Borderline Personality Disorder and Emotion Dysregulation

RESEARCH

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Clinical practice guidelines for the treatment of borderline personality disorder: a systematic review of best practice in anticipation of MAiD MD-SUMC

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Abstract

Background Countries permitting assisted dying for mental disorder as the sole underlying condition (MD-SUMC) find that individuals with Borderline Personality Disorder (BPD) constitute a significant proportion of people requesting MAiD. In anticipation of forthcoming changes to Canadian MAiD legislation, clinical practise guidelines will be important in the decision-making process for eligibility to ensure that evidence-based treatments have been exhausted in making determinations of irremediability.

Aims This is a systematic review of international, English-language treatment guidelines for BPD with two primary objectives: First, to identify areas of consensus and disagreement in best practise for the treatment of this disorder and second, to assess whether the guidelines offered insight into defining irremediable BPD and/or its management.

Methods In accordance with PRISMA guidelines, we performed a systematic review of five databases and identified five clinical practise guidelines in the English language. Two authors independently performed data extraction on the core components of these treatment guidelines, which was synthesized into a narrative review.

Findings Several conclusions may be drawn about the state of the evidence on BPD treatment. First, psychological therapies are broadly considered the preferred treatment modality for BPD but there is no consensus regarding whether any one intervention is preferable. Second, all guidelines suggest pharmacotherapy may have a role in the management of BPD, but the nature and extent of this is disputed. Third, there is no guidance alluding to, defining, or commenting on the management of irremediable BPD. Finally, there are no Canadian treatment guidelines for BPD. The implications of these findings for MAiD MD-SUMC are discussed.

Keywords Borderline personality disorder, Medical assistance in dying, MAiD, BPD, Euthanasia, Irremediability, Treatment resistance, Personality disorders

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Background

On March 17th 2027, Canada may join five countries in which assisted dying is available for mental disorder as the primary condition (Luxembourg, Belgium, The Netherlands, Switzerland, Spain; [1, 2]) when revisions to current Federal legislation are scheduled to come into effect [3]. In reviewing available data from countries where assisted dying for mental disorder is permissible, individuals with BPD have constituted a significant proportion of individuals requesting MAiD. In Belgium and The Netherlands, the primary psychiatric diagnoses for which MAiD is administered are mood or personality disorders (Hageman D, Van Assche K, De Hert M: Levensbeëindiging op verzoek op basis van een psychiatrische aandoening: descriptief onderzoek Nederland en België, submitted). These findings concur with another Belgian study that reported 50% of the participants requesting MAiD were diagnosed with a personality disorder and an additional 29% had both a treatment resistant mood disorder with comorbid personality disorder [4]. Of note, 54% of those with personality pathology were diagnosed with BPD. Findings from the Netherlands similarly report that most individuals receiving MAiD for psychiatric reasons had personality disorders [5]. Thus, the available data suggests that individuals with BPD will likely constitute a significant proportion of MAiD requests when this intervention becomes available in Canada, and elsewhere, as assisted-dying legislation expands. Therefore, guidance for clinicians in this regard is necessary and timely.

BPD is characterized by emotional instability, unstable self-image and interpersonal dysfunction [6] affecting approximately 2% of the general population, 10% of psychiatric outpatients, and 20% of psychiatric inpatients [7]. The term "borderline" originally meant a state that bordered on psychosis [8]. The historical psychoanalytic framework in which the term originated conceptualized psychoses as untreatable because these patients defied analysis [9] and this opinion of intractability endures. However, current data with longitudinal evidence supports that patients with BPD achieve remission [10] with up to 90% of patients recovering by age 50 [11].

There has been significant progress over recent decades in developing and evaluating psychotherapies for individuals with BPD. Currently established evidence-based interventions for BPD include Dialectical Behaviour Therapy [12] Transference-Focused Psychotherapy [13], Mentalized-Based Treatment [14], Schema-Focused Therapy [15] and Systems Training for Emotional Predictability and Problem Solving [16]. However, there are some areas of continuing debate in the management of BPD: specifically, whether all specialized evidence-based therapies perform comparably [17]; generalist versus specialist psychotherapy [18]; and the role of psychopharmacology in management [19].

BPD and irremediability

By very nature of the psychopathology, disordered beliefs and cognitions are likely to bear upon the patient's own understanding of the irremediability of their illness [20]; that is, intolerability of suffering, especially when this intolerability is pathognomonic of the disease state, may be mistaken for evidence of irremediability rather than a reflection of disease severity or treatability. This judgment of irremediability is arguably more imprecise given that there is no consensus on what constitutes "treatment-resistant BPD". This renders decision-making about eligibility for MAiD in the context of BPD immensely challenging, likely idiosyncratic, and entirely unsystematized. The risk of overestimating irremediability is especially elevated in this patient population given that BPD is a highly stigmatized disorder that has been historically regarded with limited prospects of improvement [21, 22]. There are also considerations regarding the general clinical course of BPD, with evidence that the majority of patients with BPD remit with time [23]. Given that remissions are possible later in the course of the disorder, this renders decision-making about irremediability challenging in the context of BPD, in particular.

The question of whether irremediability for mental disorders is fundamentally knowable is an immensely important debate on the ontologic and epistemic limitations of psychiatry, especially in the context of MAiD. Our position on irremediability in the context of MAiD evaluations is a functional definition rather than an ontological one, driven by the necessity of developing a framework for assessment rather than a statement about the existence of irremediability in mental disorder itself. One of the challenges in determining irremediability is that it is inherently a prospective notion that is assessed retrospectively [24]. For example, a recent study on Dutch Psychiatrists' experiences of evaluating irremediability for the purpose of MAiD found that assessors frequently relied on failed past treatments in defining irremediable suffering. In addition, assessors also regarded treatment guidelines as valuable resources in making these determinations. One of the recommendations from the Expert Panel on MAiD and Mental Illness in Canada similarly suggests that assessors should reference past treatments and their outcomes in determining incurability [3]. However, there is a need for the development of some evidence-based, disorder-specific criteria derived from clinical consensus in advance of these changes to legislation or we risk relying entirely on individual opinion in the assessment of irremediability. Mehlum et al. [25] have asserted the need for adherence to clinical practise guidelines (CPGs) in the decision-making process for

MAiD eligibility when assessing patients diagnosed with BPD to ensure that evidence-based treatments have been exhausted before making determinations of irremediability. CPGs are "systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances" [26].

Current study

The present study is a systematic review of international, English-language treatment guidelines for BPD to establish a starting point for updated North American guidelines and to facilitate the development of a decision-making framework for MAiD eligibility. First, we aim to identify areas of consensus in treatment approaches such

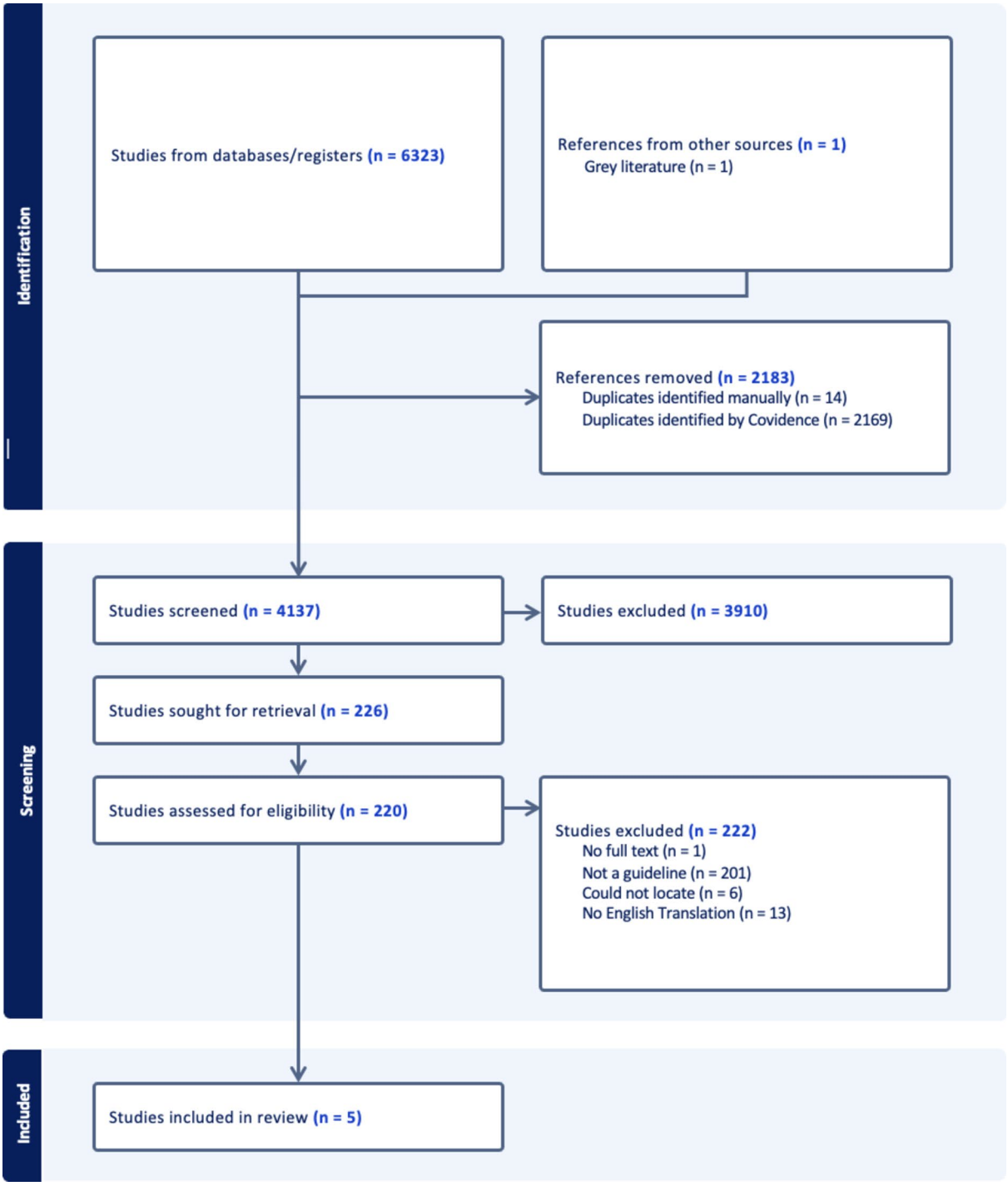

Fig. 1 PRISMA flow diagram of study extraction

that clinicians may evaluate whether requests are being made after having been exposed to appropriate interventions with suitable duration, frequency, and other relevant parameters as per best practise. We also intend to elucidate areas of conflict among treatment guidelines regarding BPD management. Second, we endeavour to qualify what constitutes "treatment-resistant" BPD according to available guidelines, how to assist in determining irremediability, and whether the existing guidelines offer any guidance on management of this population. We anticipate this research will be theoretically and practically significant in the treatment and management of BPD more generally, but especially in the context of anticipated changes to MAiD eligibility in Canada.

Methods

This review was completed in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [27]. MEDLINE, EMBASE, the Cochrane Library, Web of Science, Google Scholar, and PsycINFO databases were searched on May 5, 2022 by author HA. Search terms included the following for *Borderline Personality Disorder*: Borderline personality disorder, borderline states, borderline personality symptoms, borderline personality features, BPD, Emotionally unstable personality disorder, borderline Pattern, and borderline PD. Search terms for *guidelines* were guidelines, practise guidelines, standards, consensus, recommendat*, protocol, best practi*, and treatment guidelines. Search terms were intentionally broad to ensure capture of all relevant articles. The initial search yielded 6323 articles, which were imported to Covidence, a systematic review software. After removing duplicates ($n = 2183$), two authors (HA, PL) screened titles and abstracts for the remaining 4136 articles. Of these, 35 articles proceeded to full text review. Only five of these articles were determined to be appropriate for this review based on inclusion criteria through a consensus discussion after independent review (Fig. 1). Articles were excluded if they were narrative or systematic reviews, single-authored, or written in a non-English language. The guidelines yielded by this search were cross-referenced with a pre-existing list of known guidelines on the treatment of BPD, and no additional articles were identified or found to have been omitted by this bottom-up search strategy. Inclusion and exclusion criteria for this review were guided by the "PICAR" framework (Table 1).

The primary authors (HA and PL) performed independent data extraction on all guidelines using an adapted version of the Cochrane data collection template for intervention reviews [29]. Data extraction included intended population attributes, key recommendations, types of interventions, intervention duration and frequency (psychotherapy), and intervention class and dosage (pharmacotherapy). As per PRISMA guidelines, each guideline was assessed for risk of bias using the AGREE GRS tool. This tool provides a rating from 1 to 7, where a score of 1 denotes the lowest quality and a score of 7 indicates the highest quality in each of the following areas: Process of development, Presentation style, Completeness of reporting, Clinical validity, and Overall Assessment. Due to the small number of available CPGs, we did not exclude studies based on evidence ratings. Data were synthesized by the lead author (HA) using a narrative synthesis approach of extracted data from both independent reviewers, with emphasis on recent CPGs (i.e., published after 2000). A more structured or formalized approach such as thematic analysis was not deemed appropriate due to insufficient data to demonstrate trends [30].

Table 1 PICAR framework with inclusion criteria

PICAR Component	Eligibility Criteria
Population, clinical indication(s) and condition(s)	Individuals aged 18 + with diagnosed Borderline Personality Disorder.
Interventions	All interventions pertaining to the treatment of Borderline Personality Disorder are of interest
Comparator(s), Comparison(s), and (key) Content	All comparisons are of interest Only CPGs pertaining to the treatment of Borderline Personality Disorder; if pertaining to general personality pathology, must have separately analyzed BPD.
Attributes of eligible CPGs	**Language**: English (due to author's native language) **Publication year**: Since 1980 due to publication of DSM-III and diagnostic considerations **Scope**: National or International **Clinical Orientation**: Treatment or management **Developing/publishing organisation**: Must be developed or published by a scientific society or professional body (i.e., no single author publications) **Country of Publication**: No limitations **Minimum Quality of Evidence**: No AGREE II minimum score due to small sample size and high quality CPGs do not necessarily yield valid or implementable recommendations [28].
Recommendations	Only CPGs with recommendations on the treatment and/or management of BPD (based on definition of CPG in this paper)

Results

Study characteristics

Our systematic review resulted in five English-language CPGs; these were from the American Psychiatric Association (APA, [31]); World Federation of Societies of Biological Psychiatry (WFSBP, [32]); National Health

and Medical Research Council (NHMRC, [33]); Project Air [34]; and, the National Institute for Health and Care Excellence (NICE; [35]). Of these, Project Air is classified as grey literature. However, the APA released a working draft of their updated guidelines during the preparation of this review (May 15, 2023), and because the new guidelines were not finalized until December 10, 2024 (see https://www.psychiatry.org/news-room/news-releases/updated-borderline-personality-disorder-guideline; [36]), we elected not to supplant the published recommendations with recommendations from the draft document, but have instead indicated where the updated recommendations diverge from the original published APA guidelines. NHMRC displays a warning that these guidelines have been rescinded but no further information is available.

Quality assessment (Agree Ratings)

Three resources (NHMRC, NICE, and Project Air) were given an overall rating of 5. One resource (APA) was not amenable to the AGREE rating system due to lack of data on which the score is predicated. One CPG (WFSBP) was provided an overall rating of 1.

Recommendations on pharmacotherapy

Summarized in Tables 2, 3, 4, 5 and 6. Most guidelines felt pharmacotherapy was not suitable as a primary treatment for BPD, but may be appropriate for affective symptoms, in crisis, and for the treatment of comorbid disorders. Polypharmacy was discouraged by all guidelines except the original APA guideline. Most guidelines cautioned against the use of monoamine oxidase inhibitors and tricyclic antidepressants due to concerns about intentional toxic ingestion.

Recommendations on psychotherapy

Summarized in Table 7. Psychological therapies were generally regarded as first-line treatments for BPD, with most guidelines emphasizing a longer treatment course. There was no consensus on whether any psychological intervention was superior.

Table 2 WFSBP guidelines on pharmacotherapy in management of BPD

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
WFSBP (International) 2007	Affective disturbance and mood reactivity	SSRIs first line	Side effect profiles, comorbid health conditions and potential for overdose in irreversible MAOIs and TCAs
	Cognitive-perceptual symptoms, anger, impulsivity and behavioural dyscontrol	• Atypical neuroleptics and second-generation antipsychotics • Atypical first-line for cognitive-perceptual symptoms	
	Impulsive, aggressive behaviour	• Mood stabilizers • Divalproex sodium (anger/hostility, aggression, - interpersonal sensitivity) • Lamotrigine and topiramate for anger	
Pharmacotherapy to Avoid	Benzodiazepines strongly discouraged		
Polypharmacy	Discouraged		
Combining treatment modalities	No specific prescription for combining pharmacotherapy and psychological therapy due to lack of evidence		
Adolescents	Same principles as in adults with greater side effect risk. With nonresponse to SSRIs and dominant impulsive-aggressive behaviour, atypical neuroleptics (specifically risperidone) indicated		
Treatment Resistance BPD	No recommendations		
Evidence Base for CPG	Based on literature review from 1980-June 2007; English only. Limitations - exclusion of severely ill patients with comorbid disorders or suicidality		
Quality Assessment	AGREE - GRS Scores Rate the overall quality of this guideline: 2 I would recommend this guideline for use in practice: 1 Overall assessment: 1		

Table 3 NICE guidelines on pharmacotherapy in management of BPD

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
NICE (UK) 2015	Comorbid conditions and crisis management	• Pharmacotherapy only appropriate for short-term crisis management and treatment of co-morbid conditions based on available evidence at the time of publication. Antipsychotic and sedative medication sometimes useful for crisis management (< 1 week). No specific agents recommended. • Consider sedative antihistamines for use in crisis as alternatives to drugs with greater misuse potential or side-effect profiles • No drug treatment for symptom management or disorder	
Pharmacotherapy to Avoid	Amitriptyline (overdose risk)		
Polypharmacy	Discouraged		
Combining treatment modalities	No specific prescription for combining pharmacotherapy and psychological therapy due to lack of evidence		
Adolescents	Risks versus benefits of psychotropic medications in adolescents even less favourable than in adults		
Treatment Resistance BPD	No recommendations		
Evidence Base for CPG	Psychological Treatments: 1991–2008 Pharmacological Treatments: 1982–2008		
Quality Assessment	AGREE - GRS Scores Rate the overall quality of this guideline: 5 I would recommend this guideline for use in practice: 5 Overall assessment: 5		

Discussion

The objective of this review was to elucidate areas of agreement among existing guidelines regarding what constitutes evidence-based interventions for BPD in anticipation of forthcoming changes to MAiD legislation. Findings from our systematic review of CPGs in the English language for the treatment of BPD supported several conclusions. First, most guidelines felt that psychological therapy was the preferred treatment modality for BPD, and that short-term interventions were of limited use. However, there was no consensus regarding whether a single psychological intervention was more effective than others. For example, although both WFSBP and NICE reported good evidence for DBT for self-harm and suicidality, NHMRC indicates that most treatments (including treatment as usual) had a positive effect on this outcome measure, with data favouring the use of mentalization therapy. Project Air similarly felt that all psychosocial interventions were equally effective for BPD management but was less prescriptive in its recommendations overall. Regarding length of interventions, most guidelines recommended longer interventions, ranging from a minimum of three months to one year, with weekly sessions. These recommendations should be tempered by more recent research suggesting treatment duration of 3 to 6 months as noninferior to longer interventions in BPD [37, 38]. Both APA and NHMRC suggested combined group and individual therapy as more effective than either as a standalone intervention. However, the updated draft APA guidelines no longer comment on this.

Second, the nature and scope pharmacotherapy in the management of BPD was disputed. While most guidelines discouraged pharmacotherapy as primary treatment, there was acknowledgment that pharmacotherapy has some utility in highly circumscribed situations. There was some consensus that pharmacotherapy has utility for treating at least one of acute crises, comorbid disorders (e.g., depression), mood reactivity and affective disturbances. However, there was no guidance with respect to treatment resistance, complex multi-morbid presentations, family approaches, or approach to the management of acute crises in the Emergency Department. Except for APA, all other guidelines advised against the use of polypharmacy in this population. However, the updated APA draft guidelines clarified their stance on polypharmacy such that they are not only in keeping with other guidelines, but also incorporate deprescription planning and medication review as a component of the overall treatment strategy. Most guidelines also commented on the risk of overdose in this population, with specific concern for monoamine oxidase inhibitors and tricyclic antidepressants. Notably, there were conflicting recommendations regarding the use of psychological and pharmacotherapy as adjunctive treatments. For example, both NICE and NHMRC discouraged this, but APA recommended psychotropic interventions as important to combine with psychotherapy. The updated APA guidelines

Table 4 NHMRC guidelines on pharmacotherapy in management of BPD

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
NHMRC (Australia) 2012		• Pharmacotherapy not effective in altering nature and course of disorder. Evidence does not support use of pharmacotherapy as first-line or exclusive treatment for BPD. May be used as time-limited adjunct treatment only for specific symptom management, or in acute crisis situations. • No reliable recommendation on pharmacotherapy for specific outcomes due to less than three reliable RCTs for all agents. • Recommends consensus among prescribers for any agents that are used	• General characteristics of effective pharmacotherapy: consider potential interactions with alcohol and other substances, drug-drug interactions with prescription and non-prescription medications, potential overdose with certain agents (example: MAOIs, tricyclic antidepressants, lithium). • Avoid polypharmacy and review efficacy and discontinue a drug before beginning another. • For crisis state, make sure to specify dose and duration.
Pharmacotherapy to Avoid	No specific agents identified		
Polypharmacy	Discouraged		
Combining treatment modalities	Should not be routine practise to combine psychological and pharmacotherapy unless for specific symptom indications due to lack of evidence for additive effect.		
Adolescents	People aged 14–18 years with BPD or clinically significant features of BPD should be offered time-limited structured psychological therapies that are specifically designed for BPD. Involve families in management to the extent possible. No available evidence on pharmacological therapy for individuals under 18.		
Treatment Resistance BPD	Referred to "Complex and severe BPD" but no recommendations due to a lack of definitional consensus and insufficient evidence.		
Evidence Base for CPG	Relied on source guideline (evidence up to 2008) and for clinical questions outside the scope of this, conducted a search of the literature for level I to level III evidence, English only, published between 2001–2011.		
Quality Assessment	AGREE - GRS Scores Rate the overall quality of this guideline: 6 I would recommend this guideline for use in practice: 6 Overall assessment: 6		

draft states that while psychotherapy is the gold standard for treatment for BPD, pharmacotherapy should only ever be used as an adjunct.

Third, and most pertinent to MAiD MD-SUMC, was the finding that there was no specific guidance alluding to, defining, or managing irremediable BPD in any CPG. However, there was reference to the importance of considering co-morbid psychiatric disorders that may be impacting the person's prognosis or contributing to their suffering. NHMRC made reference to "complex and severe BPD" but made no recommendations due to lack of definitional consensus and evidence. When published, the updated APA guidelines will be the most up-to-date clinical recommendations on BPD management and should consider incorporating some approach to irremediability.

There are also general comments on the state of evidence for the management of BPD, especially as it pertains to the North American context. Based on our review, there are only five CPGs available in English for the treatment of BPD, and no Canadian guideline. Of these five, two guidelines (NHMRC and APA) have been either rescinded or display a warning that they are no longer current, although APA is in the process of developing new guidelines for which a preliminary draft has been made available and which we have incorporated into our review. We have retained these rescinded guidelines in this review in the interest of providing an accurate survey of the existing state of evidence for English-speaking contingents. Moreover, among this small number of CPGs, the recommendations regarding the management of BPD are conflicting and not infrequently contradicting. Certainly, some of this may be attributable to the evidence base consulted for the development of the CPG. For example, WFSBP guidelines are still considered to be current, but are based on literature from 1980 to 2007, and exclude severely ill patients with comorbid disorders or suicidal ideation. Given the exceedingly high rate of comorbidity in this population (i.e., [39, 40]) and that chronic suicidality is a feature of BPD [7, 41] we wonder how appropriate these recommendations are for the management of BPD in clinical settings in the real world. The preliminary draft of the APA guidelines, however, provides some grounds for optimism as the updated recommendations appear to be more consistent

Table 5 APA guidelines on pharmacotherapy in management of BPD

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
APA (United States) 2001	Affective dysregulation (mood lability, rejection sensitivity, inappropriate intense anger, depressive "mood crashes," and temper outbursts)	• SSRIs are indicated for this use, and considered first-line when affective dysegulation appears as disinhibited anger and affective symptoms. • Fluoxetine (20-80 mg), sertraline (100-200 mg), venlafaxine (300 mg). Maintenance treatment of 1-3 years may help to retain improvement. Reasonabletrial of SSRI in BPD defined as 12 weeks. • MAOIs effective but not first-line due to poor adherence to dietary restrictions. Useful for atypical depression, considered second-line treatment for affective dysregulation. • Mood stabilizers are second-line (or adjunctive) treatment for affective dysregulation	For MAOIs: Adherence to required dietary restrictions problematic **Updated guidelines comment:* *1) psychotherapy is primary treatment modality for BPD. Optimize psychotherapy before initiating trial of psychotropic medication.* *2) Review past trials of psychotropic medications; if response minimal, re-assess need for psychopharmacologic intervention.* *3) Psychotropic medication should be time-limited, symptom specific, and an adjunct to psychotherapy* *4) Avoid frequent dose escalation or medication changes in response to crises* *Pharmacotherapy may address: affective instability, impulsivity, or psychotic-like symptoms in individual patients, mitigate short-term risks of self-harm*
	Impulsive aggression, anger, irritability, self-injurious behavior, poor global functioning	• Grade A evidence for Fluoxetine and sertraline	
	Affective dysregulation manifesting as anxiety	• May add benzodiazepine with SSRI	
	Patients with severe behavioural dyscontrol.	• SSRI are first line, with augmentation with low dose neuroleptics if patient is danger to self. • Efficacy of SSRI may be augmented with addition of lithium • Switch to MAOI if SSRI ineffective	
	Impulsive aggression in patients with related personality disorders, impulsive behavior in patients with borderline personality disorder.	• Grade A evidence for lithium carbonate for this indication • Can be used as primary or adjunctive treatment (overlaps with treatment of affective dysregulation domain); older literature does not address borderline personality disorder; toxicity a concern in overdose; blood monitoring necessary	
	Behavioral dyscontrol, anger/hostility, assault, self-injury.	• Haloperidol has Grade A evidence for this indication • Nonspecific effects on impulsivity as adjunctive agent; more specific effects on anger; rapid onset of effect provides immediate control of escalating impulsive symptoms	**Clozapine may be used for "extremely ill hospitalizedpatients"*
	Cognitive-perceptual symptoms and the acute managementof global symptom severity, with specific efficacy forschizotypal symptoms and psychoticism, anger, and hostility	• Low dose neuroleptics	**May consider low dose of second-generation antipsychotic for psychosis, high levels of impulsivity, or agitation*
Pharmacotherapy to Avoid	No comment		**Caution against polypharmacy - medication review advised every 6 months*
Polypharmacy	No comment		
Combining treatment modalities	Pharmacotherapy is an important adjunct with Psychotherapy.		
Adolescents	No comment		
Treatment Resistance BPD	No comment		
Evidence Base for CPG	Information not available		

Table 5 (continued)

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
Quality Assessment	AGREE - GRS Scores Rate the overall quality of this guideline: 2 I would recommend this guideline for use in practice: 1 Overall assessment: 1		

*indicates guidance from updated APA draft guidelines

Table 6 Project air guidelines on pharmacotherapy in management of BPD

	Clinical Indication	Recommended Pharmacotherapy	Other Considerations
Project Air (Australia) 2015		Pharmacotherapy not recommended for primary treatment of BPD but may be used for symptom management and comorbid conditions	
Pharmacotherapy to Avoid	No comment		
Polypharmacy	Not recommended		
Combining treatment modalities	No comment		
Adolescents	No comment regarding psychopharmacological treatment in this group.		
Treatment Resistance BPD	No comment		
Evidence Base for CPG	No discussion of process of evidence review and inadequate information about process of CPG development.		
Quality Assessment	AGREE - GRS Scores Rate the overall quality of this guideline: 5 I would recommend this guideline for use in practice: 5 Overall assessment: 5		

with other available CPGs, especially with respect to pharmacotherapy.

Recognizing the limitations of existing guidelines, irremediability in psychiatry is the subject of both ontological debate and considerable diagnostic challenge that is unlikely to be definitively addressed through CPGs. We acknowledge the latter concerns in our recent paper on assessing patients with BPD for MAiD regarding irremediability [42], including issues related to definition, prognosis, course, and lack of treatment response. We propose a functional approach to the assessment of irremediability in BPD which includes assessing severity of illness, and the use of retrospective information to determine treatment-resistance. Although the DSM-5's categorical nosology does not have a severity criterion for BPD, the Alternative Model for Personality Disorders Criterion A and the ICD-11 model of personality disorders incorporate assessments of severity. However, research using these alternate models in BPD is proceeding but still limited, and there are challenges to implementation [43].

The literature on models of staging and profiling in mental disorders may also be relevant for assessments of irremediability in the context of MAiD MD-SUMC [44] but there is presently insufficient evidence for models of staging and stepped care approaches with BPD [37, 45]. There may also be other ways to characterize complexity (e.g., concept mapping; [46]) but there remains, at present, no clear method to evaluate or address irremediability in borderline patients. Moreover, while treatment-resistance in depression has often been invoked as a prototype of irremediability in the context of MAiD, there remains considerable debate about what irremediability means in this context (see [44]), as well as in psychiatry more generally [47]. Assessments of irremediability are certainly complicated by psychiatric comorbidity, physical comorbidities, substance use [42], and iatrogenic polypharmacy, particularly in BPD. More broadly, risk stratification in the context of suicidal ideation and behaviour will be critical in determining eligibility for MAiD MD-SUMC. While acute suicidality would likely impact eligibility, chronic suicidality is generally modifiable but may not be sufficient grounds for exclusion. If suicidality is not addressed, this may impact determinations of irremediability [44] but further guidance on chronic suicidal ideation in the context of MAiD is necessary.

The findings of this review must be tempered by several limitations. First, this review is constrained by a small sample size of only five guidelines. We acknowledge that there are additional international guidelines in non-English languages (e.g., Swiss, German; [48, 49]) for which there are no English translations. However, limiting this review to English-only CPGs was an intentional decision to both acknowledge and summarize the existing state of evidence for BPD management in English-speaking

Table 7 CPG guideline recommendations on psychotherapy in management of BPD

	Outcome Variable (s)	Recommended Psychotherapy	General Considerations
WFSBP (International) 2007	Self-harming, parasuicidal behaviour, lower depression, hopelessness, poor social functioning, impulsivity and alcohol us	Dialectical Behaviour Therapy (DBT; Level A evidence)	
	Affective and borderline symptoms, dysfunctional beliefs	Cognitive Behavioural Therapy (CBT; Level C evidence)	
	Clinical improvement	Schema Focused Therapy (SFT; Level C evidence)	
	Clinically relevant domains of functioning	Transference Focused Therapy (TFT; Level C evidence)	
	Deliberate self-harm	Manual-assisted cognitive therapy (MACT; Level D evidence)	
	Inpatient days, depression, anxiety and global severity of psychopathological symptoms	Mentalization-Based Therapy (MBT; Level D evidence)	
NICE (UK) 2015	Self-harm and suicidal acts	1. MACT has some effect on these variables – no effect on other BPD symptoms 2. CBT, Interpersonal Therapy, SFT, Psychodynamic, Cognitive Analytic Therapy ■ There is little evidence for effectiveness of these psychotherapies in treatment of BPD as studies are uncontrolled	Minimal evidence for individual psychological therapies due to study design Minimum twice weekly sessions recommended
	Anxiety, depression and symptoms of borderline personality disorder	DBT and MBT • Some evidence for effect on these variables, evidence quality moderate	Discourages short psychological interventions (< 3 months' duration) unless structured, theoretically integrated and consistent with guideline
	Self-harm, suicidal ideation	• Some benefit – comprehensive DBT program particularly effective for reducing self-harm in women	
	Hospital admissions and ED visits	• Some evidence of reduction	
NHMRC (Australia) 2012	Anger, depression, anxiety	Some evidence for psychotherapy, with mentalization therapy having larger effect than other therapies	Minimal evidence for individual psychological therapies due to study design Minimum twice weekly sessions recommended
	Quality of Life	Most psychological treatments, including those not improving other clinical measures	Discourages short psychological interventions (< 3 months' duration) unless structured, theoretically integrated and consistent with guideline
	Self-harm and risky behaviour	Most treatments had a positive effect on this measure (including Treatment as usual and General Psychiatric Management); mentalization therapy demonstrated greatest impact relative to control Weak evidence to suggest Cognitive Analytical Therapy useful in younger individuals and Systems Training for Emotional Predictability and Problem Solving	
	Service use	Minimal evidence, psychological therapies appear to show some reduction in service utilization	
	Personal and social functioning	Most psychological therapies showed improvement on this dimension	

Table 7 (continued)

	Outcome Variable (s)	Recommended Psychotherapy	General Considerations
APA (United States) 2001		Psychoanalytic/psychodynamic therapies, DBT - Individual psychodynamic psychotherapy as standalone intervention has some support **Updated draft guidelines suggest no evidence of superiority of any one psychotherapeutic modality in adolescents or adults – selection of a structured psychotherapy should reflect individual symptoms, resource requirements and availability*	Features of effective interventions: (1) Individual meetings weekly; (2) Minimum of one weekly group session; (3) Practitioners should meet to consult/supervise. Unlikely to see benefit prior to 1 year of intervention, with patients frequently requiring longer treatment period. **Updated guidelines mention structured psychotherapies have associated manual and incorporate ongoing supervision and fidelity in treatment delivery. Updated guidelines outline typical duration of most structured therapies as 12 months, with the exception of STEPPS (20 weeks)*
		Some evidence that CBT (and DBT as a modification) is effective in BPD on a number of outcome measures including trait anger, parasuicidality, and functioning **Updated guidelines comment on DBT only as targeting suicidality, stress tolerance, emotion dysregulation and interpersonal effectiveness* Combined group and individual therapy recommended over either modality as standalone **Recommendation removed in updated draft guidelines* Family and couples therapy have benefit but not suggested as standalone interventions. **No comment on this in updated draft guidelines*	Longer treatment modalities and treatment windows recommended **Updated guidelines outline typical duration of treatment as minimum of 12 months for most structured psychotherapy, with the exception of STEPPS (20 weeks)*
Project Air (Australia) 2015		DBT, MBT, TFP, CAT, SFT, General Psychiatric Management - all equally effective. Generally duration of treatment minimum of one year with weekly meetings	Not a prescriptive guideline, states psychotherapy is sole treatment for personality disorders in general

*indicates guidance from updated APA draft guideliness

contingencies. Relatedly, we anticipate that the exclusive reliance on CPGs – as opposed to randomized controlled trials or other evidence – may be considered an additional limitation. However, CPGs are, by definition, recommendations based on a systematic review of existing evidence [50]. Given suggestions that CPGs should constitute an important part of determining MAiD eligibility [25], it is imperative to evaluate their quality and whether they facilitate (i.e., via consensus) or hinder (i.e., via contradiction) the decision-making process. Our review suggests that existing English-language CPGs for the treatment of BPD are inadequate for these purposes due to being either themselves outdated, based on evidence that is not contemporary, and/or stringent exclusion criteria that limits their utility in clinical settings. The poor consensus among these various publications is also concerning and poses challenges for clinicians who may look to these for decision-making in MAiD. Last, this review was based on English language guidelines given the focus on changing legislation in Canada, as well as authors' native language. We are aware that there are additionally a small number of published guidelines in European countries, including Denmark [51], Finland and Germany. However, none of the English-language guidelines are from countries where MAiD for mental disorders is available.

Conclusions

Our review suggests that the current state of evidence on BPD treatment may hinder reliable decision-making about MAiD eligibility and contribute to inequities in access. Inequitable access includes both overly restrictive or overly permissive practises. The most significant concern lies in the risk of overestimating irremediability, especially in this patient population given that BPD is a highly stigmatized disorder that has been historically regarded with limited prospects of improvement. Future efforts must prioritize research on what constitutes irremediable BPD, as well as an approach to treating recalcitrant BPD symptomatology. In addition, there is a need to update existing CPGs on the management of BPD, and ensure that the evidence on which recommendations are based reflects the complexity of the disorder as encountered in the real world.

Abbreviations

MAiD	Medical Assistance in Dying
CPG	Clinical Practise Guidelines
BPD	Borderline Personality Disorder
WFSBP	World Federation of Societies of Biological Psychiatry
APA	American Psychiatric Association
NHMRC	National Health and Medical Research Council
NICE	National Institute for Health and Care Excellence

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Authors' contributions
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