Cognitive Behavioral Therapy (CBT) for Adult Depression

Program description:
Cognitive-behavioral therapies include various components, such as cognitive restructuring, behavioral activation, emotion regulation, communication skills, and problem-solving. Treatment is goal-oriented and generally of limited duration. Most commonly, studies offering this treatment provided 10-20 therapeutic hours per client in individual or group modality.

Typical age of primary program participant: 35
Typical age of secondary program participant: N/A

Meta-Analysis of Program Effects

<table>
<thead>
<tr>
<th>Outcomes Measured</th>
<th>No. of Effect Sizes</th>
<th>Unadjusted Effect Sizes (Random Effects Model)</th>
<th>Adjusted Effect Sizes and Standard Errors Used in the Benefit-Cost Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
<td>ES</td>
<td>SE</td>
</tr>
<tr>
<td></td>
<td>or Secondary</td>
<td>44</td>
<td>-0.66</td>
</tr>
<tr>
<td>Particpant</td>
<td>Participant</td>
<td></td>
<td></td>
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<tr>
<td>Major depressive disorder</td>
<td>P</td>
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</table>

Benefit-Cost Summary

The estimates shown are present value, life cycle benefits and costs. All dollars are expressed in the base year chosen for this analysis (2011). The economic discount rates and other relevant parameters are described in Technical Appendix 2.

<table>
<thead>
<tr>
<th>Source of Benefits</th>
<th>Benefits to:</th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>From Primary Participant</td>
<td>Participants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Earnings via depressive disorder</td>
<td>$5,082</td>
<td>$1,870</td>
<td>$0</td>
<td>$958</td>
<td>$7,911</td>
<td></td>
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</tr>
<tr>
<td>Health care costs via depressive disorder</td>
<td>$910</td>
<td>$2,749</td>
<td>$2,704</td>
<td>$1,357</td>
<td>$7,721</td>
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</tbody>
</table>

Detailed Cost Estimates

<table>
<thead>
<tr>
<th>Program Costs</th>
<th>Comparison Costs</th>
<th>Summary Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Cost</td>
<td>Program Duration</td>
<td>Year Dollars</td>
</tr>
<tr>
<td>$890</td>
<td>1</td>
<td>2008</td>
</tr>
</tbody>
</table>

Source: Based on therapist time as reported in the studies, multiplied by reported DSHS reimbursement rates.
The multiplicative adjustments for these studies are based on our empirical knowledge of the research in a topic area. We performed a multivariate meta-regression analysis of 74 effect sizes from evaluations of cognitive-behavioral therapy for depression or anxiety. The analysis examined the relative magnitude of effect sizes for studies rated a 1, 2, 3, or 4 for research design quality, in comparison with a 5 (see Technical Appendix II for a description of these ratings). We weighted the model using the random effects inverse variance weights for each effect size. The results indicated that research designs 1, 2, and 3 should have a multiplier of approximately 1 and research design 4 should have a multiplier of greater than 1. Using a conservative approach, we set all the multipliers to 1.

In this analysis, we also found that effect sizes were statistically significantly higher when the authors were also the program developer or were also the therapists. Based on regression results, we set the multiplier at 0.74. Regression results also indicated that among studies of CBT for depression and anxiety, effect sizes were significantly greater when the comparison group was a wait-list, rather than attention or active treatment. We applied a multiplier of 0.40 to studies with wait-list comparison groups.

### Studies Used in the Meta-Analysis

Studies Used in the Meta-Analysis


