Supplementary Online Content

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eFigure 1. Plot of Effect Size by Standard Error
eFigure 2. Plot of Effect Size by Standard Error
eFigure 3. Plot of Effect Size by Standard Error
eFigure 4. CBT Combined With Pharmacotherapy Compared With Usual Care Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment
eFigure 5. CBT Combined With Pharmacotherapy Compared With Usual Care Combined With Pharmacotherapy, Quantity Outcomes at Post Treatment
eFigure 6. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment
eFigure 7. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Frequency Outcomes at Follow-up
eFigure 8. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Quantity Outcomes at Post Treatment
eFigure 9. CBT Combined With Usual Treatment and Pharmacotherapy Compared With Usual Treatment Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment
eFigure 10. CBT Combined With Usual Treatment and Pharmacotherapy Compared With Usual Treatment Combined With Pharmacotherapy, Frequency Outcomes at Follow-up

**eReferences.**

This supplementary material has been provided by the authors to give readers additional information about their work.
Assessment of bias in combined CBT and pharmacotherapy in contrast to combined usual care and pharmacotherapy. The plot shows some asymmetry, but the regression test was non-significant. Further, when two studies with outlier effects (Heinala et al., 1 2001; Schmitz et al., 2 2001) were removed, this did not change the substantive conclusions for this sub-group ($g = 0.22; 95\% CI = 0.04, 0.39, p = .014; Q > .05, I^2 = 0\%; k = 7$).
Assessment of bias in combined CBT and pharmacotherapy in contrast to another specific therapy combined with pharmacotherapy. This plot shows symmetry, and the regression test was nonsignificant.
Assessment of bias in studies that added CBT to combined usual care and pharmacotherapy in contrast to usual care combined with pharmacotherapy alone. The plot shows some asymmetry, but the regression test was non-significant. When two studies with outlier effects (Dursteler-McFarland et al., 2013; Morgenstern et al., 2012) were removed, this resulted in a small and significant effect for CBT in this context ($g = 0.17; 95\% \text{ CI} = 0.02, 0.31, p = .025; Q > .05, I^2 = 40\%; k = 12)$.
eFigure 4. CBT Combined With Pharmacotherapy Compared With Usual Care Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment*

| Study name   | Comparison                   | Statistics for each study | Hedges' g and 95% CI |
|--------------|------------------------------|----------------------------|----------------------|
| Baldin (2003)| CBT + Med v TAU + Med       | 0.460 [0.269, 0.987]     |                      |
| Carroll (1994)| CBT + Med v TAU + Med      | 0.211 [0.270, 0.740]     |                      |
| Carroll (1998)| CBT + Med v TAU + Med      | 0.181 [0.277, 0.723]     |                      |
| O'Malley (1992)| CBT + Med v TAU + Med     | 0.010 [0.290, 0.578]     |                      |
| O'Malley (2003)| CBT + Med v TAU + Med     | 0.064 [0.145, 0.347]     |                      |
| Schmitz (2001)| CBT + Med v TAU + Med     | 2.153 [1.139, 4.386]     |                      |
| Schmitz (2004)| CBT + Med v TAU + Med     | 0.493 [0.315, 1.110]     |                      |
| Wetsel (2004)| CBT + Med v TAU + Med     | 0.126 [0.196, 0.509]     |                      |

Notes. CBT = cognitive-behavioral therapy; TAU = treatment as usual; med = medication.
* No follow-up pooled estimate.
**eFigure 5. CBT Combined With Pharmacotherapy Compared With Usual Care Combined With Pharmacotherapy, Quantity Outcomes at Post Treatment**

| Study name | Comparison | Statistics for each study | Hedges' g and 95% CI |
|------------|------------|---------------------------|----------------------|
| Baldin (2003) | CBT + Med v TAU + Med | 0.524, 0.270, -0.004, 1.053 | |
| O'Malley (1992) | CBT + Med v TAU + Med | 0.603, 0.441, -0.262, 1.468 | |
| O'Malley (2003) | CBT + Med v TAU + Med | 0.038, 0.145, -0.245, 0.321 | |
| Schmitz (2004) | CBT + Med v TAU + Med | 0.683, 0.319, 0.057, 1.308 | |
| Wetzel (2004) | CBT + Med v TAU + Med | 0.172, 0.196, -0.212, 0.556 | |

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| | 0.283, 0.129, 0.030, 0.535 | |

**Notes.** CBT = cognitive-behavioral therapy; TAU = treatment as usual; med = medication.

* No follow-up pooled estimate.
eFigure 6. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment

| Study name     | Comparison                      | Statistics for each study | Hedges' g and 95% CI               |
|---------------|--------------------------------|---------------------------|-----------------------------------|
| Anton (2005)  | CBT + Med v specific + Med     | 0.573                     |                                  |
| Carroll (2004)| CBT + Med v specific + Med     | 0.245                     |                                  |
| Carroll (1998)| CBT + Med v specific + Med     | -0.064                    |                                  |
| Davidson (2007)| CBT + Med v specific + Med    | 0.253                     |                                  |
| Dc Wildt (2002)| CBT + Med v specific + Med     | -0.091                    |                                  |
| Ling (2013)   | CBT + Med v specific + Med     | -0.103                    |                                  |
| Otto (2014)   | CBT + Med v specific + Med     | -0.125                    |                                  |
| Pettinati (2008)| CBT + Med v specific + Med | 0.004                     |                                  |
| Rawson (2002) | CBT + Med v specific + Med     | -0.441                    |                                  |

Notes. CBT = cognitive-behavioral therapy; med = medication

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eFigure 7. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Frequency Outcomes at Follow-up

| Study name      | Comparison                   | Statistics for each study | Hedges' g and 95% CI |
|-----------------|------------------------------|---------------------------|----------------------|
| De Wildt (2002) | CBT + Med v specific + Med  | -0.094 0.285 -0.652 0.465|                      |
| Longabaugh (2009)| CBT + Med v specific + Med  | -0.437 0.279 -0.984 0.109|                      |
| Otto (2014)     | CBT + Med v specific + Med  | -0.091 0.377 -0.829 0.647|                      |
| Rawson (2002)   | CBT + Med v specific + Med  | 0.155 0.284 -0.402 0.712 |                      |
| Saunders (2015) | CBT + Med v specific + Med  | 0.355 0.283 -0.199 0.909 |                      |
|                 | CBT + Med v specific + Med  | -0.019 0.140 -0.293 0.256|                      |

Notes. CBT = cognitive-behavioral therapy; med = medication

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**eFigure 8. CBT Combined With Pharmacotherapy Compared With Another Specific Therapy Combined With Pharmacotherapy, Quantity Outcomes at Post Treatment**

| Study name  | Comparison                     | Statistics for each study | Hedges' g and 95% CI |
|-------------|--------------------------------|----------------------------|----------------------|
| Anton (2005)| CBT + Med v specific + Med    | Hedges' g: 0.188, Standard error: 0.222, Lower limit: -0.247, Upper limit: 0.623 |                      |
| Davidson (2007)| CBT + Med v specific + Med  | Hedges' g: 0.052, Standard error: 0.163, Lower limit: -0.267, Upper limit: 0.372 |                      |
| Epstein (2003)| CBT + Med v specific + Med | Hedges' g: -0.608, Standard error: 0.208, Lower limit: -1.016, Upper limit: -0.200 |                      |
| Oslin (2008)| CBT + Med v specific + Med  | Hedges' g: 0.757, Standard error: 0.240, Lower limit: 0.287, Upper limit: 1.228 |                      |

**Notes.** CBT = cognitive-behavioral therapy; med = medication

* No follow-up pooled estimate.
eFigure 9. CBT Combined With Usual Treatment and Pharmacotherapy Compared With Usual Treatment Combined With Pharmacotherapy, Frequency Outcomes at Post Treatment

| Study name          | Comparison                | Statistics for each study | Hedges' g and 95% CI |
|---------------------|---------------------------|----------------------------|----------------------|
| Anton (2006)        | CBT + Med + TAU v Med + TAU | -0.056, 0.114, -0.280, 0.168 |                     |
| Dursteler-McFarland (2013) | CBT + Med + TAU v Med + TAU | -1.804, 0.425, -2.636, -0.971 |                     |
| Ling (2013)         | CBT + Med + TAU v Med + TAU | -0.027, 0.195, -0.408, 0.355 |                     |
| Oslin (2008)        | CBT + Med + TAU v Med + TAU | 0.669, 0.237, 0.205, 1.133  |                     |
| Pan (2015)          | CBT + Med + TAU v Med + TAU | 0.300, 0.129, 0.046, 0.554  |                     |
| Rawson (2002)       | CBT + Med + TAU v Med + TAU | 0.437, 0.311, -0.173, 1.047  |                     |
| Scherbaum (2005)    | CBT + Med + TAU v Med + TAU | -0.117, 0.234, -0.575, 0.341  |                     |
| Schneit (2008)      | CBT + Med + TAU v Med + TAU | 0.349, 0.358, -0.353, 1.052  |                     |
| Tucker (2004)       | CBT + Med + TAU v Med + TAU | 0.161, 0.202, -0.236, 0.558  |                     |

Notes. CBT = cognitive-behavioral therapy; TAU = treatment as usual; med = medication.
eFigure 10. CBT Combined With Usual Treatment and Pharmacotherapy Compared With Usual Treatment Combined With Pharmacotherapy, Frequency Outcomes at Follow-up*

| Study name   | Comparison                          | Statistics for each study | Hedges' g and 95% CI |
|--------------|-------------------------------------|---------------------------|----------------------|
| Berner (2014)| CBT + Med + TAU v Med + TAU        | 0.081 0.206 -0.322 0.485 |                      |
| Anton (2006) | CBT + Med + TAU v Med + TAU        | -0.003 0.114 -0.227 0.221|                      |
| Fiellin (2013)| CBT + Med + TAU v Med + TAU       | -0.002 0.168 -0.332 0.327|                      |
| Rawson (2002)| CBT + Med + TAU v Med + TAU        | 0.762 0.302 0.170 1.354 |                      |
| Saunders (2015)| CBT + Med + TAU v Med + TAU      | 0.694 0.272 0.162 1.227 |                      |
| Scherbaum (2005)| CBT + Med + TAU v Med + TAU    | 0.244 0.234 -0.215 0.703 |                      |
| Tucker (2004)| CBT + Med + TAU v Med + TAU       | -0.133 0.220 -0.563 0.297|                      |

* No quantity post-treatment or follow-up pooled estimate.

Notes. CBT = cognitive-behavioral therapy; TAU = treatment as usual; med = medication.
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