

Specific serotonin reuptake inhibitors (SSRIs) are considered as first-line treatment in major depressive disorder (MDD). There is evidence that venlafaxine may be more effective than several antidepressants in the treatment of MDD. This meta-analysis includes all published, randomized, double-blind, head-to-head trials, which compared venlafaxine and an SSRI in the treatment of MDD in adults. Twenty-six trials comparing venlafaxine with an SSRI were included (total participants: 5858). Meta-analysis using a random effect model showed that venlafaxine was superior to SSRIs in achieving remission [odds ratio (OR)=1.13, 95% confidence interval (CI)=1.0-1.28, P=0.05] and response (OR=1.17, 95% CI=1.03-1.34, P=0.02). Subgroup analysis found that venlafaxine had a significantly better response rate than fluoxetine (OR=1.28, 95% CI=1.05-1.55, P=0.01). There were no significant differences in response or remission between venlafaxine and other individual SSRIs. There was no significant difference in all cause discontinuation between venlafaxine and SSRIs (OR=1.10, 95% CI=0.97-1.25, P=0.15). Venlafaxine had significantly higher discontinuation due to adverse events compared with SSRIs (OR=1.41, 95% CI=1.10-1.79, P=0.006). The superior efficacy of venlafaxine over SSRIs is of clinical importance. However, higher rates of discontinuation due to adverse events for venlafaxine compared with SSRIs are a disadvantage. Findings of this meta-analysis that included only published studies were similar to those from meta-analysis that included unpublished data.