

Psychosocial interventions for the treatment of Functional Abdominal Pain Disorders in Children: A systematic review and meta-analysis

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Background: Functional abdominal pain disorders (FAPDs) can severely affect the life of children and their families, with symptoms carrying into adulthood. Their management is also a burden to clinicians and healthcare systems. The aim of this review was to systematically review the efficacy and safety of psychosocial interventions RCTs for the treatment of FAPDs.

Methods:

We included all RCTs that compared psychosocial interventions to any control or no intervention, for children with FAPDs, aged 4-18 years.

Risk of bias was assessed using the Cochrane risk of bias tool, and certainty of the evidence for all primary outcomes using GRADE.

Primary outcomes were treatment success, pain frequency, pain intensity, and withdrawal due to adverse events. Dichotomous outcomes were expressed as RR with corresponding 95% CI. Continuous outcomes were expressed as MD or SMD with 95% CI.

Results

Thirty-three randomised controlled trials (RCTs) with a total sample of 2657 children were included.

Twelve studies compared CBT to no intervention, five CBT to educational support, three yoga to no intervention, two hypnotherapy to no intervention, two gut-directed hypnotherapy to hypnotherapy, two guided imagery to relaxation. Seven looked at other unique comparisons.

We found moderate certainty evidence, due to risk of bias, that CBT probably leads to higher treatment success numbers (n=324, RR 2.37, 95% CI 1.30 to 4.34, NNT=5), lower pain frequency (n=446, RR -0.36, 95%, CI -0.63 to -0.09) and intensity (n=332, RR -0.58, 95%, CI -0.83 to -0.32) than no intervention;

Low certainty evidence, due to high imprecision, that there may be no difference between CBT and educational support for pain intensity (n=127, MD -0.36, 95% CI -0.87 to 0.15);

Low certainty evidence, due to risk of bias and imprecision that hypnotherapy may lead to higher treatment success compared to no intervention (n=91, RR 2.86, 95% CI 1.19 to 6.83, NNT=5);

Low certainty evidence, due to risk of bias and imprecision, that yoga may have similar treatment success to no intervention (n=99, RR 1.09, 95% CI 0.58 to 2.08).

Conclusions

This evidence demonstrates that CBT and hypnotherapy should be considered as a treatment for FAPDs in childhood.

Future RCTs should address quality issues so that the overall certainty can be enhanced further, as well as considering targeting these interventions to patients who are more likely to respond and the role of combination therapy.

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Declarations of interest

All authors declare no conflicts of interest

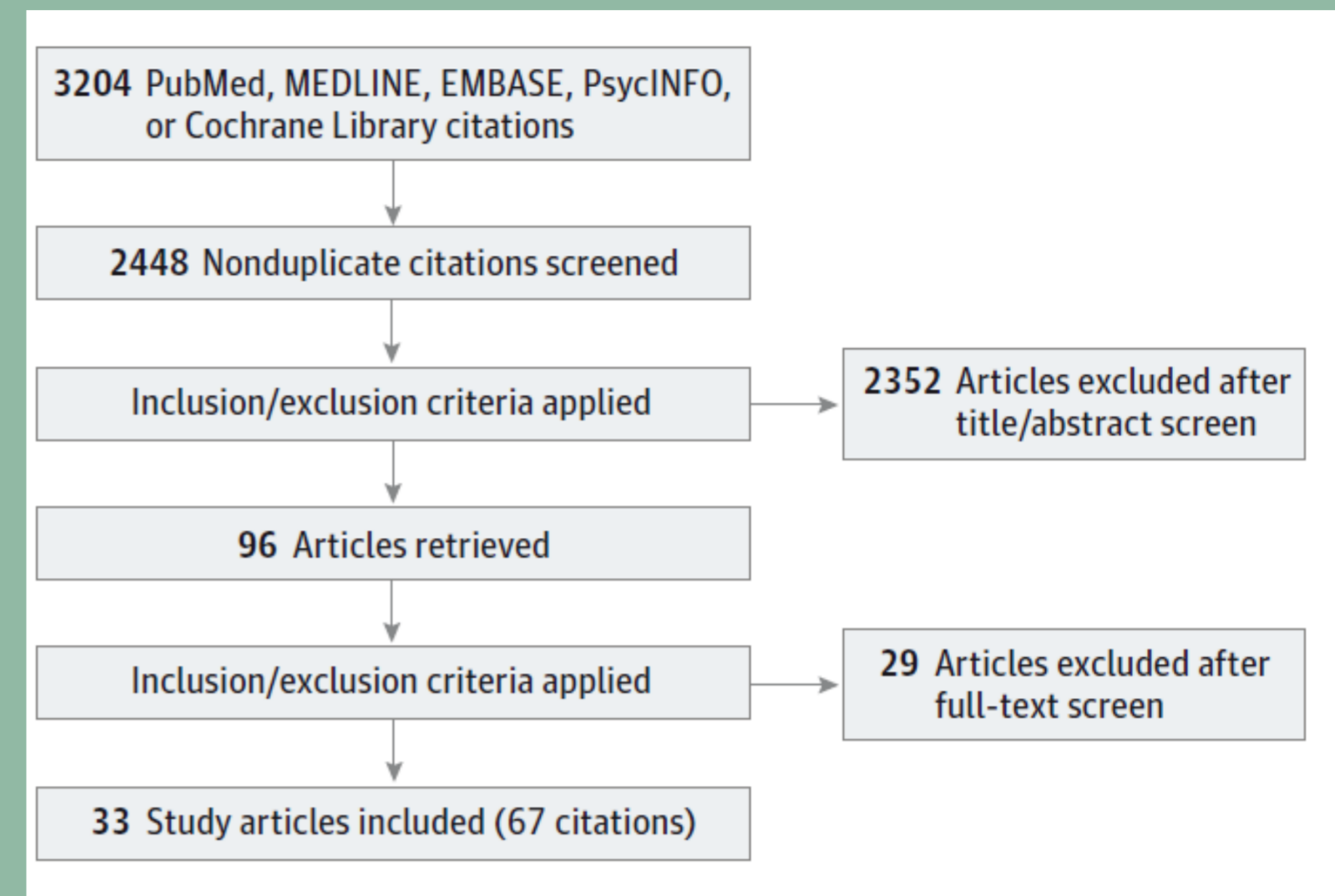


Figure 1: PRISMA flowchart

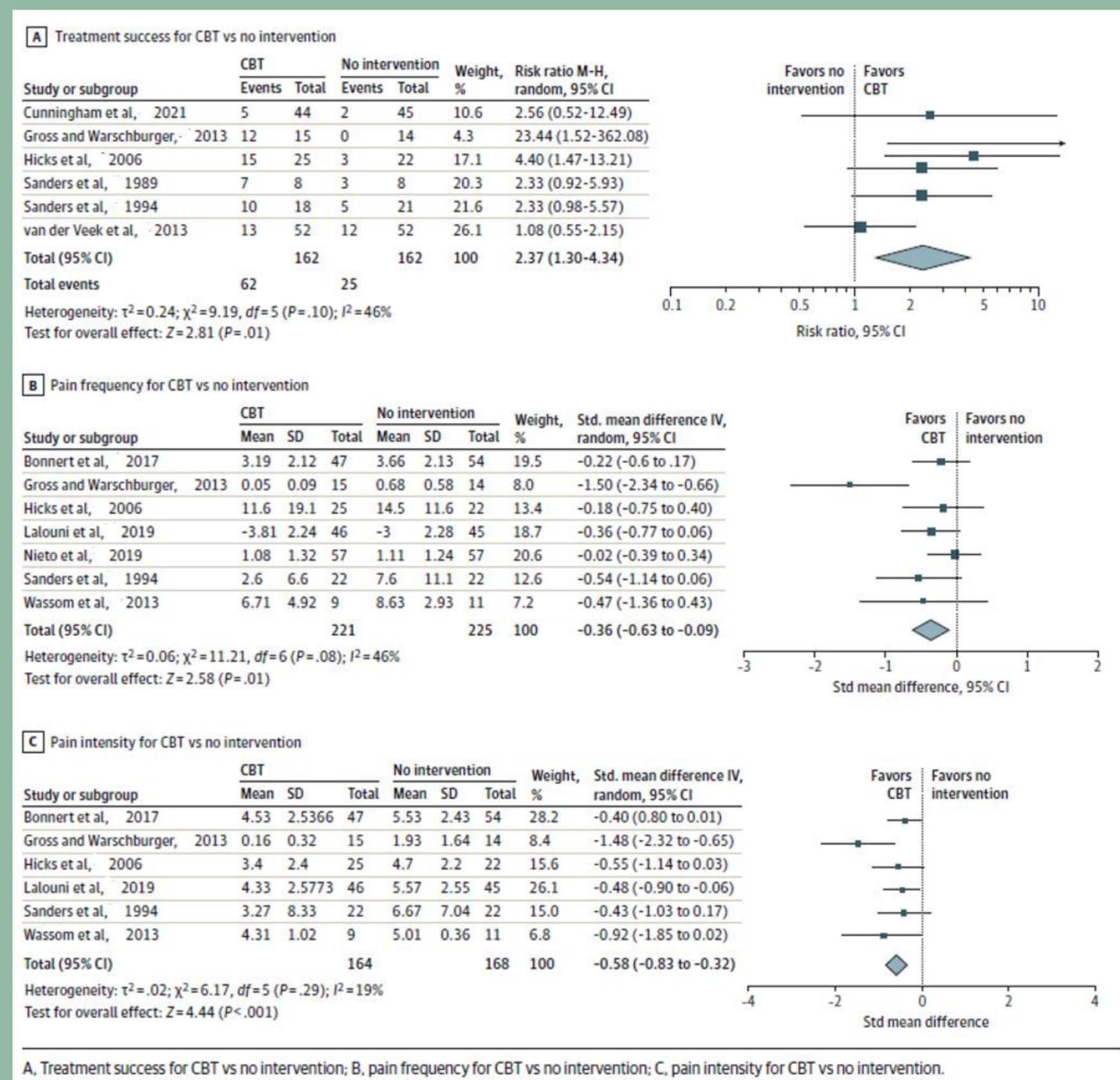


Figure 2: Forest plots of CBT compared to no intervention

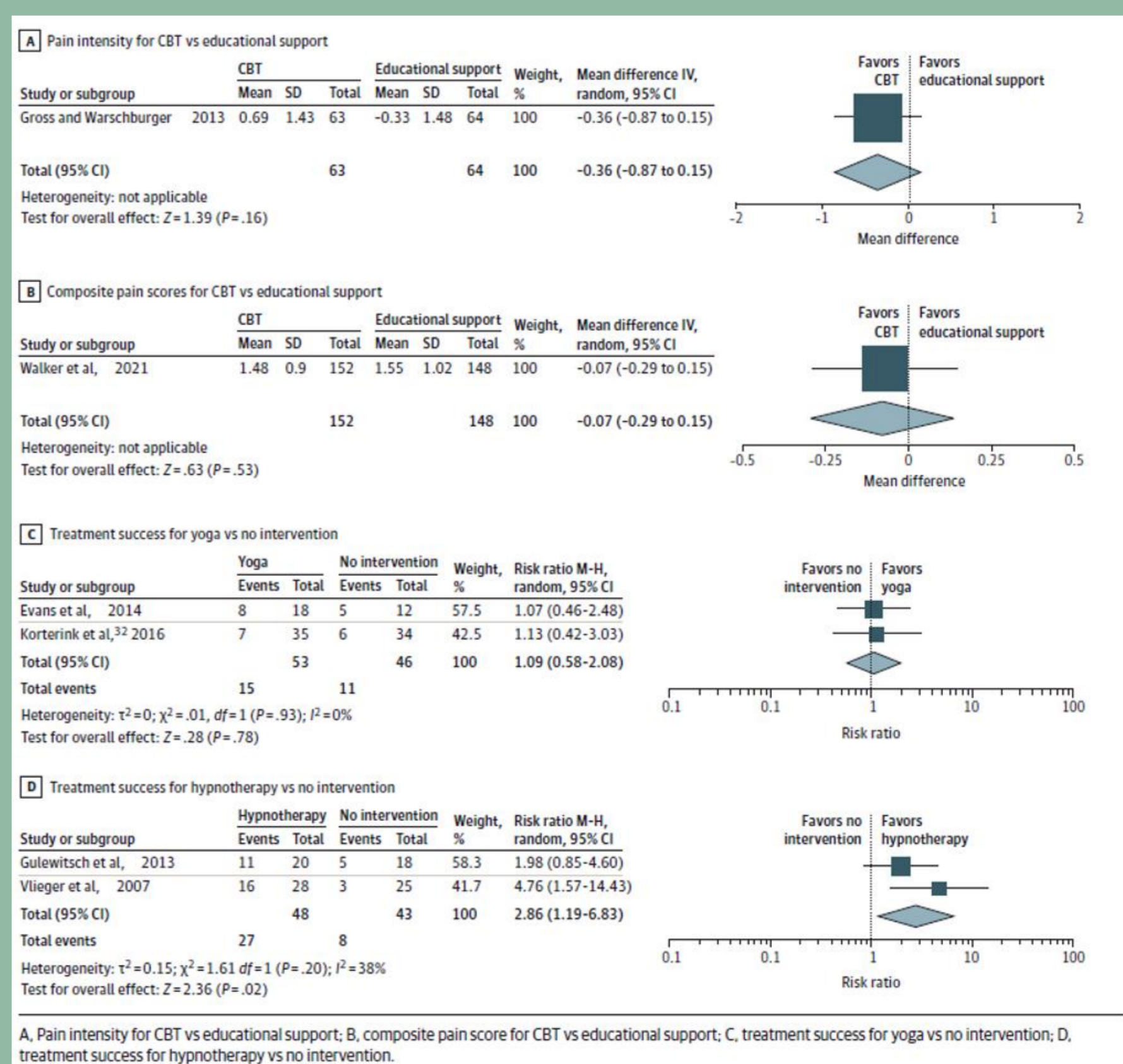


Figure 3: Forest plots of CBT vs educational support, yoga vs no intervention, and hypnotherapy vs no intervention