Treatment of Personality Disorders in Adults with or without Comorbid Mental Health Conditions: Clinical Effectiveness and Guidelines
SUMMARY OF ABSTRACTS  Treatment of Personality Disorders in Adults With or Without Comorbid Mental Health Conditions

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Acknowledgments:

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Research Questions

1. What is the clinical evidence regarding the treatment and management of adults with personality disorders who may or may not have comorbid mental health conditions?

2. What are the evidence-based guidelines associated with the treatment and management of adults with personality disorders who may or may not have comorbid mental health conditions?

Key Findings

Three systematic reviews and 14 randomized controlled trials were identified examining the clinical evidence regarding the treatment and management of adults with personality disorders using psychotherapeutic methods. Three of the RCTs included patients with comorbid depression or post-traumatic stress disorder.

Methods

A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2013 and February 13, 2018. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

<table>
<thead>
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<th>Table 1: Selection Criteria</th>
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<tr>
<td><strong>Population</strong></td>
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<td><strong>Intervention</strong></td>
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| **Comparators**             | Q1: Psychotherapy  
                          Pharmacological therapy;  
                          Wait list  
                          Q2: No comparator |
| **Outcomes**                | Q1: Effectiveness of treatment (primarily interested in which condition [if any] should be treated first, the personality disorder or the comorbid mental health condition [PTSD or depression], how well the treatment or management strategies work, etc.)  
                          Q2: Guidelines |
| **Study Designs**           | Health technology assessments reports, systematic reviews, meta-analyses, randomized controlled trials, evidence-based guidelines |
Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials and evidence-based guidelines.

Three systematic reviews and 14 randomized controlled trials regarding the treatment and management of adults with personality disorders with or without comorbid post-traumatic stress disorder and/or depression were identified. No relevant health technology assessment reports or evidence-based guidelines were identified.

Additional references of potential interest are provided in the appendix.

Overall Summary of Findings

Three systematic reviews (SR)\textsuperscript{1-3} and 14 randomized controlled trials (RCT)\textsuperscript{4-17} were identified that examined the clinical evidence regarding the treatment and management of adults with personality disorders (PD) using psychotherapeutic methods. Three of the RCTs\textsuperscript{15-17} included patients with comorbid depression\textsuperscript{15,17} or post-traumatic stress disorder (PTSD).\textsuperscript{16} Study details are included in Tables 2 and 3.

Psychotherapeutic interventions (type not specified) were observed to be more effective than control interventions for the treatment of borderline personality disorder (BPD) of differing severity in one SR.\textsuperscript{2} Although the authors of one SR\textsuperscript{2} found that more intensive treatment did not result in better outcomes than less intensive treatment, the authors of a second SR\textsuperscript{3} found that self-harm was significantly reduced and social functioning was significantly improved when patients had access to group therapy and when individual therapy frequency was more than one time per week. A psychodynamic approach was also observed to be effective in treating BPD symptoms in one SR.\textsuperscript{1}

A dialectical behavioural therapy (DBT) approach to the treatment of BPD was found to be effective in treating BPD symptoms in one SR\textsuperscript{1} and in two RCTs.\textsuperscript{4,8} Specifically, DBT skills training was observed to be effective in reducing suicidality,\textsuperscript{4} and non-suicidal self-injurious behavior\textsuperscript{4,8} when compared with wait-list\textsuperscript{4} or with DBT without skills training.\textsuperscript{8}

Based on RCT evidence, other psychotherapeutic treatment options found to have some effectiveness in patients with personality disorders were:

- Democratic therapeutic community treatment was more effective than treatment as usual (TAU), particularly for measures of aggression\textsuperscript{5}
- Manualized psychoanalytic-interactional therapy and non-manualized psychodynamic therapy by experts were more effective than TAU and wait list for improving levels of personality organization and psychological distress in in-patients with cluster-B PDs\textsuperscript{5}
- Both cognitive rehabilitation and psychoeducational group interventions improved daily functioning and clinical symptoms of BPD\textsuperscript{9}
- Schema therapy was associated with increased recovery from cluster-C PDs when compared with TAU and clarification oriented therapy\textsuperscript{10}
- Emotion regulation group therapy was an effective add-on to TAU for female patients with self-harm behaviours\textsuperscript{11}
- Motive-oriented therapeutic relationship add-on to manualized ‘short variant’ of general psychiatric management may be promising for patients with BPD.\textsuperscript{12}
- Cognitive analytic therapy was more effective than TAU for patients with PD.\textsuperscript{13}
- Both ‘intensive’ mentalization-based psychotherapy (MBT) and less intensive group psychotherapy had effectiveness in treating BPD after 2 year follow-up.\textsuperscript{14}

Psychoeducation and problem-solving therapy was not found to be an effective add-on therapy to treatment as usual.\textsuperscript{7}

**Patients with Comorbid Depression or PTSD**

For patients with comorbid cluster C personality disorders and depression, the authors of one RCT observed that depression treatment as an add-on to PD treatment may be beneficial.\textsuperscript{15} Authors of another RCT\textsuperscript{17} found that behavioural activation therapy was more effective than antidepressant medication in treating depression in patients with and without cluster-C personality disorders. Further, the PD was not associated in a difference in treatment response.\textsuperscript{17}

For female in-patients with PTSD and comorbid BPD, a dialectical behavior therapy approach was found to be more effective than treatment as usual on the wait list.\textsuperscript{16}

No relevant evidence-based guidelines were identified.

**Table 2: Summary of Included Studies of the Clinical Evidence Regarding the Treatment and Management of Adults with Personality Disorders**

<table>
<thead>
<tr>
<th>First Author, Year</th>
<th>Study Design Details</th>
<th>Patient Group Details</th>
<th>Intervention, Comparator</th>
<th>Results and Author Conclusions</th>
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<tr>
<td>Cristea, 2017\textsuperscript{1}</td>
<td>SR and MA of RCTs 33 trials examining 2,256 participants included</td>
<td>Adults diagnosed with BPD</td>
<td>Psychotherapy interventions&lt;br&gt;Control interventions&lt;br&gt;Psychotherapy add-on to treatment as usual vs treatment as usual also examined and reported separately</td>
<td>Post-test results:&lt;br&gt;- For combined BPD outcomes (symptoms, self-harm, suicide), psychotherapy interventions and add-on psychotherapy interventions were ‘moderately’ better than control interventions (g = 0.32; 95% CI, 0.14-0.51 and g = 0.40; 95% CI, 0.15-0.65)&lt;br&gt;- Psychotherapy superior to control regardless of add-on status for self-harm (g = 0.32; 95% CI, 0.09-0.54), suicide (g = 0.44; 95% CI, 0.15-0.74), health service use (g = 0.40; 95% CI, 0.22-0.58), and general psychopathology (g = 0.32; 95% CI, 0.09-0.55)&lt;br&gt;- BPD relevant outcomes at follow-up (N = 13 trials):&lt;br&gt;  - Dialectical behavior therapy (g = 0.34; 95% CI, 0.15-0.53) and psychodynamic therapy (g = 0.41; 95% CI, 0.12-0.69) were...</td>
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<tr>
<td>Links, 2017</td>
<td>SR of 5 years of literature 16 articles included</td>
<td>Patients with BPD</td>
<td>Psychotherapy interventions Comparator unclear</td>
<td>Psychotherapy was beneficial to patients with BPD of various severities. More ‘intensive’ therapies were not more effective than less intensive therapies. More research needed to examine outcomes for comorbid BPD and PTSD.</td>
</tr>
<tr>
<td>Omar, 2014</td>
<td>SR examining the impact of treatment duration, treatment frequency, and access to group therapy 12 RCTs</td>
<td>Patients with BPD</td>
<td>Psychotherapy interventions Comparator unclear</td>
<td>Reductions in self-harm and depression were statistically significant when the number of psychotherapy sessions were more than 1 per week and when there was access to group therapy, as were improvements in social functioning. Further research suggested regarding short vs long-term interventions.</td>
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| McMain, 2017       | Adjunct therapy Assessments at 10, 20, 32 weeks | Patients with BPD at high risk for suicide 84 patients : 42 randomized to each group | Brief DBT skills training (20 weeks duration) Wait-list | 32 week results:  
  - Patients in the DBT group had more reduction in suicidal behaviours and on NSSI* than those in the wait list group ($P < 0.0001$)  
  - Improvements in anger, distress tolerance and emotion regulation were higher in the DBT group than wait list  
  Authors concluded that brief DBT could be a useful intervention for patients with BPD at high risk for suicide. |
| Pearce, 2017       | Outcome measurement at 12 and 24 months following randomization | Patients meeting criteria for a personality disorder | DTC Treatment as usual | 12 and 24 months:  
  - In-patient psychiatric use was low in both groups (no difference) |
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| Leichsenring, 2016 | Occurred within an in-patient facility Two groups were randomized; a third 'control' group of patients either receiving treatment as usual or waiting for treatment was also examined | In-patients with cluster-B personality disorders 122 patients (n = 64 for manualized intervention; n = 58 for non-manualized) were randomized; 46 patients were further included as controls | Manualized PIT Non-manualized E-PDT Control (treatment as usual or wait list) | 24 months:  
- Self-directed aggression and aggression toward others, as well as satisfaction with care significantly improved in DTC group compared to control
Authors concluded that DTC was more effective that treatment as usual; expressed need for further study. |
| McMurran, 2016 | Superiority trial; multi-site Randomization stopped after 306 people due to adverse events Social Functioning Questionnaire (SFQ) was primary outcome | Adults with personality disorders. N = 306 (n = 154 in treatment group; n = 152 in control group) Mean age: 38 67% women | Psychoeducation and problem-solving therapy (PEPS) as an add-on to usual treatment. PEPS involved 4 individual psychoeducational sessions, 12 group sessions TAU | 72 week follow-up:  
- 73% of PEPS and 65% of TAU participants completed follow-up  
- There were no significant differences in SFQ scores between the PEPS group and TAU group (P = 0.19)  
- There was more self-harm in the PEPS group than the TAU group, however, the difference was not statistically significant (adjusted incidence rate ratio 1.24, 95% CI 0.93 to 1.64)  
Authors concluded that PEPS was not an effective add-on to treatment as usual. |
<p>| Linehan, 2016 | Single blind (assessor blinded) | Women with BPD who had at 2 or more suicide DBT-S DBT-I | Suicide attempts (frequency and severity), suicidal ideation, use of crisis services (due to suicidality), and |  |</p>
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<tr>
<td>Pascual, 2015†</td>
<td>Multicenter, positive controlled trial Follow-up 16 weeks and 6 months</td>
<td>Outpatients with BPD N = 70</td>
<td>Cognitive rehabilitation Psychoeducational group interventions</td>
<td>psychoeducational interventions tended to enhance depressive symptoms. The groups did not seem to differ with respect to functionality following the interventions. Authors concluded that both cognitive rehabilitation and psychoeducational group interventions seemed to improve daily functioning and clinical symptoms for patients with BPD. Additionally, they are likely easy to implement.</td>
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<tr>
<td>Bamelis, 2014‡</td>
<td>Multicenter; single blind Follow-up 3 years (primary outcome was recovery from personality disorder)</td>
<td>Out-patients with cluster C personality disorders N = 323</td>
<td>Schema therapy TAU Clarification-oriented psychotherapy</td>
<td>The number of patients who recovered from their personality disorders was 'significantly' (P not reported) higher in the schema therapy group than TAU and clarification oriented therapy. TAU</td>
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| Gratz, 2014 | 14 week duration plus 9 month un-controlled follow-up | Female out-patients with BPD and recently deliberate self-harm | ERGT add-on to TAU immediately; 14 weeks of treatment | ITT analysis:  
ERGT had ‘significant’ effects on destructive self-harm, self-harm symptoms, emotional dysregulation, BPD symptoms, depressive symptoms, stress symptoms, and quality of life  
Analysis of patients who began ERGT (at any point; n = 51):  
- Patients had ‘significant’ improvements in all outcomes when pre- and post- tests were compared  
- Deliberate self-harm, emotional dysregulation, BPD symptoms, and quality of life further improved through to the 9 month follow-up  
Authors concluded that ERGT add-on therapy was effective and treatment improvements had ‘durability.’ |
| Kramer, 2014 | RCT | Patients with BPD | MOTR add-on to manualized ‘short variant’ of general psychiatric management | ITT analysis:  
- MOTR had ‘global efficacy’ and resulted in reduction of outcomes such as symptoms, interpersonal problems and social problems \( P = 0.05 \)  
- MOTR did not result in reductions in specific BPD symptoms  
Authors called MOTR ‘promising’ and |
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<td>Clarke, 2013</td>
<td>‘Service-based’</td>
<td>Patients with personality disorder N = 78 (n = 38 intervention; n = 40 control)</td>
<td>CAT; 24 sessions TAU; 10 months</td>
<td>Patients in the CAT group had a reduction in symptoms and ‘experienced benefits’ compared to TAU. Those in the TAU group had significant deterioration throughout the treatment period. Authors concluded that CAT was more effective than TAU in improving personality disorder outcomes.</td>
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<td>Jorgensen, 2013</td>
<td>2 years duration</td>
<td>Patients with BPD N = 85</td>
<td>‘Intensive’ (twice weekly) individual and group MBT Biweekly supportive group therapy</td>
<td>N = 58 completed 2 years of treatment Both treatment groups saw significant changes in self-reported measures of general functioning, depression, social functioning, and several BPD diagnostic symptoms. Therapist-rated global assessment of functioning was significantly higher in the MBT group than the control group. There was a trend toward BPD recovery in the MBT group. Authors concluded that both treatment options were effective when administered by ‘well-trained, experienced psychodynamic staff in a well-run clinic.’</td>
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BPD = borderline personality disorder; CAT = cognitive analytic therapy; DBT = dialectical behavior therapy; DBT-I = dialectical behavior therapy individual therapy plus activities (no skills training); DBT-S = dialectical behavior therapy skills training plus case management; DTC = democratic therapeutic community treatment; ERGT = emotion regulation group therapy; E-PDT = psychodynamic therapy by experts; ITT = intention to treat; MA = meta-analysis; MBT = mentalization-based psychotherapy; MOTR = motive-oriented therapeutic relationship; NSSI = non-suicidal self-injury; PEPS = Psycheducation and problem-solving therapy; PIT = psychoanalytic-interactional therapy; PTSD = post-traumatic stress disorder; RCT = randomized controlled trial; SFQ = Social Functioning Questionnaire; SR = systematic review; TAU = treatment as usual; vs = versus.
Table 3: Summary of Randomized Controlled Trials Examining the Clinical Evidence regarding the Treatment of Adults with Comorbid Personality Disorder and Depression or Post-Traumatic Stress Disorder

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<tr>
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| Renner, 2014<sup>10</sup> | Same study population as Bamelsis, 2014<sup>10</sup> | Patients with cluster-C personality disorders  
N = 320; number of patients with depression not reported | Schema therapy  
TAU  
Clarification-oriented therapy | Patients with comorbid depression had higher baseline PD severity than those without.  
Depression at baseline was associated with:  
- reduced rates of recovery from PD at the 3 year follow-up ($P = 0.01$)  
- higher rates of psychosocial impairment ($P < 0.01$)  
Comorbid depression did not moderate the treatment effect (with the exception of one psychosocial measure).  
Authors concluded that patients with cluster-C PD and comorbid depression may benefit from add-on depression treatment while receiving treatment for a PD. |
| Bohus, 2013<sup>10</sup> | Assessor blinded  
Outcomes measured after treatment, 6-weeks, and 12-weeks follow-up | Female in-patients with CSA-related PTSD with and without BPD  
N = 74 | DBT-PTSD residential program  
TAU waitlist | Diagnosis of BPD did not affect the efficacy of the DBT-PTSD program.  
Authors concluded that a DBT-PTSD program was effective for female patients with CSA-related PTSD and comorbid BPD |
| Moradveisi, 2013<sup>17</sup> | Outcomes assessed at 0, 4, 13, and 49 weeks | Out-patients with major depressive disorder with and without PD  
N = 100 (50 in each group) | Behavioural activation therapy  
Antidepressant medication | Patients with cluster-C PDs had higher depression scores at baseline than those without PD.  
Patients with PD did not respond to treatment differently than those without, both at the short- and long-term follow-ups.  
Behavioural activation therapy was more effective in reducing depressive symptoms than antidepressant medication in patients with or without PD.  
PD was associated with higher dropout rates.  
Cluster-C PDs was associated with higher depression severity but not to |
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<td>differences in treatment response.</td>
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BPD = borderline personality disorder; CSA = childhood sexual abuse; DBT = dialectical behavioural therapy; PD = personality disorder; PTSD = post-traumatic stress disorder; RCT = randomized controlled trial; TAU = treatment as usual.

## References Summarized

### Health Technology Assessments

No literature identified

### Systematic Reviews and Meta-analyses


### Randomized Controlled Trials


**Personality Disorders with Comorbid Depression or Post-Traumatic Stress Disorder**


Guidelines and Recommendations

No literature identified
Appendix — Further Information

Previous CADTH Reports


Qualitative Systematic Review


Randomized Controlled Trials (RCTs)

Secondary Analyses of RCTs of Patients With or Without Comorbidities


Follow-up to Original Randomized Studies


Non-Randomized Studies—Current or Veteran Military


Consensus Statements, Quality Standards, or Guidelines with Unclear or Non-Rigorous Methods


Clinical Practice Guidelines – Rigour of Methodology Unclear


Patient Care Pathways

Note: See also flowchart https://pathways.nice.org.uk/pathways/personality-disorders