et al: The structure of personality pathology: both general ('g') and specific ('s') factors? J Abnorm Psychol 2015; 124:387–398
- 14. McGorry PD, Mei C, Chanen A, et al: Designing and scaling up integrated youth mental health care. World Psychiatry 2022; 21:61–76
- Dahl RE, Allen NB, Wilbrecht L, et al: Importance of investing in adolescence from a developmental science perspective. Nature 2018; 554:441-450
- 16. Chanen AM, Thompson KN: The age of onset of personality disorders; in Age of Onset of Mental Disorders: Etiopathogenetic and Treatment Implications. Edited by de Girolamo G, McGorry PD, Sartorius N. Cham, Switzerland, Springer, International Publishing, 2019
- GBD 2019 Mental Disorders Collaborators: Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet Psychiatry 2022; 9:137–150
- Chanen AM, Betts JK, Jackson H, et al: A comparison of adolescent versus young adult outpatients with first-presentation borderline personality disorder: findings from the MOBY randomized controlled trial. Can J Psychiatry 2022; 67:26–38
- 19. Seigerman MR, Betts JK, Hulbert C, et al: A study comparing the experiences of family and friends of young people with borderline personality disorder features with family and friends of young people with other serious illnesses and general population adults. Borderline Personal Disord Emot Dysregul 2020; 7:17
- 20. Cotton SM, Betts JK, Eleftheriadis D, et al: A comparison of experiences of care and expressed emotion among caregivers of young people with first-episode psychosis or borderline personality disorder features. Aust N Z J Psychiatry (Epub ahead of print, Oct 11, 2021) doi: 10.1177/00048674211050299
- 21. Wertz J, Caspi A, Ambler A, et al: Borderline symptoms at age 12 signal risk for poor outcomes during the transition to adulthood: findings from a genetically sensitive longitudinal cohort study. J Am Acad Child Adolesc Psychiatry 2020; 59:1165–1177.e2
- Winsper C, Wolke D, Scott J, et al: Psychopathological outcomes of adolescent borderline personality disorder symptoms. Aust N Z J Psychiatry 2020; 54:308–317
- 23. Cavelti M, Thompson K, Betts J, et al: Young people with borderline personality disorder have an increased lifetime risk of being the victim of interpersonal violence. J Interpers Violence (Epub ahead of print, Jan 18, 2021) doi: 10.1177/0886260520986270
- 24. Cavelti M, Thompson K, Betts J, et al: Borderline personality disorder diagnosis and symptoms in outpatient youth as risk factors for criminal offenses and interpersonal violence. J Pers Disord 2021; 35:23–37
- Hastrup LH, Jennum P, Ibsen R, et al: Welfare consequences of earlyonset borderline personality disorder: a nationwide register-based case-control study. Eur Child Adolesc Psychiatry 2022; 31:253–260
- Winograd G, Cohen P, Chen H, et al.: Adolescent borderline symptoms in the community: prognosis for functioning over 20 years. J Child Psychol Psychiatry 2008; 49:933–941
- 27. Hastrup LH, Kongerslev MT, Simonsen E, et al.: Low vocational outcome among people diagnosed with borderline personality disorder during first admission to mental health services in Denmark: a nationwide 9-year register-based study. J Pers Disord 2019; 33:326–340
- Ostby KA, Czajkowski N, Knudsen GP, et al: Personality disorders are important risk factors for disability pensioning. Soc Psychiatry Psychiatr Epidemiol 2014; 49:2003–2011
- 29. Nordentoft M, Wahlbeck K, Hällgren J, et al: Excess mortality, causes of death and life expectancy in 270,770 patients with recent onset of mental disorders in Denmark, Finland and Sweden. PLoS One 2013; 8:e55176
- Fok ML-Y, Hayes RD, Chang C-K, et al: Life expectancy at birth and all-cause mortality among people with personality disorder. J Psychosom Res 2012; 73:104–107
- 31. Paris J: Suicidality in borderline personality disorder. Medicina 2019; 55:223

- 32. Winsper C: The aetiology of borderline personality disorder (BPD): contemporary theories and putative mechanisms. Curr Opin Psychol 2018; 21:105–110
- Crowell SE, Beauchaine TP, Linehan MM, et al.: A biosocial developmental model of borderline personality: elaborating and extending Linehan's theory. Psychol Bull 2009; 135:495–510
- 34. Luyten P, Campbell C, Allison E, et al: The mentalizing approach to psychopathology: state of the art and future directions. Annu Rev Clin Psychol 2020; 16:297–325
- 35. Sharp C: Adolescent personality pathology and the alternative model for personality disorders: self development as nexus. Psychopathology 2020; 53:198–204
- Bohus M, Stoffers-Winterling J, Sharp C, et al: Borderline personality disorder. Lancet 2021; 398:1528–1540
- 37. Fleck L, Fuchs A, Moehler E, et al: Maternal bonding impairment predicts personality disorder features in adolescence: the moderating role of child temperament and sex. Personal Disord 2021; 12:475–483
- Stepp SD, Whalen DJ, Scott LN, et al: Reciprocal effects of parenting and borderline personality disorder symptoms in adolescent girls. Dev Psychopathol 2014; 26:361–378
- Reinelt E, Stopsack M, Aldinger M, et al: Longitudinal transmission pathways of borderline personality disorder symptoms: from mother to child? Psychopathology 2014; 47:10–16
- 40. Belsky DW, Caspi A, Arseneault L, et al: Etiological features of borderline personality related characteristics in a birth cohort of 12-year-old children. Dev Psychopathol 2012; 24:251–265
- 41. Winsper C, Hall J, Strauss VY, et al: Aetiological pathways to borderline personality disorder symptoms in early adolescence: childhood dysregulated behaviour, maladaptive parenting and bully victimisation. Borderline Personal Disord Emot Dysregul 2017; 4:10
- Hallquist MN, Hipwell AE, Stepp SD, et al: Poor self-control and harsh punishment in childhood prospectively predict borderline personality symptoms in adolescent girls. J Abnorm Psychol 2015; 124:549–564
- Lereya ST, Winsper C, Tang NKY, et al: Sleep problems in childhood and borderline personality disorder symptoms in early adolescence. J Abnorm Child Psychol 2017; 45:193–206
- 44. Carlson EA, Egeland B, Sroufe LA, et al: A prospective investigation of the development of borderline personality symptoms. Dev Psychopathol 2009; 21:1311–1334
- 45. Chanen AM, Velakoulis D, Carison K, et al: Orbitofrontal, amygdala and hippocampal volumes in teenagers with first-presentation borderline personality disorder. Psychiatry Res 2008; 163:116–125
- 46. Koenig J, Höper S, van der Venne P, et al: Resting state prefrontal cortex oxygenation in adolescent non-suicidal self-injury—a nearinfrared spectroscopy study. Neuroimage Clin 2021; 31:102704
- Brunner R, Henze R, Parzer P, et al: Reduced prefrontal and orbitofrontal gray matter in female adolescents with borderline personality disorder: is it disorder specific? Neuroimage 2010; 49:114–120
- Koenig J, Thayer JF, Kaess M, et al.: Psychophysiological concomitants of personality pathology in development. Curr Opin Psychol 2021; 37:129–133
- Drews E, Fertuck EA, Koenig J, et al: Hypothalamic-pituitaryadrenal axis functioning in borderline personality disorder: a meta-analysis. Neurosci Biobehav Rev 2019; 96:316–334
- 50. Bo S, Vilmar JW, Jensen SL, et al: What works for adolescents with borderline personality disorder: towards a developmentally informed understanding and structured treatment model. Curr Opin Psychol 2021; 37:7–12
- Chanen AM, Betts JK, Jackson H, et al: Effect of 3 forms of early intervention for young people with borderline personality disorder: the MOBY randomized clinical trial. JAMA Psychiatry 2022; 79:109–119
- 52. Bateman AW, Gunderson J, Mulder R, et al: Treatment of personality disorder. Lancet 2015; 385:735-743
- 53. Wall K, Kerr S, Sharp C, et al: Barriers to care for adolescents with borderline personality disorder. Curr Opin Psychol 2021; 37:54–60

- Stoffers J, Völlm BA, Rücker G, et al: Pharmacological interventions for borderline personality disorder. Cochrane Database Syst Rev 2010; 16:CD005653
- Stoffers-Winterling JM, Storebø OJ, Völlm BA, et al: Pharmacological interventions for people with borderline personality disorder. Cochrane Database Syst Rev 2018; 2018:CD012956 doi: 10.1002/14651858.cd012956
- 56. Paton C, Crawford MJ, Bhatti SF, et al: The use of psychotropic medication in patients with emotionally unstable personality disorder under the care of UK mental health services. J Clin Psychiatry 2015; 76:e512-e518
- 57. Chanen AM, Thompson KN: Prescribing and borderline personality disorder. Aust Prescr 2016; 39:49-53
- Bridler R, Häberle A, Müller ST, et al: Psychopharmacological treatment of 2195 in-patients with borderline personality disorder: a comparison with other psychiatric disorders. Eur Neuropsychopharmacol 2015; 25:763–772
- Fineberg SK, Gupta S, Leavitt J, et al: Collaborative deprescribing in borderline personality disorder: a narrative review. Harv Rev Psychiatry 2019; 27:75–86
- 60. Francey SM, Jovev M, Phassouliotis C, et al: Does co-occurring borderline personality disorder influence acute phase treatment for first-episode psychosis? Early Interv Psychiatry 2018; 12:1166–1172
- Chanen AM: Bigotry and borderline personality disorder. Australas Psychiatry 2021; 29:579–580
- 62. Catthoor K, Feenstra DJ, Hutsebaut J, et al: Adolescents with personality disorders suffer from severe psychiatric stigma: evidence from a sample of 131 patients. Adolesc Health Med Ther 2015; 6:81–89
- 63. Sheehan L, Nieweglowski K, Corrigan P, et al: The stigma of personality disorders. Curr Psychiatry Rep 2016; 18:11
- Chartonas D, Kyratsous M, Dracass S, et al: Personality disorder: still the patients psychiatrists dislike? BJPsych Bull 2017; 41:12–17
- 65. Lewis G, Appleby L: Personality disorder: the patients psychiatrists dislike. Br J Psychiatry 1988; 153:44-49
- Aviram RB, Brodsky BS, Stanley B, et al: Borderline personality disorder, stigma, and treatment implications. Harv Rev Psychiatry 2006; 14:249–256
- Baltzersen Å-L: Moving forward: closing the gap between research and practice for young people with BPD. Curr Opin Psychol 2021; 37:77–81
- 68. Elvins R, Kaess M: Editorial: should child and adolescent mental health professionals be diagnosing personality disorder in adolescence? Child Adolesc Ment Health 2022; 27:101–102
- 69. Paris J: Does childhood trauma cause personality disorders in adults? Can J Psychiatry 1998; 43:148-153
- Porter C, Palmier-Claus J, Branitsky A, et al: Childhood adversity and borderline personality disorder: a meta-analysis. Acta Psychiatr Scand 2020; 141:6–20
- Cloitre M, Garvert DW, Weiss B, et al: Distinguishing PTSD, complex PTSD, and borderline personality disorder: a latent class analysis. Eur J Psychotraumatol 2014; 5:25097
- 72. Scheiderer EM, Wood PK, Trull TJ, et al: The comorbidity of borderline personality disorder and posttraumatic stress disorder: revisiting the prevalence and associations in a general population sample. Borderline Personal Disord Emot Dysregul 2015; 2:11
- 73. Slotema CW, Daalman K, Blom JD, et al: Auditory verbal hallucinations in patients with borderline personality disorder are similar to those in schizophrenia. Psychol Med 2012; 42:1873–1878
- 74. Cavelti M, Thompson KN, Hulbert C, et al: Exploratory comparison of auditory verbal hallucinations and other psychotic symptoms among youth with borderline personality disorder or schizophrenia spectrum disorder. Early Interv Psychiatry 2019; 13:1252–1262
- Slotema CW, Niemantsverdriet MBA, Blom JD, et al: Suicidality and hospitalisation in patients with borderline personality disorder who experience auditory verbal hallucinations. Eur Psychiatry 2017; 41:47–52

- 76. Slotema CW, Bayrak H, Linszen MMJ, et al: Hallucinations in patients with borderline personality disorder: characteristics, severity, and relationship with schizotypy and loneliness. Acta Psychiatr Scand 2019; 139:434–442
- 77. Fleck L, Fuchs A, Moehler E, et al: Child versus adolescent borderline personality disorder traits: frequency, psychosocial correlates, and observed mother-child interactions. Personal Disord (Epub ahead of print, May 12, 2022) doi: 10.1037/per0000574
- 78. Sharp C, Cano K, Bo S, et al: The assessment of personality function in adolescents; in Personality Disorders and Pathology: Integrating Clinical Assessment and Practice in the DSM-5 and ICD-11 Era. Edited by Huprich SK. Washington, DC, American Psychological Association, 2022
- Prevolnik Rupel V, Jagger B, Fialho LS, et al: Standard set of patient-reported outcomes for personality disorder. Qual Life Res 2021; 30:3485–3500
- 80. Gunderson J, Masland S, Choi-Kain L, et al: Good psychiatric management: a review. Curr Opin Psychol 2018; 21:127–131
- Choi-Kain LW, Sharp C: Handbook of Good Psychiatric Management for Adolescents with Borderline Personality Disorder. Washington, DC, American Psychiatric Association, 2021
- Chanen AM: Borderline personality disorder in young people: are we there yet? J Clin Psychol 2015; 71:778–791
- 83. Chanen AM, Nicol K, Betts JK, et al: INdividual Vocational and Educational Support Trial (INVEST) for young people with borderline personality disorder: study protocol for a randomised controlled trial. Trials 2020; 21:583
- 84. Kaess M, Edinger A, Fischer-Waldschmidt G, et al: Effectiveness of a brief psychotherapeutic intervention compared with treatment as usual for adolescent nonsuicidal self-injury: a single-centre, randomised controlled trial. Eur Child Adolesc Psychiatry 2020; 29:881–891
- 85. Kaess M, Brunner R, Chanen AM, et al: Borderline personality disorder in adolescence. Pediatrics 2014; 134:782–793
- Chanen AM, McCutcheon LK, Germano D, et al: The HYPE Clinic: an early intervention service for borderline personality disorder. J Psychiatr Pract 2009; 15:163–172
- 87. Koenig J, Klier J, Parzer P, et al: High-frequency ecological momentary assessment of emotional and interpersonal states preceding and following self-injury in female adolescents. Eur Child Adolesc Psychiatry 2021; 30:1299–1308
- Andrewes HE, Hulbert C, Cotton SM, et al: Ecological momentary assessment of nonsuicidal self-injury in youth with borderline personality disorder. Personal Disord 2017; 8:357–365
- 89. Gunderson JG, Stout RL, Mcglashan TH, et al: Ten-year course of borderline personality disorder: psychopathology and function from the collaborative longitudinal personality disorders study. Arch Gen Psychiatry 2011; 68:827–837
- Zanarini MC, Frankenburg FR, Reich DB, et al: The subsyndromal phenomenology of borderline personality disorder: a 10-year follow-up study. Am J Psychiatry 2007; 164:929–935
- 91. Moran P, Coffey C, Romaniuk H, et al: The natural history of selfharm from adolescence to young adulthood: a population-based cohort study. Lancet 2012; 379:236–243
- McHugh CM, Corderoy A, Ryan CJ, et al: Association between suicidal ideation and suicide: meta-analyses of odds ratios, sensitivity, specificity and positive predictive value. BJPsych Open 2019; 5:e18
- Large MM: The role of prediction in suicide prevention. Dialogues Clin Neurosci 2018; 20:197–205
- 94. Andrewes HE, Hulbert C, Cotton SM, et al: Patterns of nonsuicidal self-injury and their relationship with suicide attempts in youth with borderline personality disorder. Arch Suicide Res 2018; 22:465–478
- 95. Andrewes HE, Hulbert C, Cotton SM, et al: Relationships between the frequency and severity of non-suicidal self-injury and suicide attempts in youth with borderline personality disorder. Early Interv Psychiatry 2019; 13:194–201