Addition of CBT to antidepressants (compared to antidepressants alone) for adolescent depression

Children's Mental Health: Depression

Literature review updated June 2018.

As part of WSIPP's research approach to identifying evidence-based programs and policies, WSIPP determines "what works" (and what does not work) to improve outcomes using an approach called meta-analysis. For detail on our methods, see our **Technical Documentation**. At this time, WSIPP has not yet calculated benefits and costs for this topic.

Program Description: Cognitive behavioral therapy (CBT) for depression includes such elements as cognitive restructuring, scheduling pleasant experiences, emotion regulation, communication skills, and problem-solving. Studies included in this review evaluated the effect of adding CBT to treatment with antidepressants compared to treatment with antidepressants only. Some studies included programming for parents, but children were the focus of interventions. One study occurred in a group modality; all others were individual treatments. Most programs included a shorter acute phase lasting three to four months followed by a longer, less intensive phase; this review analyzes post-acute phase outcomes where possible. On average, participants attended three sessions per month. Participants met clinical criteria for moderate to severe major depressive disorder, dysthymic disorder, or unspecified depressive disorder. Comparison groups received medication management services without CBT.

Meta-Analysis of Program Effects							
Outcomes measured	No. of effect sizes	Treatment N	Adjusted effect size and standard error			Unadjusted effect size (random effects model)	
			ES	SE	Age	ES	p-value
Anxiety disorder	1	25	0.082	0.288	15	0.082	0.776
Major depressive disorder	6	486	-0.037	0.078	15	-0.033	0.682
Disruptive behavior disorder symptoms	1	107	-0.089	0.136	15	-0.089	0.511
Externalizing behavior symptoms	2	102	-0.172	0.234	15	-0.172	0.462
Global functioning	3	344	0.078	0.091	15	0.078	0.388
Internalizing symptoms	2	102	-0.113	0.142	15	-0.113	0.424
Suicide attempts	2	267	0.056	0.143	15	0.056	0.695
Suicidal ideation	4	399	-0.112	0.144	15	-0.112	0.436

Meta-analysis is a statistical method to combine the results from separate studies on a program, policy, or topic in order to estimate its effect on an outcome. WSIPP systematically evaluates all credible evaluations we can locate on each topic. The outcomes measured are the types of program impacts that were measured in the research literature (for example, crime or educational attainment). Treatment N represents the total number of individuals or units in the treatment group across the included studies.

An effect size (ES) is a standard metric that summarizes the degree to which a program or policy affects a measured outcome. If the effect size is positive, the outcome increases. If the effect size is negative, the outcome decreases.

Adjusted effect sizes are used to calculate the benefits from our benefit cost model. WSIPP may adjust effect sizes based on methodological characteristics of the study. For example, we may adjust effect sizes when a study has a weak research design or when the program developer is involved in the research. The magnitude of these adjustments varies depending on the topic area.

WSIPP may also adjust the second ES measurement. Research shows the magnitude of some effect sizes decrease over time. For those effect sizes, we estimate outcome-based adjustments which we apply between the first time ES is estimated and the second time ES is estimated. We also report the unadjusted effect size to show the effect sizes before any adjustments have been made. More details about these adjustments can be found in our Technical Documentation.

Citations Used in the Meta-Analysis

- Brent, D.A., Emslie, G., Clarke, G., Wagner, K.D., Asarnow, J.R., Keller, M., et al. (2008). Switching to another SSRI or to venlafaxine with or without cognitive behavioral therapy for adolescents with SSRI-resistant depression: The TORDIA randomized controlled trial. *JAMA*, 299(8), 901-913.
- Clarke, G., Debar, L., Lynch, F., Powell, J., Gale, J., O'Connor, E., et al. (2005). A randomized effectiveness trial of brief cognitive-behavioral therapy for depressed adolescents receiving antidepressant medication. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(9), 888-898.
- Goodyer, I., Dubicka, B., Wilkinson, P., Kelvin, R., Roberts, C., Byford, S. et al. (2007). Selective serotonin reuptake inhibitors (SSRIs) and routine specialist care with and without cognitive behaviour therapy in adolescents with major depression: Randomised controlled trial. *British Medical Journal*, 335(7611), 142-146.
- Iftene, F., Predescu, E., Stefan, S., & David, D. (2015). Rational-emotive and cognitive-behavior therapy (REBT/CBT) versus pharmacotherapy versus REBT/CBT plus pharmacotherapy in the treatment of major depressive disorder in youth; a randomized clinical trial. *Psychiatry Research*, 225(3), 687-694.
- Kennard, B., Silva, S., Vitiello, B., Curry, J., Kratochvil, C., Simons, A., et al. (2006). Remission and residual symptoms after short-term treatment in the Treatment of Adolescents with Depression Study (TADS). *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(12), 1404-1411.
- Melvin, G.A., Tonge, B.J., King, N.J., Heyne, D., Gordon, M.S., & Klimkeit, E. (2006). A comparison of cognitive-behavioral therapy, sertraline, and their combination for adolescent depression. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(10), 1151-1161.
- Treatment for Adolescents With Depression Study (TADS) Team. (2004). Fluoxetine, cognitive-behavioral therapy, and their combination for adolescents with depression: Treatment for Adolescents With Depression Study (TADS) randomized controlled trial. *JAMA*, 292(7), 807-820.

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