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[Intervention Review]

Psychological therapies versus antidepressant medication, alone and in combination for depression in children and adolescents

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ABSTRACT

Background

Depressive disorders are common in children and adolescents and, if left untreated, are likely to recur in adulthood. Depression is highly debilitating, affecting psychosocial, family and academic functioning.

Objectives

To evaluate the effectiveness of psychological therapies and antidepressant medication, alone and in combination, for the treatment of depressive disorder in children and adolescents. We have examined clinical outcomes including remission, clinician and self reported depression measures, and suicide-related outcomes.

Search methods

We searched the Cochrane Depression, Anxiety and Neurosis Review Group's Specialised Register (CCDANCTR) to 11 June 2014. The register contains reports of relevant randomised controlled trials (RCTs) from the Cochrane Central Register of Controlled Trials (CENTRAL), MEDLINE (1950 to date), EMBASE (1974 to date), and PsycINFO (1967 to date).

Selection criteria

RCTs were eligible for inclusion if they compared i) any psychological therapy with any antidepressant medication, or ii) a combination of psychological therapy and antidepressant medication with a psychological therapy alone, or an antidepressant medication alone, or iii) a combination of psychological therapy and antidepressant medication with a placebo or 'treatment as usual', or (iv) a combination of psychological therapy and antidepressant medication with a psychological therapy or antidepressant medication plus a placebo.

We included studies if they involved participants aged between 6 and 18 years, diagnosed by a clinician as having Major Depressive Disorder (MDD) based on Diagnostic and Statistical Manual (DSM) or International Classification of Diseases (ICD) criteria.

Data collection and analysis

Two review authors independently selected studies, extracted data and assessed the quality of the studies. We applied a random-effects meta-analysis, using the odds ratio (OR) to describe dichotomous outcomes, mean difference (MD) to describe continuous outcomes when the same measures were used, and standard mean difference (SMD) when outcomes were measured on different scales.

Main results

We included eleven studies, involving 1307 participants in this review. We also identified one ongoing study, and two additional ongoing studies that may be eligible for inclusion. Studies recruited participants with different severities of disorder and with a variety of comorbid disorders, including anxiety and substance use disorder, therefore limiting the comparability of the results. Regarding the risk of bias in studies, just under half the studies had adequate allocation concealment (there was insufficient information to determine allocation concealment in the remainder), outcome assessors were blind to the participants' intervention in six studies, and in general, studies reported on incomplete data analysis methods, mainly using intention-to-treat (ITT) analyses. For the majority of outcomes there were no statistically significant differences between the interventions compared. There was limited evidence (based on two studies involving 220 participants) that antidepressant medication was more effective than psychotherapy on measures of clinician defined remission immediately post-intervention (odds ratio (OR) 0.52, 95% confidence interval (CI) 0.27 to 0.98), with 67.8% of participants in the medication group and 53.7% in the psychotherapy group rated as being in remission. There was limited evidence (based on three studies involving 378 participants) that combination therapy was more effective than antidepressant medication alone in achieving higher remission from a depressive episode immediately post-intervention (OR 1.56, 95% CI 0.98 to 2.47), with 65.9% of participants treated with combination therapy and 57.8% of participants treated with medication, rated as being in remission. There was no evidence to suggest that combination therapy was more effective than psychological therapy alone, based on clinician rated remission immediately post-intervention (OR 1.82, 95% CI 0.38 to 8.68).

Suicide-related Serious Adverse Events (SAEs) were reported in various ways across studies and could not be combined in meta-analyses. However, some trials measured suicidal ideation using standardised assessment tools suitable for meta-analysis. In one study involving 188 participants, rates of suicidal ideation were significantly higher in the antidepressant medication group (18.6%) compared with the psychological therapy group (5.4%) (OR 0.26, 95% CI 0.09 to 0.72) and this effect appeared to remain at six to nine months (OR 0.26, 95% CI 0.07 to 0.98), with 13.6% of participants in the medication group and 3.9% of participants in the psychological therapy group reporting suicidal ideation. It was unclear what the effect of combination therapy was compared with either antidepressant medication alone or psychological therapy alone on rates of suicidal ideation. The impact of any of the assigned treatment packages on drop out was also mostly unclear across the various comparisons in the review.

Limited data and conflicting results based on other outcome measures make it difficult to draw conclusions regarding the effectiveness of any specific intervention based on these outcomes.

Authors' conclusions

There is very limited evidence upon which to base conclusions about the relative effectiveness of psychological interventions, antidepressant medication and a combination of these interventions. On the basis of the available evidence, the effectiveness of these interventions for treating depressive disorders in children and adolescents cannot be established. Further appropriately powered RCTs are required.

PLAIN LANGUAGE SUMMARY

Psychological therapies versus antidepressant medication, alone and in combination for depression in children and adolescents

Depressive disorders are common in children and adolescents, with suggested overall prevalence rates for adolescents (13 to 18 years) being 5.7% and for children (under 13 years) 2.8%. Common symptoms of depression in children and adolescents include low mood, a loss of interest in once enjoyed activities, difficulties with concentration and motivation, changes in appetite and sleep, irritability, physical symptoms such as headaches or stomach aches and in some cases thoughts of suicide. If left untreated, depressive disorders in the younger years are likely to continue into adulthood, and can be increasingly difficult to treat as time goes on. Both psychological therapies and antidepressant medication can be used to treat depression in children and adolescents. Psychological therapies, sometimes called 'talking therapies', involve working with a qualified therapist to treat the depression. Psychological therapies in common use are cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT) and psychodynamic therapy. There are many different types of antidepressant medication, all of which have been developed specifically to work on chemicals in the brain that are believed to be linked to depression. Research has been undertaken on psychological therapies and antidepressant medication, alone and in combination, to assess the effects of these interventions on depression in children and adolescents.

In order to assess whether either intervention or a combination of both is most effective, we included studies that compared: (1) any psychological therapy with any antidepressant medication; (2) any combination of these therapies (a psychological therapy plus antidepressant medication) with either psychotherapy alone or antidepressant medication alone; (3) any combination of these therapies (a psychological therapy plus antidepressant medication) with a placebo or 'treatment as usual'; (4) any combination of these therapies (a psychological therapy plus antidepressant medication) with either therapy plus a placebo.

We included 11 randomised controlled trials (RCTs) involving 1307 participants in this review. These trials made a variety of different comparisons and only a small number of trials contributed information about each of the comparisons made in the review. Although most analyses included more than one trial, the results of these trials sometimes differed considerably or were even contradictory. In terms of adverse effects of treatment, in one trial, rates of suicidal thoughts were higher in those taking antidepressant medication, compared with

those delivered psychological therapy. Overall, it was not possible to draw robust conclusions from the meta-analyses, nor to establish which intervention strategy was most effective.

In summary, on the basis of the available evidence, we do not know whether psychological therapy, antidepressant medication or a combination of the two is most effective to treat depressive disorders in children and adolescents.