

Cognitive-behavioural therapy and short-term psychoanalytic psychotherapy versus brief psychosocial intervention in adolescents with unipolar major depression (IMPACT): a multicentre, pragmatic, observer-blind, randomised controlled trial

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Scientific summary

CBT and STPP vs. BPI in adolescents with unipolar major depression

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Scientific summary

Background

Unipolar major depressive disorder (MDD) emerges in the adolescent years as episodes of mental illness and is associated with a high risk of symptomatic and episode recurrence into adult life. Whether or not treatment for the acute episode is able to reduce and maintain non-clinical levels of depressive symptoms up to 12 months after psychological therapy is completed is not known.

Objectives

We aimed to test whether or not two specialist psychological treatments [short-term psychoanalytic psychotherapy (STPP) or cognitive-behavioural therapy (CBT)], when compared with a brief psychosocial intervention (BPI; a manualised problem-focused psychoeducation package), were associated with the maintenance of lower depressive symptoms 18 months after treatment began (12 months after treatment is completed).

The objectives of this study were to evaluate whether or not the clinical effectiveness and cost-effectiveness of receiving a specialist psychological therapy treatment was more beneficial than a brief psychosocial treatment given by a psychiatrist or other mental health professional working in routine specialist Child and Adolescent Mental Health Services (CAMHS) in England.

The specific research question addressed if, compared with BPI, receiving either of the specialist psychological treatments (STPP or CBT) would:

- result in lower self-reported depressive symptoms at the follow-up assessments completed at 52 and 86 weeks after treatment began
- be as cost-effective as BPI
- result in fewer patients meeting diagnostic criteria at final evaluation.

The hypotheses of the trial relate to the maintenance of treatment effect in the post-treatment period (i.e. over the nominal 36-, 52- and 86-week assessments).

The study had four primary hypotheses.

When comparing CBT with STPP:

1. CBT will show non-inferiority effects compared with STPP at 52 weeks
2. STPP will show superiority effects compared with CBT at 86 weeks

and when comparing CBT and STPP with BPI:

3. the specialist intensive interventions (CBT/STPP) will show superiority effects compared with BPI at 52 weeks
4. the specialist intensive interventions (CBT/STPP) will show superiority effects compared with BPI at 86 weeks.

Design

A pragmatic superiority randomised controlled trial (RCT) was conducted on depressed adolescents (11–17 years at entry) meeting criteria for unipolar major depression episode.

Setting

Participants were recruited from 15 NHS CAMHS clinics from three centres in England: East Anglia, North London and north-west England.

Interventions

Participants were randomised to one of three active psychological treatment arms: BPI, STPP or CBT. Over the course of the study, patients were allowed to receive a selective serotonin reuptake inhibitor (SSRI) in addition to psychological treatment if they met National Institute for Health and Care Excellence (NICE) guidelines for combined treatment to aid clinical remission by end of treatment (NICE. CG28: *Depression in Children and Young People: Identification and Management in Primary, Community and Secondary Care – Update*. London: NICE; 2015). Psychological treatment adherence and differentiation were rated using the Comparative Psychotherapy Process Scale.

Outcome measures

The duration of the trial was 86 weeks. The three interventions were scheduled at three different lengths of treatment (BPI up to 12 sessions, CBT up to 18 and STPP up to 28 + 5 parent/guardian sessions), all intending to be completed within 36 weeks. This preceded a follow-up assessment period reassessing patients at 52 and 86 weeks post randomisation. The primary outcome measure was self-reported depressive symptoms occurring in the past 2 weeks. Secondary outcome measures were self-reported anxiety, obsessive and antisocial symptoms; personal and social function (Health of the Nation Outcome Scales for Children and Adolescents); and interviewer-rated clinical diagnosis. Cost-effectiveness was evaluated using the Child and Adolescent Service users Schedule.

Results

Between 29 June 2010 and 17 January 2013 we assessed 557 patients, of whom 87 were excluded as not meeting eligibility criteria and 470 were included. These were randomly assigned to the BPI ($n = 158$), CBT ($n = 155$) and STPP ($n = 157$) groups. Clear treatment adherence and differentiation were established between the three interventions. For the primary outcome measure (Mood and Feelings Questionnaire), there was no evidence of a difference of effect between CBT and STPP at 52 weeks [adjusted mean difference = -0.31 95% confidence interval (CI) -3.77 to 3.16 ; $p = 0.862$] or 86 weeks (adjusted mean difference = -0.58 95% CI -4.10 to 2.95 ; $p = 0.748$). In addition, the two intensive treatments did not differ from BPI at 52 weeks (adjusted mean difference = -2.81 95% CI -5.79 to 0.18 ; $p = 0.065$) or at 86 weeks (adjusted mean difference = -1.90 , 95% CI -4.92 to 1.13 ; $p = 0.219$). At 86 weeks there was no significant difference in the proportion of patients meeting diagnostic criteria for major unipolar depression episodes when CBT was compared with STPP ($p = 0.261$) or when the intensive treatments were compared with BPI ($p = 0.145$). There were no differences in total costs or quality-of-life scores between treatment groups and the prescribing of a SSRI before or during the trial was no different between the treatment groups and did not influence the results.

Conclusions

For major depression in adolescents who are referred to CAMHS, any of the three psychological treatments investigated in this study can be prescribed as they are equally as likely as each other to maintain reduced depressive symptoms and improve quality of life up to 12 months following the end of therapy.

Recommendations for future research

- Determine the characteristics of depression prior to intervention that index the risk for non-response to treatment.

Delineating the antecedent factors that can identify treatment non-response is a key study to prevent application of non-therapeutic methods and to aid the development of new treatments for those likely to show persistent depression.

- A study to investigate treatment for cases resistant to first-line therapies.

Designing and implementing an intervention study for treatment-resistant depressed adolescents to reduce adult service use and personal morbidity is a high priority.

- Mechanisms of treatment response: the results suggest a possible common basis for treatment response and maintenance of reduced depressive symptoms and/or that each treatment approach has specific mechanisms of treatment response. Revealing mechanisms that subservise treatment response should be a focus for further investigation using experimental medicine methods. Such approaches could identify an antecedent endophenotype for treatment success or elements of treatment associated with good or poor outcomes.
- Person-centred treatment research: the comparable outcomes for different treatment modalities suggests a more person-centred approach to determine which treatment would work best for what patient is a priority for future research. Revealing common therapeutic and more specific treatment factors using quantitative and qualitative person-centred analyses are called for.
- Implementation in non-specialist settings and by less specialist staff: the findings relate to the specific environment of a specialist CAMHS clinic and relatively severely depressed adolescents. Whether or not any of these three therapies can be delivered with equal clinical effectiveness and cost-effectiveness by less highly qualified practitioners in non-specialist settings is an urgent research question.
- Investigating the role of therapeutic alliance in non-response to treatment: it is possible that non-response in some participants is due to poor therapeutic alliance. Studies should investigate how therapeutic alliance relates to treatment response and if this differs between therapies (including those used in this study). Such studies should break down the influence of therapist factors, patient factors and the specific relationship within an individual therapeutic relationship. These studies should identify at what time point a poor therapeutic response that will lead to non-response is identifiable, as this may suggest a treatment should be stopped.

Trial registration

This trial is registered as ISRCTN83033550.

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