BEST in Mental Health

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Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* MH *clinical question-answering service*

Question

In adults with borderline personality disorder, which is the most effective psychological intervention (excluding CBT and DBT), in improving patient outcomes?

Clarification of question using PICO structure

Patients: Adults with borderline personality disorder (BPD)
Intervention: Any psychological intervention (excluding CBT & DBT)
Comparator: Any other psychological intervention or no intervention
Outcome: Any clinical outcome

Email: awp.BESTinMH@nhs.net Phone: 0117 378 4232/4233/4335 @BESTinMH

Clinical and research implications

Data from RCTs suggest that psychotherapies are effective in treatment patients with BPD, but there is insufficient evidence to determine which psychological intervention (excluding CBT and DBT) is the most effective in improving patient outcomes. Most treatments were only evaluated in single studies, and there are some concerns regarding the risk of bias in these studies. There are very few direct comparisons of different treatments. Data from single studies support the effectiveness of mentalisation-based treatment in a partial hospitalisation setting (MBT-PH), outpatient MBT (MBT-out), transference-focused therapy (TFP), interpersonal therapy for BPD (IPT-BPD), psychic representation focused psychotherapy (PRFP), emotion regulation group therapy (ERG), schema-focused group therapy (SFT-G), systems training for emotional predictability and problem solving for borderline personality disorder (STEPPS), STEPPS plus individual therapy (STEPPS+IT), manual-assisted cognitive treatment (MACT) and psychoeducation (PE). There was no RCT evidence on cognitive analytical therapy (CAT). Interpersonal psychotherapy was only effective in the treatment of associated depression. No statistically significant effects were found for DDP interventions. Direct comparisons suggest that DBT may be more effective than CCT and SFT more effective than TFP. There is a need for further high quality studies providing direct comparisons of the different available psychological treatments for patients with BPD.

What does the evidence say?

Number of included studies/reviews (number of participants)

One systematic review (1) and two RCTs published since the search data for the review (2,3) were identified. The systematic review evaluated all RCTs of psychological therapies for people with BPD (28 RCTs, n=1804). One RCT compared 2 years of mentalisation-based treatment with supportive therapy (n=111; 58 completed 2 years of treatment). The other compared 6 months of psychic representation focused psychotherapy (PRFP) with conventional pharmacological therapy (44 patients).

Main Findings

The systematic review found that the only treatment to have been evaluated in multiple trials was DBT; this treatment was specifically excluded from the clinical question for this evidence summary and so is not considered further. Other interventions were only assessed in single studies. Comprehensive psychotherapies evaluated included mentalisation-based treatment in a partial hospitalisation setting (MBT-PH), outpatient MBT (MBT-out), transference-focused therapy (TFP), cognitive behavioural therapy (CBT), dynamic deconstructive psychotherapy (DDP), interpersonal psychotherapy (IPT) and interpersonal therapy for BPD (IPT-BPD). Non-comprehensive psychotherapeutic interventions included emotion regulation group therapy (ERG), schema-focused group therapy (SFT-G), systems training for emotional predictability and problem solving for borderline personality disorder (STEPPS), STEPPS plus individual therapy (STEPPS+IT), manual-assisted cognitive treatment (MACT) and psychoeducation (PE). No trials were identified for cognitive analytical therapy (CAT). The following interventions showed statistically significant beneficial effects compared to control: MBT-PH, MBT-out, TFP and IPT-BPD. IPT was only effective in the treatment of associated depression. No statistically significant effects were found for CBT and DDP interventions. Direct comparisons showed that DBT was more effective than CCT and SFT was

more effective than TFP. Results for each of the non-comprehensive psychotherapeutic interventions were also generally positive.

The RCT that compared MBT treatment with supportive psychotherapy found that both treatment groups showed significant improvements (effect size 0.5-2.1, $p<0.05$) in all outcomes evaluated after therapy. However, the only outcome to show a statistically significant between group difference in favour of MBT treatment was the therapist rated global assessment of functioning (GAF-F: $F = 8.0$, $P = 0.005$; GAF-S: $F = 12.7$, $P = 0.0004$). All other outcomes did not differ significantly between groups.

Preliminary results, available only for evaluation immediately post-treatment, form the RCT that compared PRFP with conventional pharmacological therapy found significantly better outcomes in the experimental group for all primary outcomes (SCL-90, ES 0.78, $p<0.016$, Barratt score ES 0.61, $p=0.009$, SASS score ES 0.80, $p=0.001$) and most secondary outcomes.

Authors Conclusions
The systematic review (1) concluded that "overall, the findings support a substantial role for psychotherapy in the treatment of people with BPD but clearly indicate a need for replicatory studies." One of the RCTs concluded that "both MBT and supportive treatment are highly effective in treating BPD when conducted by a well- trained and experienced psychodynamic staff in a well-organized clinic". This conclusion should be interpreted with some caution as the effects of MBT and supportive treatment were not compared to control conditions and are based on pre- and post-intervention evaluations. The second RCT concluded that "PRFP may represent an important contribution for the treatment of BPD patients. Follow-up assessment at 6 and 12 months is planned."

Reliability of conclusions/Strength of evidence
The systematic review was a well conducted Cochrane review that we judged to be at low risk of bias, its conclusions are likely to be reliable. Both RCTs (2, 3) were judged to be at high risk of bias as the outcome assessors were not blinded to treatment group allocation. Conclusions from these trials should therefore be interpreted with some caution.

What do guidelines say?

The NICE Guidelines (4) state the following in regards to recommendations for the Psychological treatment of Borderline personality disorder:

- When providing psychological treatment for people with borderline personality disorder, especially those with multiple comorbidities and/or severe impairment, the following service characteristics should be in place:
  - an explicit and integrated theoretical approach used by both the treatment team and the therapist, which is shared with the service user
  - structured care in accordance with this guideline
  - provision for therapist supervision.

- Although the frequency of psychotherapy sessions should be adapted to the person's needs and context of living, twice-weekly sessions may be considered.

- Do not use brief psychological interventions (of less than 3 months' duration) specifically for borderline personality disorder or for the individual symptoms of the disorder, (pp. 207-208)

Date question received: 12/02/2014
Date searches conducted: 19/02/2014
Date answer completed: 03/03/2014

References

SRs

1. Stoffers, J. M., Völlm, B. A., Rücker, G., Timmer, A., Huband, N., & Lieb, K., (2012), “Psychological therapies for people with borderline personality disorder.” Cochrane Database of Systematic Reviews,

RCTs

2. Jorgensen, C. R., Freund, C., Boye, R., Jordet, H., Andersen, D., Kjolbye, M., (2013). "Outcome of mentalization-based and supportive psychotherapy in patients with borderline personality disorder: A randomized trial." Acta Psychiatrica Scandinavica 127(4): 305-317.

3. Reneses, B., et al. (2013). "A new time limited psychotherapy for BPD: preliminary results of a randomized and controlled trial." Actas Espanolas de Psiquiatria 41(3): 139-148.

Guidelines:

4. National Institute for Health and Care Excellence (2009) Borderline Personality Disorder (BPD) The NICE Guidelines on treatment and management. CG178. Leicester: National Institute for Health and Care Excellence.
http://www.nice.org.uk/nicemedia/live/12125/43045/43045.pdf

Results

Systematic Reviews

Author (year)	Search Date	Inclusion criteria	Number of included studies	Summary of results	Risk of bias
Stoffers (2012)(1)	October 2010-January 2011	*Population:* Adults (18 or over) with a diagnosis of BPD according to DSM criteria. At least 70% of participants had to have a formal diagnosis of BPD. *Intervention:* Any well-defined, theory-driven psychotherapeutic treatment. All types of psychotherapy regardless of theoretical orientation and all treatment settings were included. Trials on relaxation techniques and patient education programs were also eligible. *Comparator:* Unspecific control interventions (e.g. standard care, treatment as usual, waiting list), comparative specific psychotherapeutic interventions (head to head comparison) *Outcomes:* Self-rated or interviewer-assessed. Only adequately validated measures were included. Studies had to provide data that could be used for effect size calculation for at least one of following outcomes: overall BPD severity, severity of single BPD criteria (anger, affective instability, chronic feelings of emptiness, impulsivity, suicidality, parasuicidality), depression, anxiety, general psychopathology, mental health status/functioning, leaving the study early, adverse effects.	28 RCTs in 91 reports (1804 patients)	Interventions were classified as comprehensive psychotherapies if they included individual psychotherapy as a substantial part of the treatment programme, or as non-comprehensive if they did not. **Comprehensive psychotherapies** Dialectical behaviour therapy (DBT), mentalisation-based treatment in a partial hospitalisation setting (MBT-PH), outpatient MBT (MBT-out), transference-focused therapy (TFP), cognitive behavioural therapy (CBT), dynamic deconstructive psychotherapy (DDP), interpersonal psychotherapy (IPT) and interpersonal therapy for BPD (IPT-BPD) were tested against a control condition. Direct comparisons included DBT versus client-centered therapy (CCT); schema-focused therapy (SFT) versus TFP; SFT versus SFT plus telephone availability of therapist in case of crisis (SFT+TA); cognitive therapy (CT) versus CCT, and CT versus IPT. **Non-comprehensive psychotherapeutic interventions** DBT-group skills training only (DBT-ST), emotion regulation group therapy (ERG), schema-focused group therapy (SFT-G), systems training for emotional predictability and problem solving for borderline personality disorder (STEPPS), STEPPS plus individual therapy (STEPPS+IT), manual-assisted cognitive treatment (MACT) and psychoeducation (PE) were compared to control. The only direct comparison was MACT versus MACT plus therapeutic assessment (MACT+). Inpatient treatment was	Low

		Study design: Parallel group RCTs or cross-over studies up to the point of first cross-over		examined in one study where DBT for PTSD (DBT-PTSD) was compared with a waiting list control. No trials were identified for cognitive analytical therapy (CAT). Data were sparse for individual interventions, and allowed for meta-analytic pooling only for DBT compared with treatment as usual (TAU) for four outcomes. There were moderate to large statistically significant effects indicating a beneficial effect of DBT over TAU for anger (n = 46, two RCTs; standardised mean difference (SMD) -0.83, 95% confidence interval (CI) -1.43 to -0.22; I2 = 0%), parasuicidality (n = 110, three RCTs; SMD -0.54, 95% CI -0.92 to -0.16; I2 = 0%) and mental health (n = 74, two RCTs; SMD 0.65, 95% CI 0.07 to 1.24 I2 = 30%). There was no indication of statistical superiority of DBT over TAU in terms of keeping participants in treatment (n = 252, five RCTs; risk ratio 1.25, 95% CI 0.54 to 2.92). All remaining findings were based on single study estimates of effect. Statistically significant between-group differences for comparisons of psychotherapies against controls were observed for BPD core pathology and associated psychopathology for the following interventions: DBT, DBT-PTSD, MBT-PH, MBT-out, TFP and IPT-BPD. IPT was only indicated as being effective in the treatment of associated depression. No statistically significant effects were found for CBT and DDP interventions on either outcome, with the effect sizes moderate for DDP and small for CBT. For comparisons between different comprehensive psychotherapies, statistically significant superiority was demonstrated for DBT over CCT (core and associated pathology) and SFT over TFP (BPD severity and treatment retention). There were also encouraging results for each of the non-comprehensive psychotherapeutic interventions investigated in terms of both core and associated pathology.	

RCTs

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Jorgenson (2013)(2)	*Participants*: Adults (age 21 years or older) who met DSM-IV criteria for BPD as assessed by SCID-II. Patients who also met the criteria for antisocial or paranoid personality disorder or who had substance abuse disorder (daily abuse) were excluded. Only participants with a GAF (Global Assessment of functioning) score above 34 were included . *Intervention*: Combined, mentalization-based psychotherapy. Treatment consisted of 45-min sessions of individual psychotherapy carried out weekly over an 18month period and 1 ½ hours a week of group psychotherapy over 18-20 months (starting approx. 3 months after individual therapy). Psychoeducational (group-based) program monthly for 6 months. *Comparator*: Supportive treatment consisted of 1 ½ hours of supportive group therapy every fortnight. Psychoeducational (group-based) program monthly for 6 months. *Outcomes*: Outcomes were measured using the Revised Symptom Check List 90 (SLC-90-R) divided into 9 subscales. Depression and Anxiety symptoms were measured by the Beck Depression Inventory (BDI-II), State-Trait Anxiety Inventory (STAI) and Beck Anxiety Inventory (BAI). Social Adjustment and Interpersonal function were measured by the Social Adjustment Scale Self Report-version (SAS-SR) and the Inventory of Interpersonal Problems (IIP). SCL-90-R, BDI & BAI were answered every 3 months the rest were at Baseline and Termination.	111 (58 completed 2 years of treatment)	Pre-post effect sizes were generally high (0.5–2.1) in both groups. Statistically significant changes in both treatment groups were identified for several outcome measures, including self-reported measures of general functioning, depression, social functioning and number of diagnostic criteria met for BPD, as outlined by the SCID-II interview. Differences across individual patients in the two treatment groups were high, indicating that some patients experienced much better outcomes than others. Only GAF showed a significantly higher outcome in the MBT group (GAF-F: F = 8.0, P = 0.005; GAF-S: F = 12.7, P = 0.0004). There was a trend for a higher rate of recovery from BPD in the MBT group.	High

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Reneses (2013)(3)	*Participants*: Adults (age 18 to 50 years) with a clinical diagnosis of BPD following the DSM-IV-TR criterion made by the treating psychiatrist and using the SCID-II interview. Patients with an active suicide risk, violent or unmanageable hetero aggressive behaviours on the outpatient level at the time of recruitment, comorbidity with diagnosis of Eating Behaviour Disorder on Axis I, with Toxic Dependence Disorder or current severe physical disease were excluded. *Intervention*: Psychic Representation focused Psychotherapy (PRFP) time limited manualized psychodynamic psychotherapy developed by the research group. Consisted of 20 face-to-face, 45-minute long, consecutive weekly sessions. Patients also received conventional outpatient psychiatric treatment (psychopharmacological treatment). *Comparator*: Conventional outpatient psychiatric treatment which included standard psychopharmacological treatment based on the combination of three types of drugs according to the presence and intensity of three types of symptoms. Any type of standard psychotherapy was excluded in the control group. *Outcomes*: Primary outcomes: Global Index of SCL- 90-R, Barrat Impulsivity Scale and self-applied Social Adaptation (SASS score). Secondary outcomes: Zanarini Rating Scale for Borderline Personality Disorder, Clinical Global Impression Scale-CGI, Montgomery-Asberg Depression Rating Scale (MADRS), State-Trait Anxiety Inventory (STAI) and Rosemberg Scale for the evaluation of Self-Esteem. Suicidal intentionality was evaluated using the Montgomery-Asberg Scale. The GAF was used to evaluate the overall severity of disturbance.	53 (46 completed treatment). Results reported for first 44 patients to complete the intervention phase of the study (6 months).	Preliminary results showed significantly better outcomes for the experimental group in all the main variables measured and in most of the secondary ones. Results for primary outcomes were: SCL-90 (ES 0.78, $p<0.016$), Barratt score (ES 0.61, $p=0.009$), SASS score (ES 0.80, $p=0.001$).	High

Risk of Bias:

SRs

Author (year)	Risk of Bias				
	Inclusion criteria	Searches	Review Process	Quality assessment	Synthesis
Stoffers (2012)	☺	☺	☺	☺	☺

RCTs

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Jorgenson (2013)	?	?	?	☹	☺	☺
Reneses (2013)	☺	?	☹	☹	☺	☺

☺ Low Risk ☹ High Risk ? Unclear Risk

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
SRs and Guidelines			
NICE		82	1
DARE	1 (borderline* adj3 (personalit*)) IN DARE 41 2 MeSH DESCRIPTOR Borderline Personality Disorder EXPLODE ALL TREES 27 3 #1 OR #2	54	1
Primary studies			
CENTRAL	#1 "borderline personality disorder" 384 #2 MeSH descriptor: [Borderline Personality Disorder] explode all trees 224 #3#1 or #2384 #4mentalization or mindfulness646 #5transference or schema447 #6dynamic or psychodynamic6018 #7interpersonal or supportive7981 #8"problem solving"2615 #9"cognitive analytic"43 #10STEPPS10 #11#4 or #5 or #6 or #7 or #8 or #9 or #1016508 #12#3 and #11 129 (74 in CENTRAL)	74	
PsycINFO	1. PsycINFO; "Borderline Personality Disorder".ti,ab; 5915 results. 2. PsycINFO; BORDERLINE PERSONALITY DISORDER/; 3896 results. 3. PsycINFO; 1 or 2; 6616 results. 4. PsycINFO; "mentalization based".ti,ab; 183 results.	120	

	5. PsycINFO; "transference focused".ti,ab; 120 results. 6. PsycINFO; "schema focused".ti,ab; 179 results. 7. PsycINFO; "supportive psychotherapy".ti,ab; 662 results. 8. PsycINFO; "interpersonal psychotherapy".ti,ab; 982 results. 9. PsycINFO; "dynamic psychotherapy".ti,ab; 1107 results. 10. PsycINFO; "psychodynamic therapy".ti,ab; 790 results. 11. PsycINFO; "psychodynamic psychotherapy".ti,ab; 1696 results. 12. PsycINFO; "dynamic therapy".ti,ab; 237 results. 13. PsycINFO; STEPPS.ti,ab; 28 results. 14. PsycINFO; "problem solving".ti,ab; 31257 results. 15. PsycINFO; mindfulness.ti,ab; 4098 results. 16. PsycINFO; mentalization.ti,ab; 772 results. 17. PsycINFO; 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16; 41231 results. 18. PsycINFO; 3 AND 17; 491 results. 19. PsycINFO; "cognitive analytic therapy".ti,ab; 205 results. 20. PsycINFO; 17 OR 19; 41413 results. 21. PsycINFO; 3 and 20; 521 results. 22. PsycINFO; CLINICAL TRIALS/; 7320 results. 23. PsycINFO; random*.ti,ab; 126518 results. 25. PsycINFO; (doubl* adj3 blind*).ti,ab; 18033 results. 26. PsycINFO; (singl* adj3 blind*).ti,ab; 1593 results. 27. PsycINFO; EXPERIMENTAL DESIGN/; 8944 results.		

	28. PsycINFO; controlled.ti,ab; 78803 results. 29. PsycINFO; (clinical adj3 study).ti,ab; 7741 results. 30. PsycINFO; trial.ti,ab; 66664 results. 31. PsycINFO; "treatment outcome clinical trial".md; 26059 results. 32. PsycINFO; 22 OR 23 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31; 242808 results. 33. PsycINFO; 21 and 32; 120 results.		
Embase	1. EMBASE; "Borderline Personality Disorder".ti,ab; 4875 results. 2. EMBASE; BORDERLINE STATE/; 8969 results. 3. EMBASE; 1 OR 2; 9471 results. 4. EMBASE; "transference focused".ti,ab; 72 results. 5. EMBASE; "schema focused".ti,ab; 95 results. 6. EMBASE; "supportive psychotherapy".ti,ab; 580 results. 7. EMBASE; "interpersonal psychotherapy".ti,ab; 754 results. 8. EMBASE; "dynamic psychotherapy".ti,ab; 495 results. 9. EMBASE; "psychodynamic therapy".ti,ab; 392 results. 10. EMBASE; "psychodynamic psychotherapy".ti,ab; 919 results. 11. EMBASE; "dynamic therapy".ti,ab; 192 results. 12. EMBASE; STEPPS.ti,ab; 50 results. 13. EMBASE; "problem solving".ti,ab; 14659 results. 14. EMBASE; mindfulness.ti,ab; 2469 results. 15. EMBASE; mentalization.ti,ab; 301 results. 16. EMBASE; "cognitive analytic therapy".ti,ab; 83 results.	94	

	17. EMBASE; 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16; 20677 results. 18. EMBASE; 3 AND 17; 397 results. 19. EMBASE; random*.tw; 887552 results. 20. EMBASE; factorial*.tw; 23037 results. 21. EMBASE; placebo*.tw; 202397 results. 22. EMBASE; (crossover* OR cross-over*).tw; 70115 results. 23. EMBASE; (doubl* adj3 blind*).tw; 144971 results. 24. EMBASE; (singl* adj3 blind*).tw; 16817 results. 25. EMBASE; assign*.tw; 241000 results. 26. EMBASE; allocat*.tw; 83495 results. 27. EMBASE; volunteer*.tw; 178672 results. 28. EMBASE; CROSSOVER PROCEDURE/; 40030 results. 29. EMBASE; DOUBLE-BLIND PROCEDURE/; 120717 results. 30. EMBASE; SINGLE-BLIND PROCEDURE/; 19074 results. 31. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 368196 results. 32. EMBASE; 19 OR 20 OR 21 OR 22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31; 1428235 results. 33. EMBASE; 18 AND 32; 94 results.		
Medline	34. MEDLINE; "Borderline Personality Disorder".ti,ab; 3676 results. 35. MEDLINE; BORDERLINE PERSONALITY DISORDER/; 4832 results. 36. MEDLINE; 34 OR 35; 5699 results. 37. MEDLINE; "transference focused".ti,ab; 52 results.	62	

	38. MEDLINE; "schema focused".ti,ab; 54 results. 39. MEDLINE; "supportive psychotherapy".ti,ab; 419 results. 40. MEDLINE; "interpersonal psychotherapy".ti,ab; 570 results. 41. MEDLINE; "dynamic psychotherapy".ti,ab; 354 results. 42. MEDLINE; "psychodynamic therapy".ti,ab; 226 results. 43. MEDLINE; "psychodynamic psychotherapy".ti,ab; 592 results. 44. MEDLINE; "dynamic therapy".ti,ab; 118 results. 45. MEDLINE; STEPPS.ti,ab; 28 results. 46. MEDLINE; "problem solving".ti,ab; 11809 results. 47. MEDLINE; mindfulness.ti,ab; 1629 results. 48. MEDLINE; mentalization.ti,ab; 182 results. 49. MEDLINE; "cognitive analytic therapy".ti,ab; 52 results. 50. MEDLINE; 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47 OR 48 OR 49; 15835 results. 51. MEDLINE; 36 AND 50; 243 results. 52. MEDLINE; "randomized controlled trial".pt; 363152 results. 53. MEDLINE; "controlled clinical trial".pt; 87554 results. 54. MEDLINE; placebo.ab; 149975 results. 55. MEDLINE; random*.ab; 669789 results. 56. MEDLINE; trial.ti; 121148 results. 57. MEDLINE; CLINICAL TRIALS AS TOPIC/; 167730 results. 58. MEDLINE; 52 OR 53 OR 54 OR 55 OR 56 OR 57; 1036983 results.		

	59. MEDLINE; exp ANIMALS/ NOT HUMANS/; 3880949 results. 60. MEDLINE; 58 NOT 59; 947283 results. 61. MEDLINE; 51 AND 60; 62 results.		
Summary	**NA**	**NA**	

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