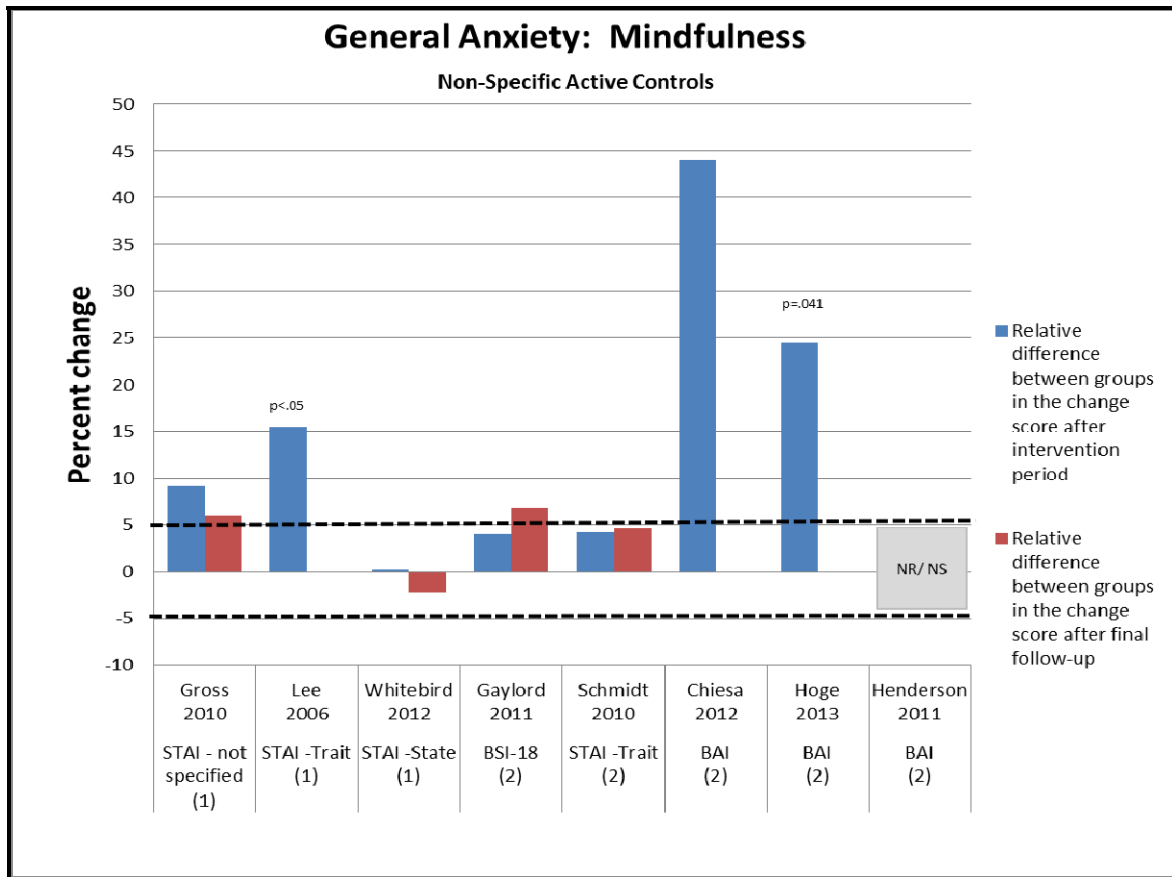


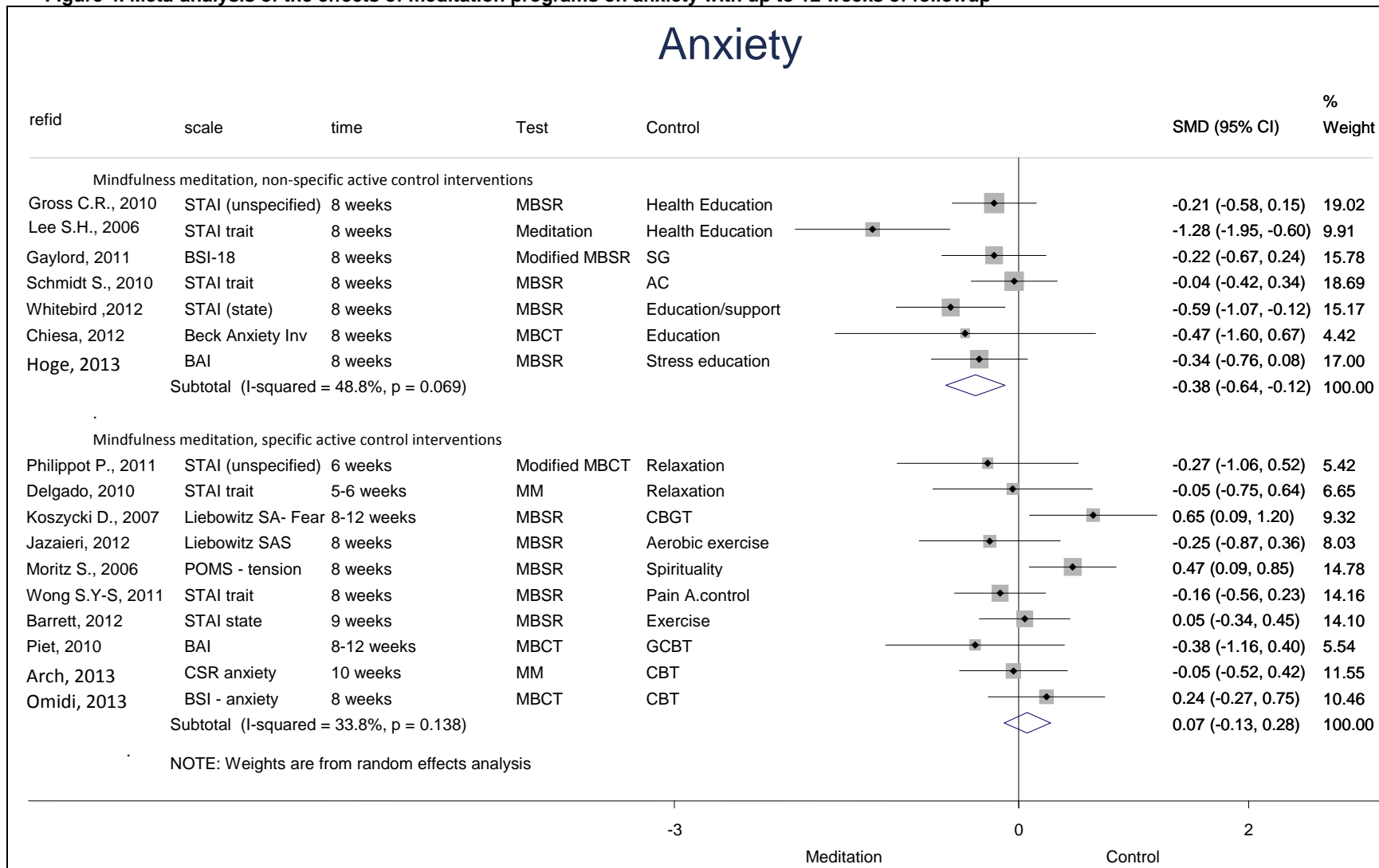
# **Online appendix of difference-in-change graphs and corresponding meta-analyses**

**Figure 3. Relative difference between groups in the changes in measures of general anxiety, in the mindfulness versus nonspecific active control studies**



- 1. Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- 2. (1): Primary outcome.** If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. **(2): Secondary outcome.** If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- 3. NR / NS = Not Reported/Not significant.** The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- 4. Black dotted lines from -5% to +5%** indicate our criteria for no effect. It does not indicate statistical significance.
- 5. A p value above or below a bar** indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- 6. BSI-18=**Brief Symptom Inventory 18, Anxiety subscale; **STAI =** State Trait Anxiety Inventory; **BAI =** Beck Anxiety Inventory; **SCL90 =** Symptom Checklist 90, anxiety subscale

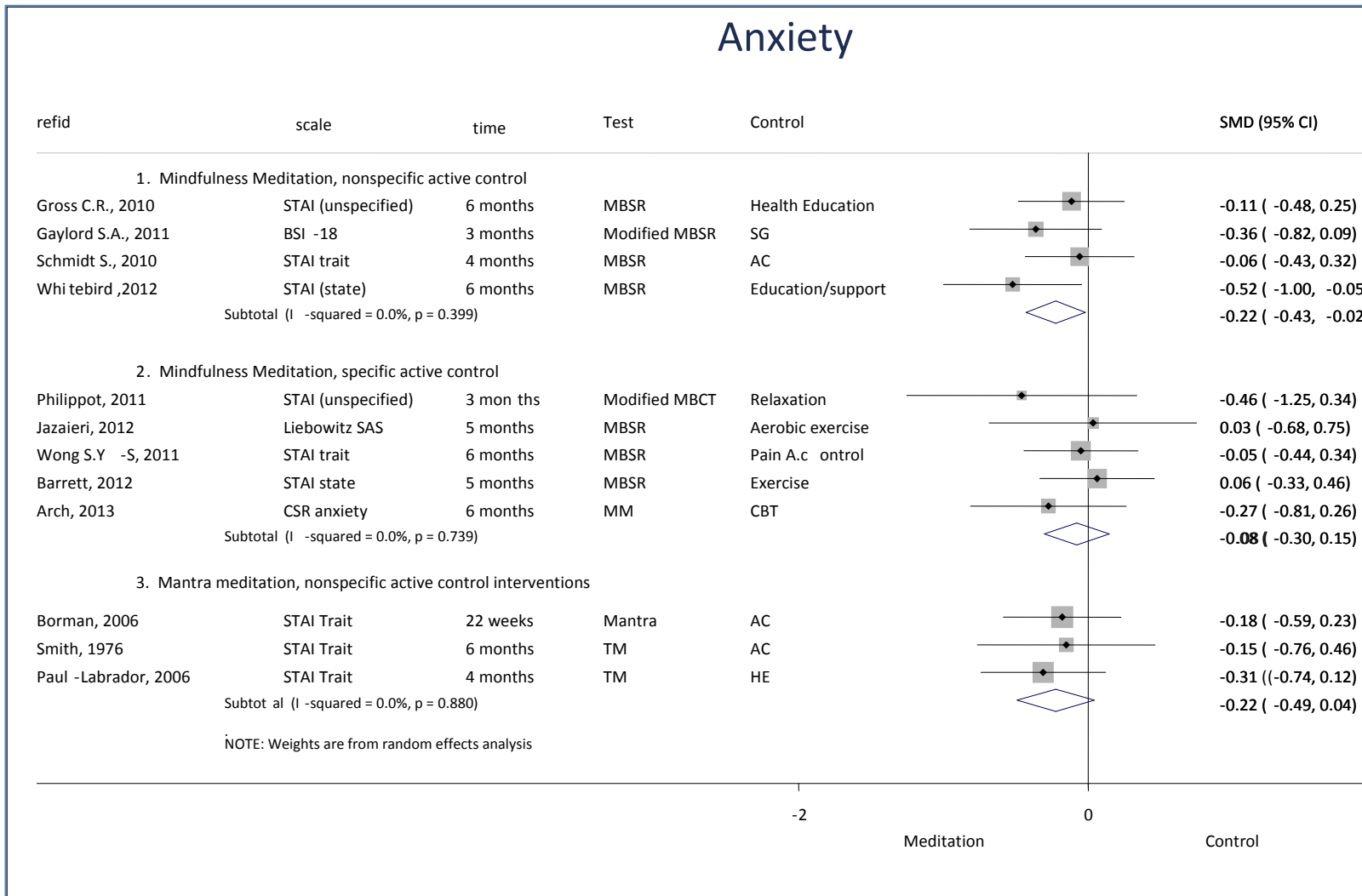
**Figure 4. Meta-analysis of the effects of meditation programs on anxiety with up to 12 weeks of followup**



AC = Active Control; BAI = Beck Anxiety Inventory; BSI = Brief Symptom Inventory; CBGT = Cognitive Behavioral Group Therapy; CI = confidence interval; HE=Health Education; MM = Mindfulness Meditation; MBSR = Mindfulness Based Stress Reduction; MBCT = Mindfulness-based Cognitive Therapy; POMS = Profile of Mood States; SCL = Symptom Checklist; SG = Support Group; STAI = State Trait Anxiety Inventory; SMD = standardized mean differences ; wks = weeks.

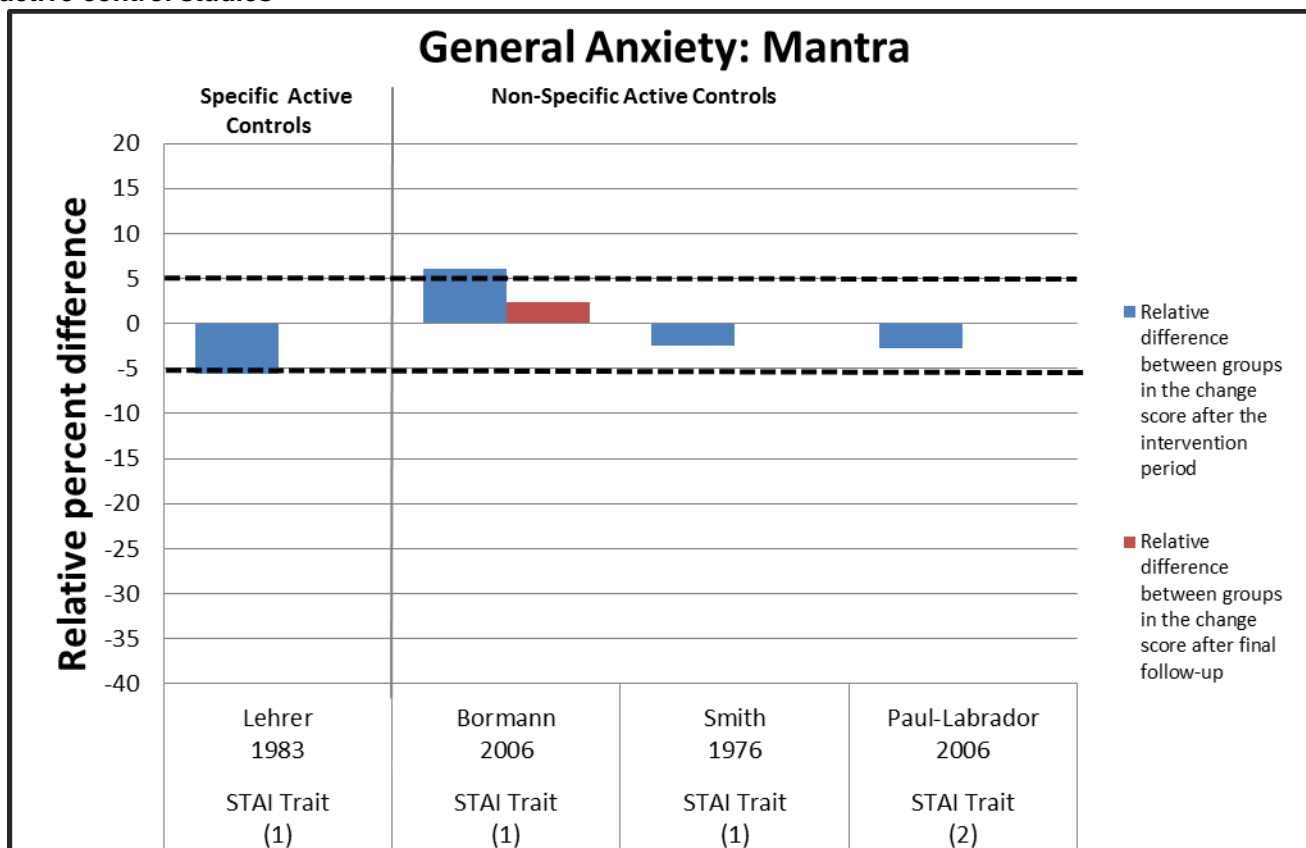
Text describing results for comparisons with specific active controls for anxiety starts on page 86 of the AHRQ report

Figure 5. Meta-analysis of the effects of meditation programs on anxiety after 3-6 months of followup



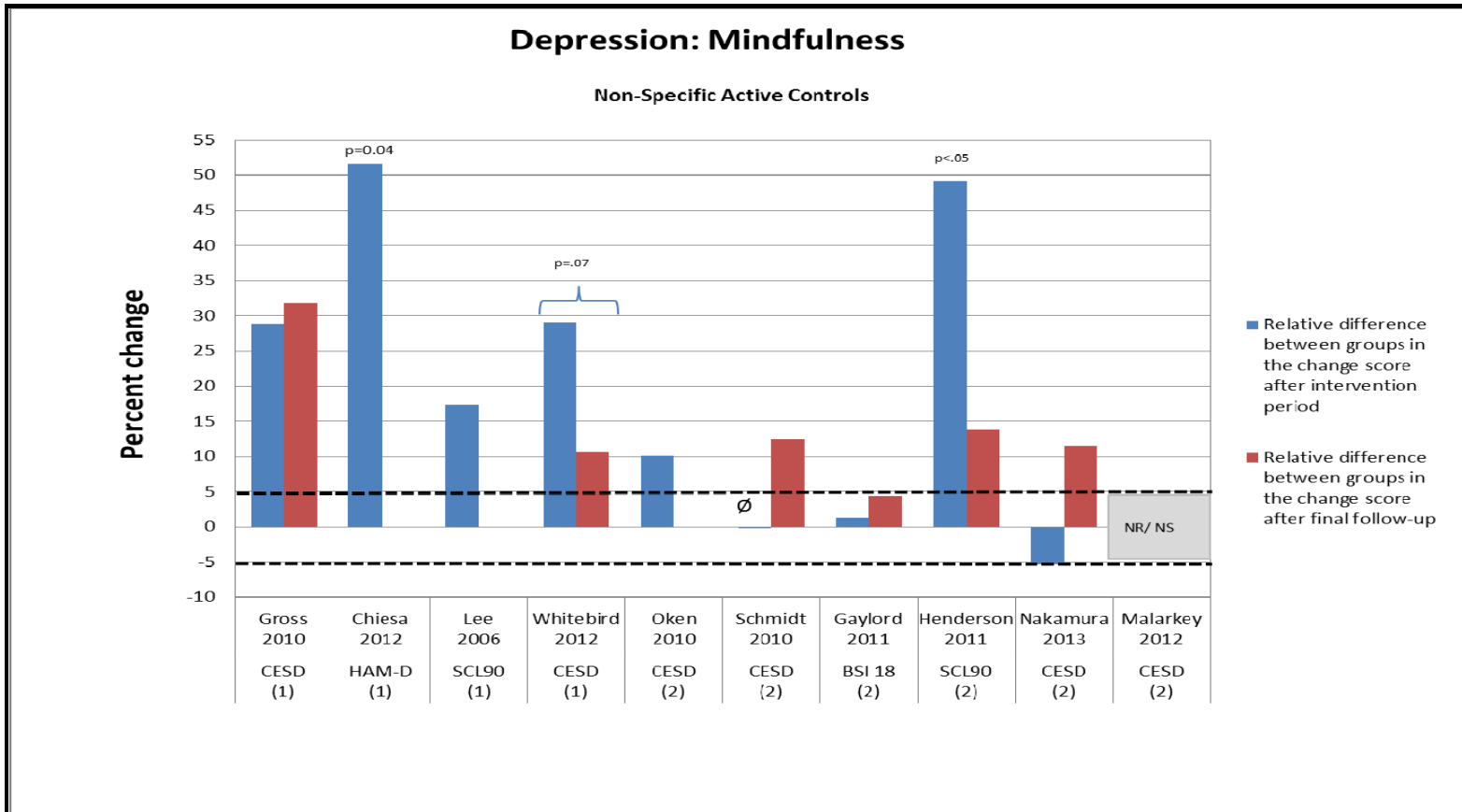
AC = Active Control; BSI = Brief Symptom Inventory; CSM = Clinically Standardized; CI = confidence interval; HE = Health Education; MBCT=Mindfulness-based Cognitive Therapy; MBSR = Mindfulness Based Stress Reduction; mos = months; SG = Support Group; STAI = State Trait Anxiety Inventory; TM = Transcendental Meditation; SMD = standardized mean differences; wks = weeks; Text describing results for comparisons with **specific** active controls for anxiety starts on page 86 of the AHRQ report

**Figure 6. Relative difference between groups in the changes in measures of general anxiety, in the mantra versus nonspecific active control/ specific active control studies**



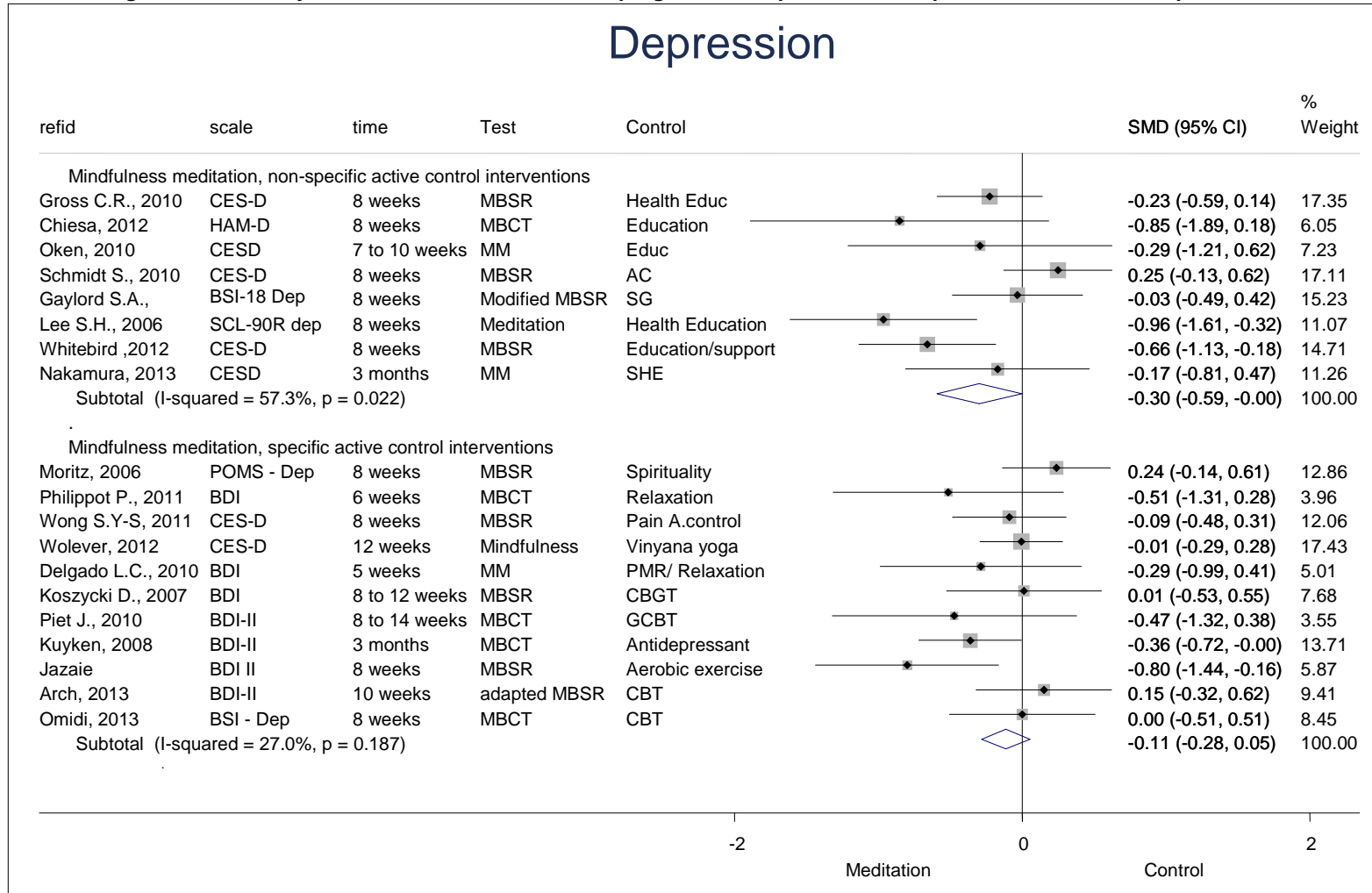
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- STAI = State Trait Anxiety Inventory.

**Figure 7. Relative difference between groups in the changes in measures of depression, in the mindfulness versus nonspecific active control studies**



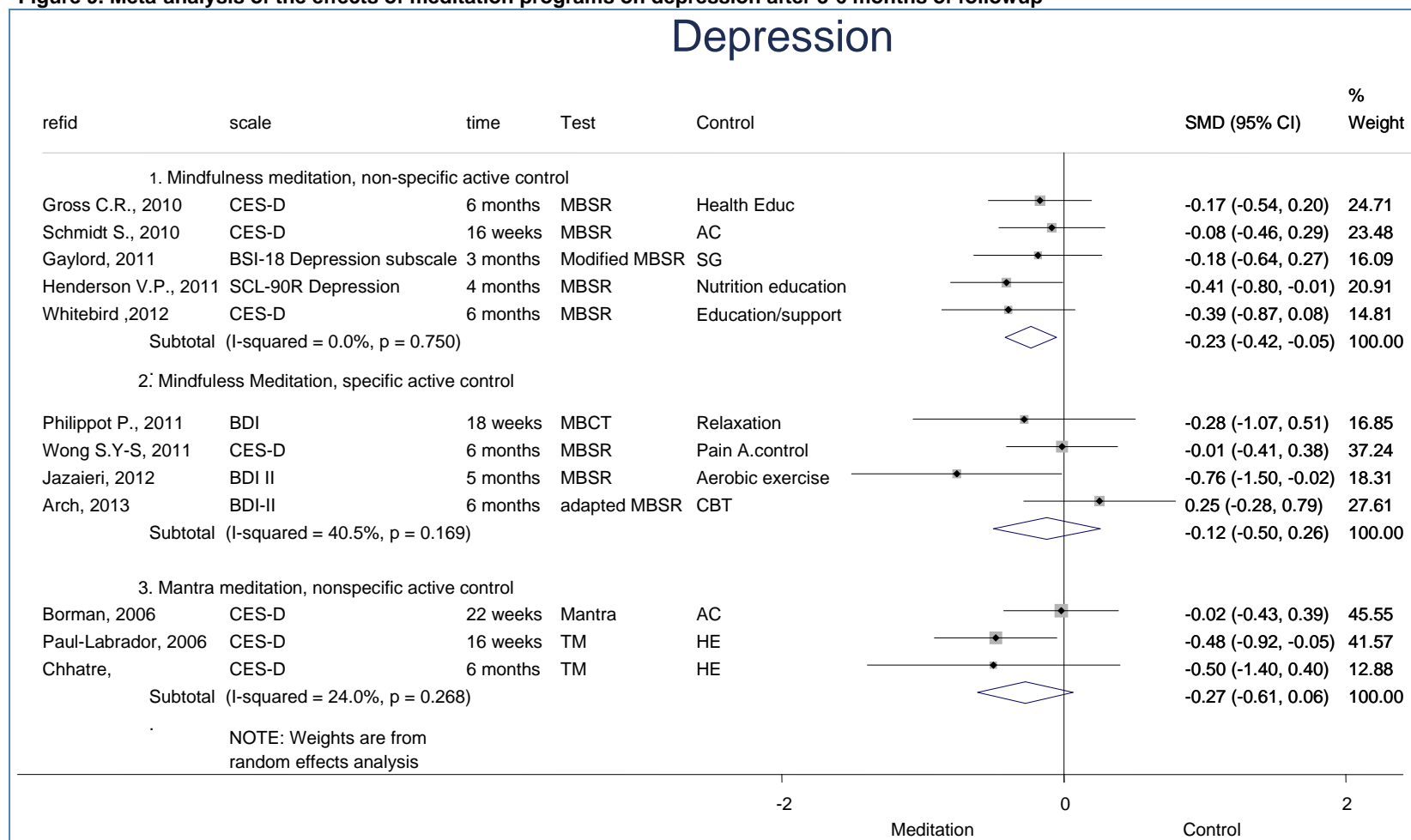
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- BSI-18= Brief Symptom Inventory 18, Anxiety subscale; CES-D=Center for Epidemiologic Studies Depression Scale; HAM-D=Hamilton Psychiatric Rating Scale for depression; SCL90 = Symptom Checklist 90, anxiety subscale

Figure 8. Meta-analysis of the effects of meditation programs on depression with up to 3 months of followup



AC = Active Control; BDI = Beck Depression Inventory; BSI = Beck Stress Inventory; CES-D = Center for Epidemiological Studies Depression Scale; CBGT = Cognitive Behavioral Group Therapy; CI = confidence interval; HE = Health Education; MBCT=Mindfulness-based Cognitive Therapy; MBSR = Mindfulness Based Stress Reduction; mos = Months; POMS = Profile of Mood States; SG = Support Group; SCL= Symptom Checklist; STAI = State Trait Anxiety Inventory; SMD = standardized mean differences TM = Transcendental Meditation; wks = weeks; Text describing results for comparisons with **specific** active controls for depression starts on page 90 of the AHRQ report

Figure 9. Meta-analysis of the effects of meditation programs on depression after 3-6 months of followup

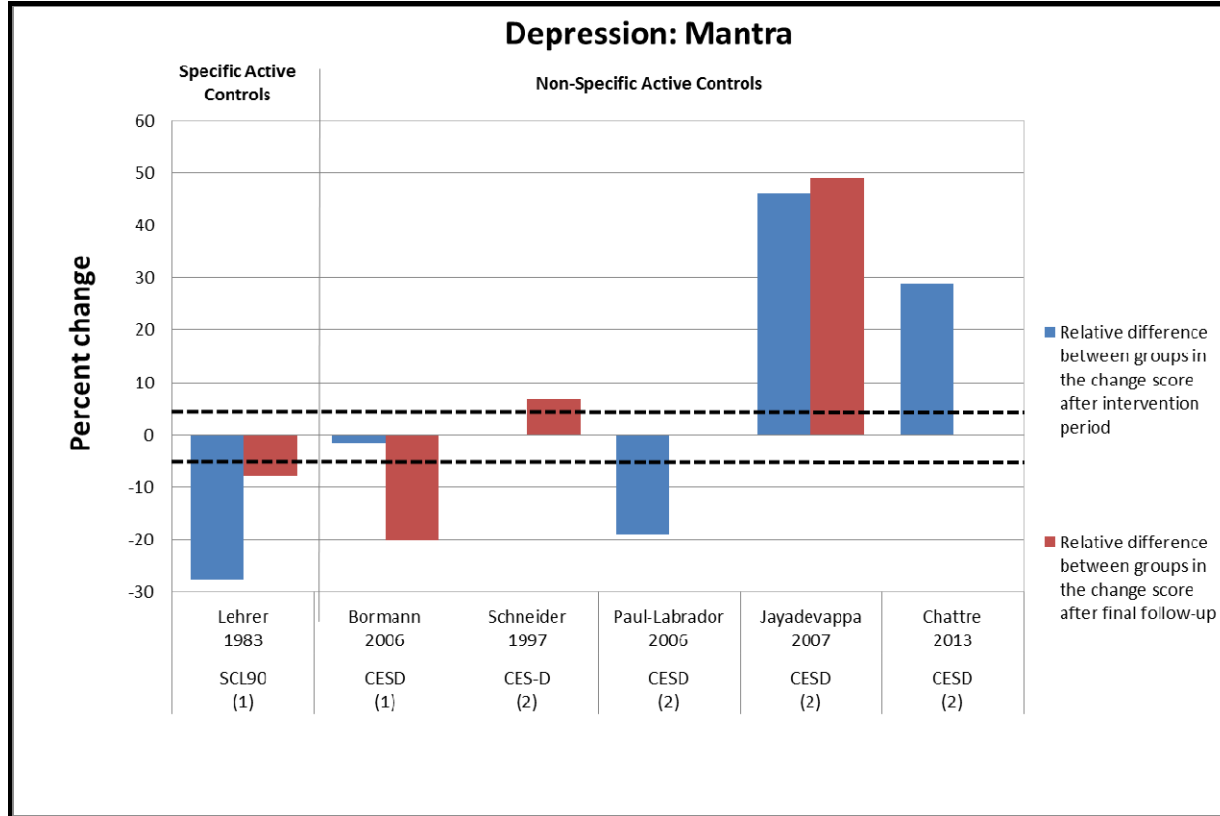


AC = Active Control; BDI = Beck Depression Inventory; BSI = Beck Stress Inventory; CES-D = Center for Epidemiological Studies Depression Scale; CI = confidence interval; HE = Health Education; MBSR = Mindfulness Based Stress Reduction; mos = months; POMS = Profile of Mood States; SCL= Symptom Checklist; SG = Support Group; SMD = standardized mean differences TM = Transcendental Meditation; wks = weeks;

Text describing results for comparisons with **specific** active controls for depression starts on page 90 of the AHRQ report

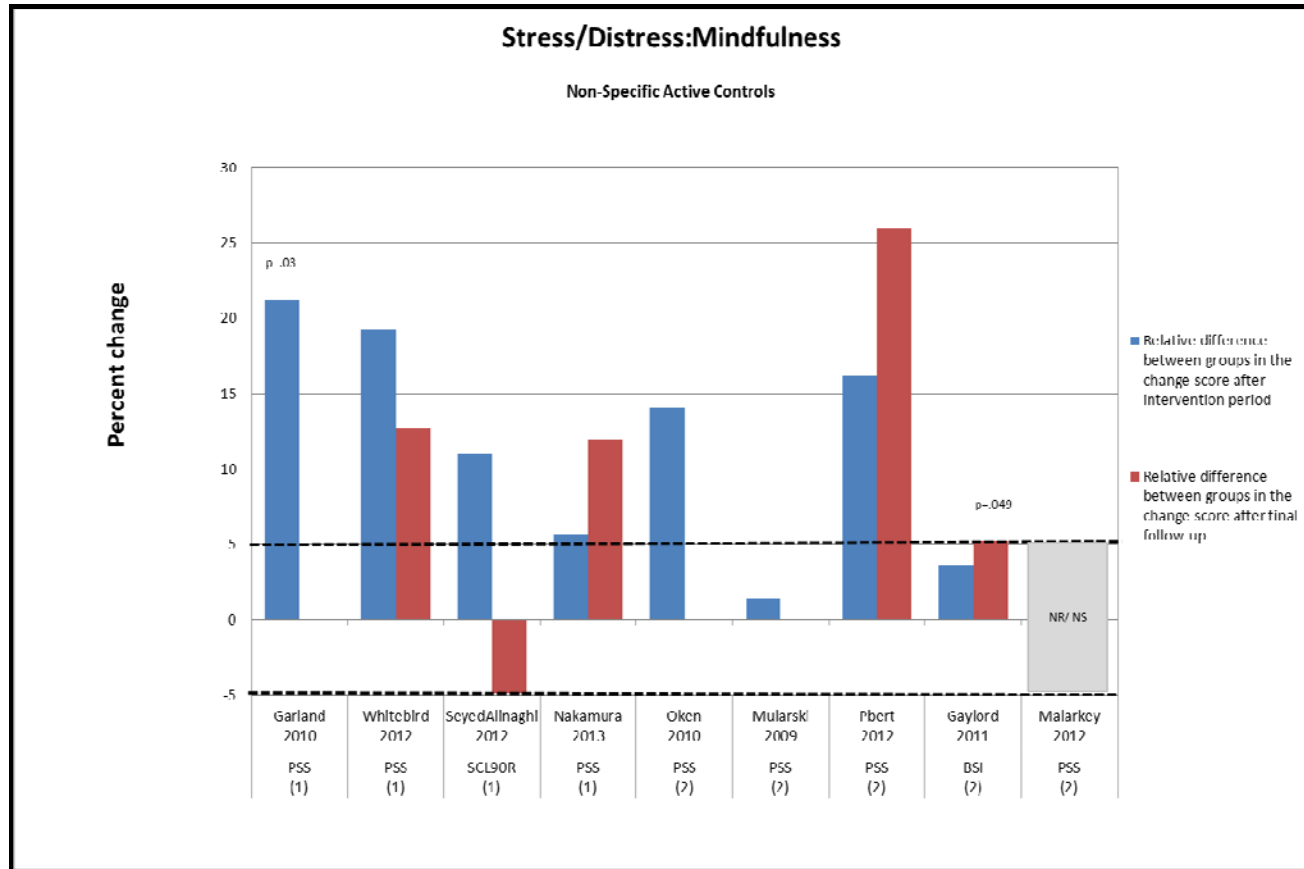


**Figure 10. Relative difference between groups in the changes in measures of depression, in the mantra versus nonspecific active control / specific active control studies**



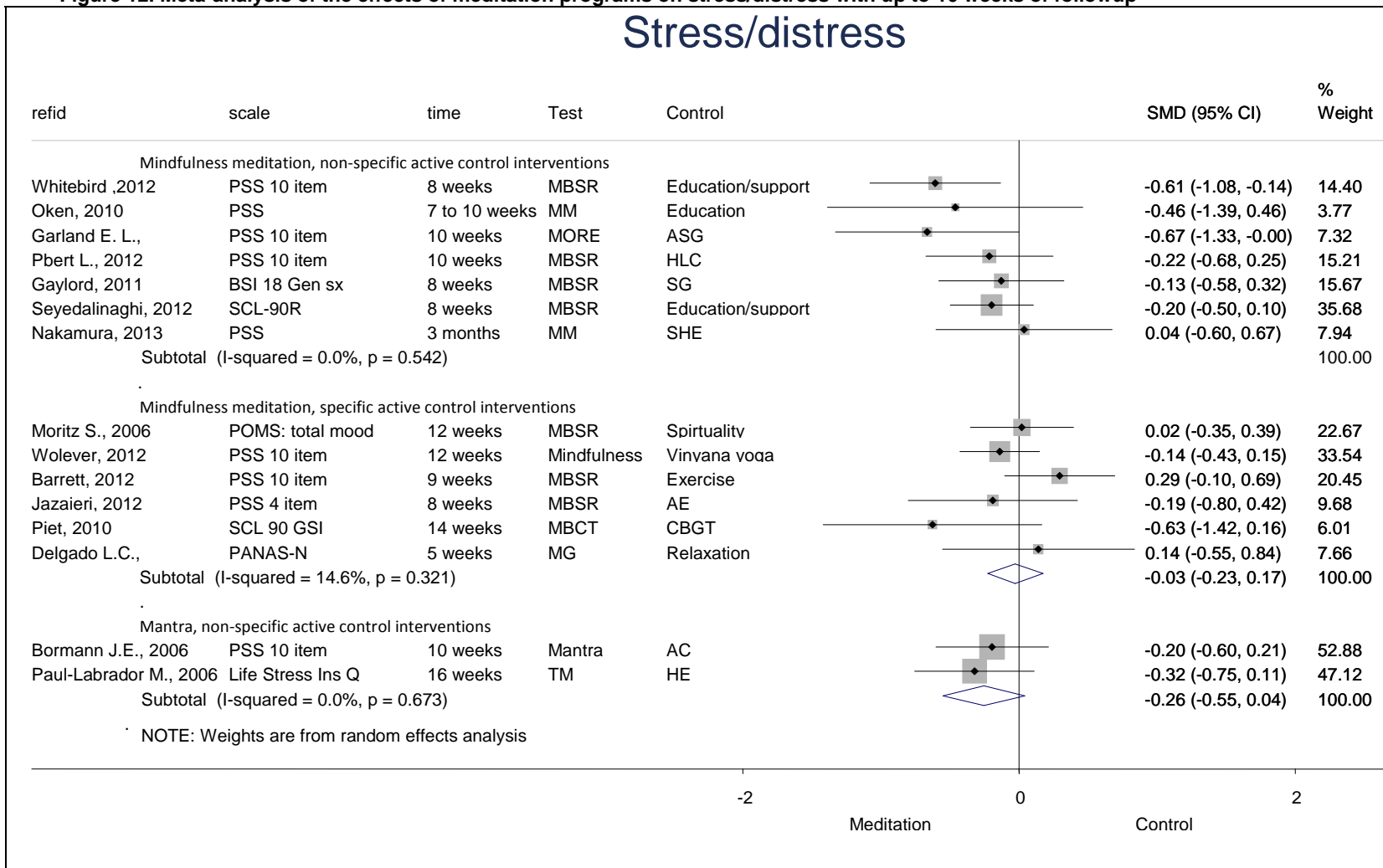
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. (2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- CES-D=Center for Epidemiologic Studies Depression Scale; SCL90 = Symptom Checklist 90, anxiety subscale

**Figure 11. Relative difference between groups in the changes in measures of stress/distress, in the mindfulness versus nonspecific active control studies**



- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $((19-10)-(16-11))/10 \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- BSI = Beck Stress Inventory; PSS = Perceived Stress Scale; SCL = Symptom Checklist-90 Depression Subscale.

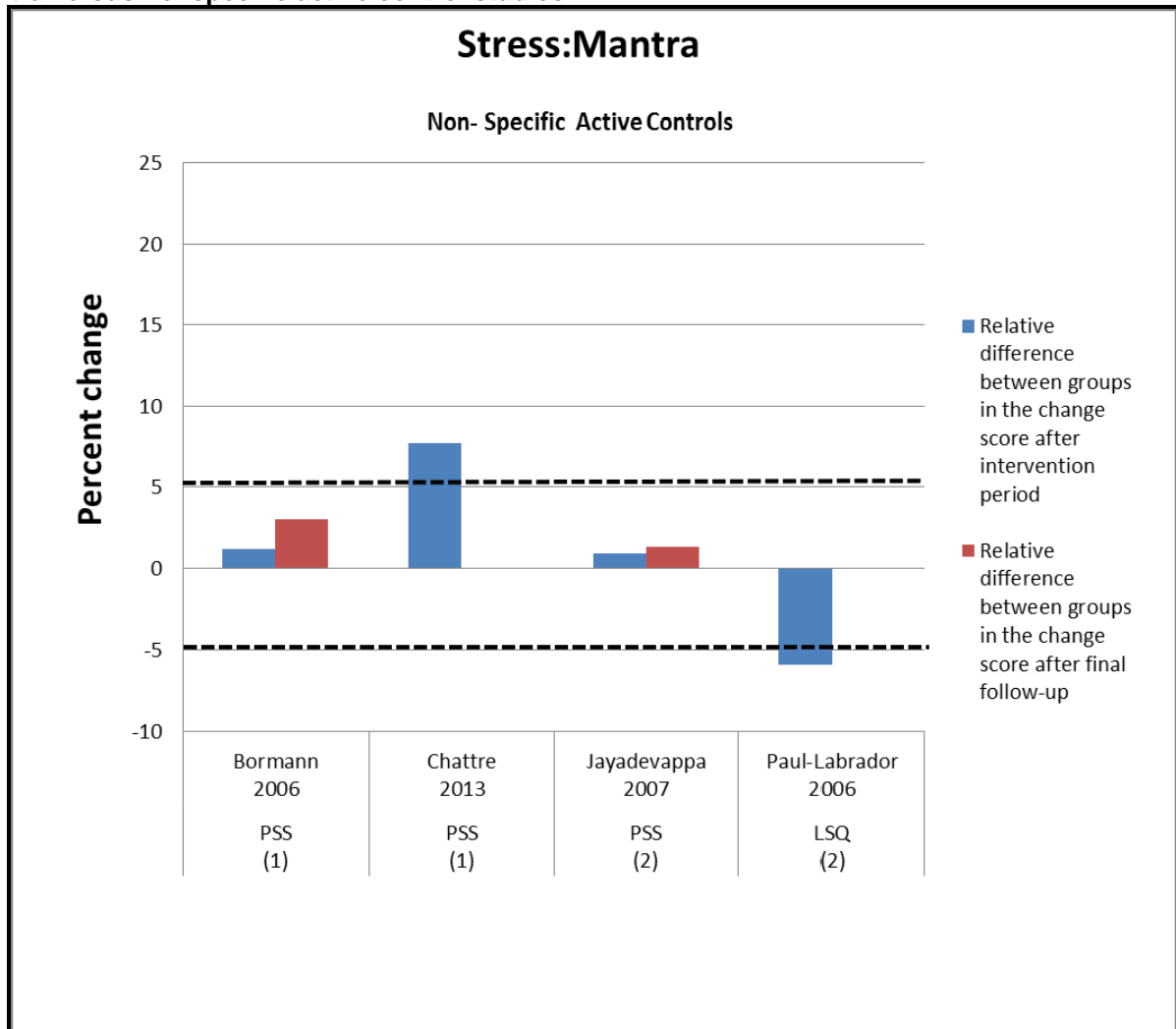
Figure 12. Meta-analysis of the effects of meditation programs on stress/distress with up to 16 weeks of followup



AC = Active Control; AE = Aerobic Exercise; ASG = Alcohol Dependence Support Group; BSI = Beck Stress Inventory; CBGT = Cognitive Behavioral Group Therapy; CI = confidence interval; HE = Health Education; HLC = Healthy Living Course; MBSR = Mindfulness-based Stress Reduction; MBCT = Mindfulness-based Cognitive Therapy; MM = Mindfulness Meditation; MORE = Mindfulness-oriented Recovery Enhancement; PANAS-N = Positive and Negative Affect Scale - Negative mood; POMS = Profile of Mood States; PSS = Perceived Stress Scale; SCL = Symptom Checklist; SG = Support Group; SMD = standardized mean differences; TM = Transcendental Meditation.

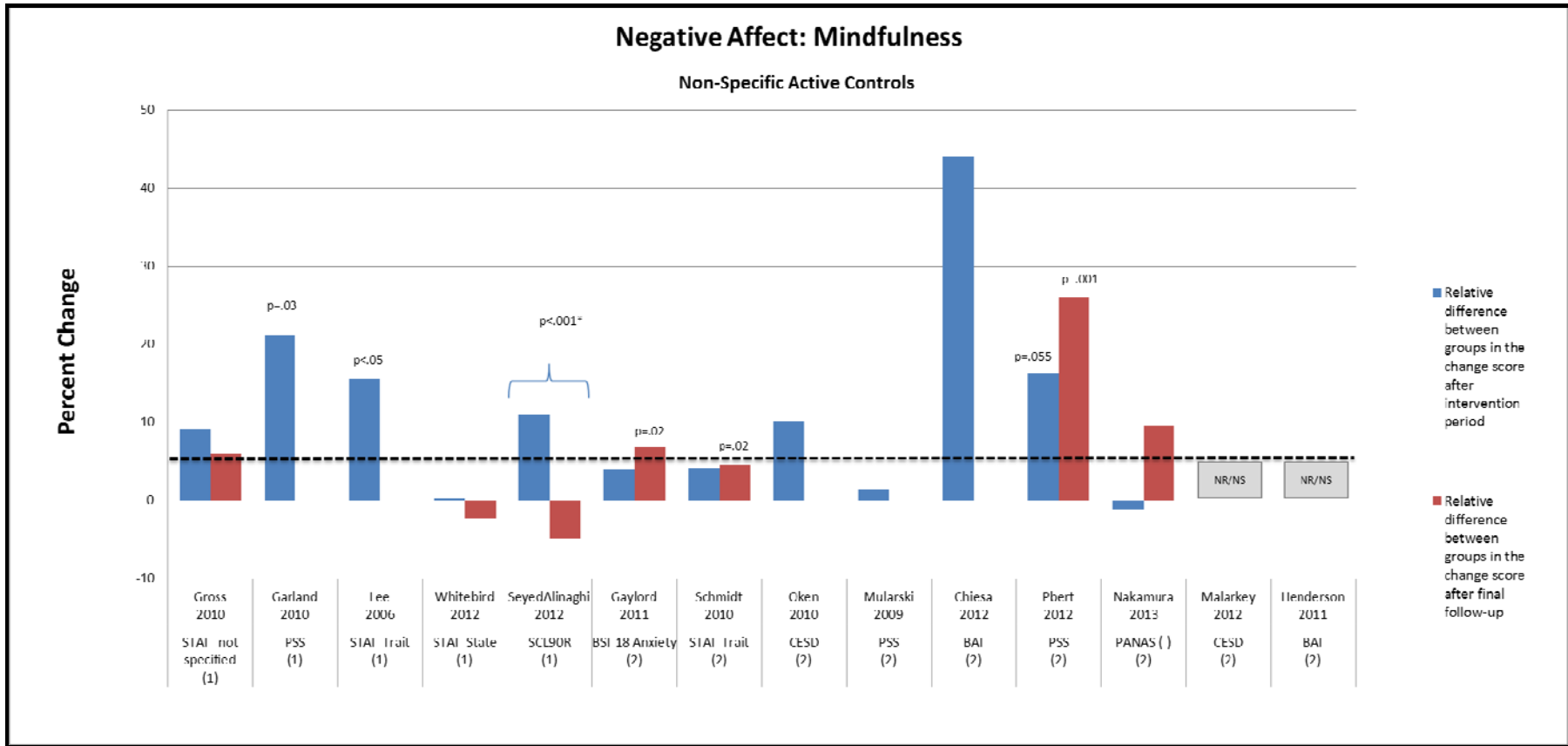
Text describing results for comparisons with **specific** active controls for stress/distress starts on page 94 of the AHRQ report

**Figure 13. Relative difference between groups in the changes in measures of stress, in the mantra versus nonspecific active control studies**



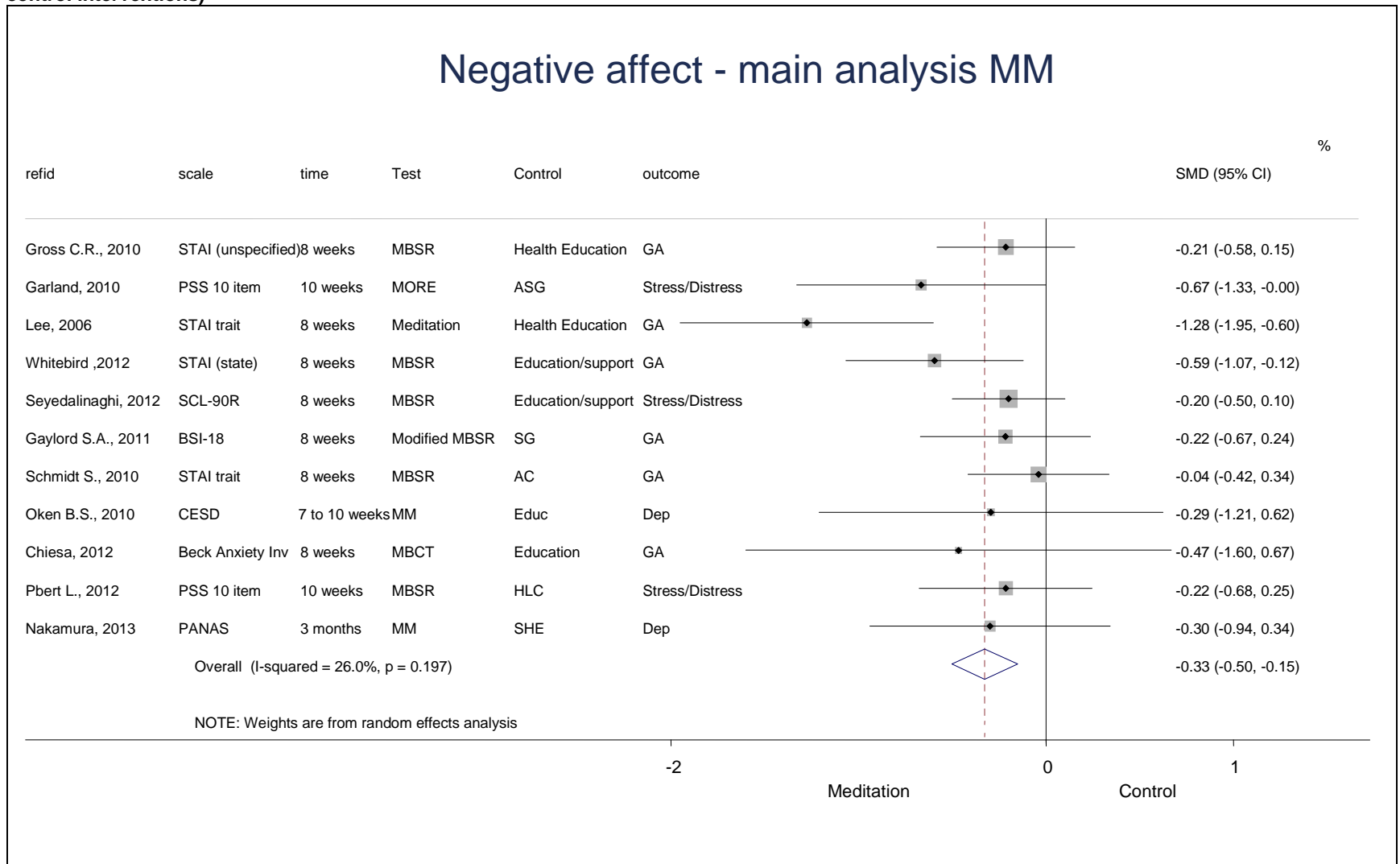
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. (2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- PSS = Perceived Stress Scale (PSS); LSQ = Life Stress Ins Q

**Figure 14. Relative difference between groups in the changes in negative affect, in the mindfulness versus nonspecific active control studies**



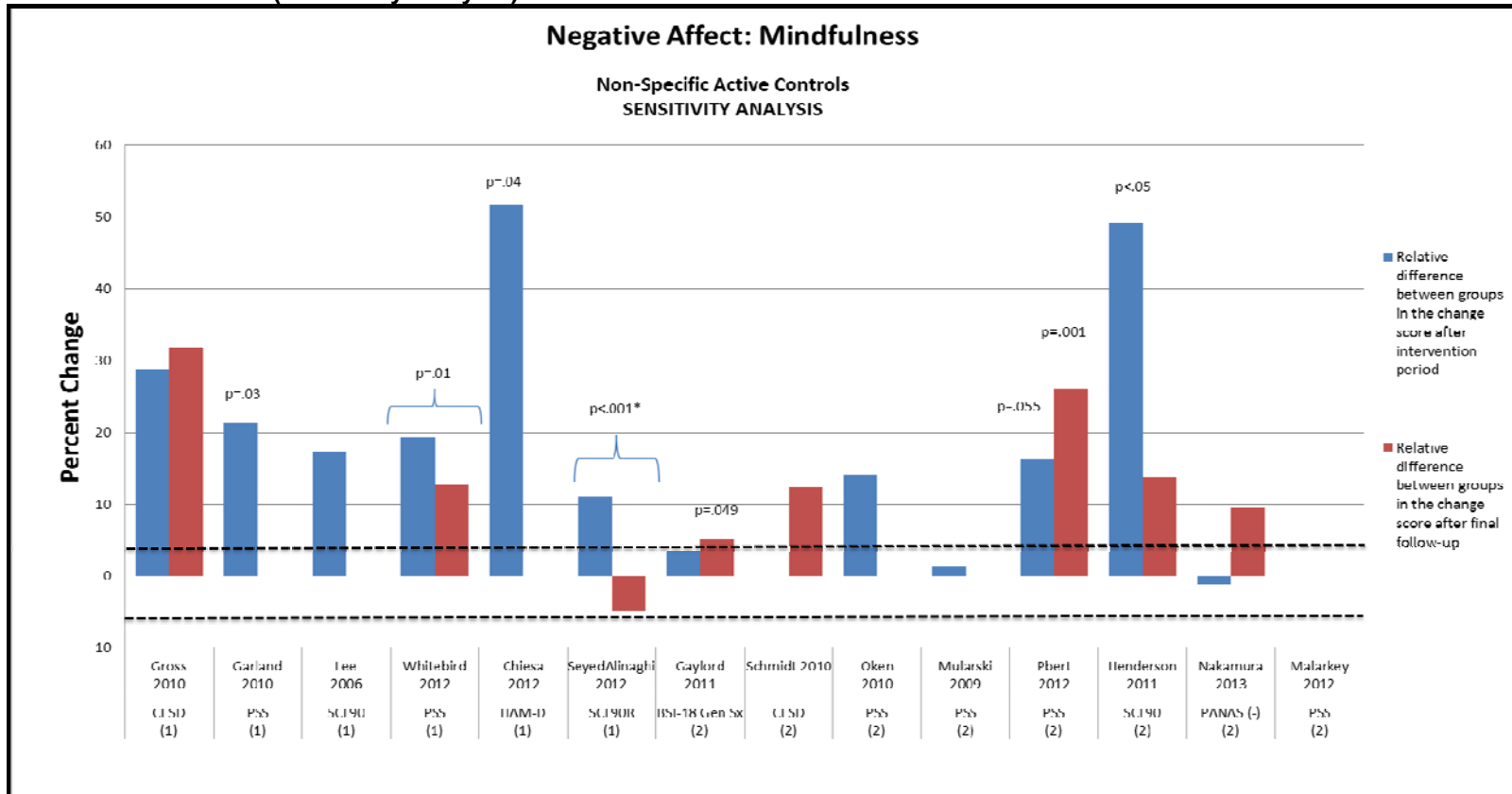
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $((19-10)-(16-11))/10 \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. (2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
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- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- BAI=Beck Anxiety inventory; BSI-18: Brief Symptom Inventory; CESD = Center for Epidemiologic Studies Depression Scale; STAI = State Trait Anxiety Inventory; PSS = Perceived Stress Scale; SCL90: Symptom Checklist-90.

**Figure 15. Meta-analysis of the effects of meditation programs on negative affect-main analysis (mindfulness meditation versus nonspecific active control interventions)**



AC = Active Control; ASG = Alcohol Dependence Support Group; BAI=Beck Anxiety Inventory; BSI = Beck Stress Inventory; CESD = Center for Epidemiologic Studies Depression Scale; CI = confidence interval; GA = General Anxiety; HE = Health Education; HLC = Healthy Living Course; MBSR = Mindfulness-based Stress Reduction; MBCT = Mindfulness-based Cognitive Therapy; MM = Mindfulness Meditation; MORE = Mindfulness-oriented Recovery Enhancement; PSS = Perceived Stress Scale; SCL = Symptom Checklist; SG = Support Group; STAI = State Trait Anxiety Inventory; SMD = standardized mean differences PSS = Perceived Stress Scale; wks=weeks.

**Figure 16. Relative difference between groups in the changes in measures of negative affect, in the mindfulness versus nonspecific active control studies (sensitivity analysis)**

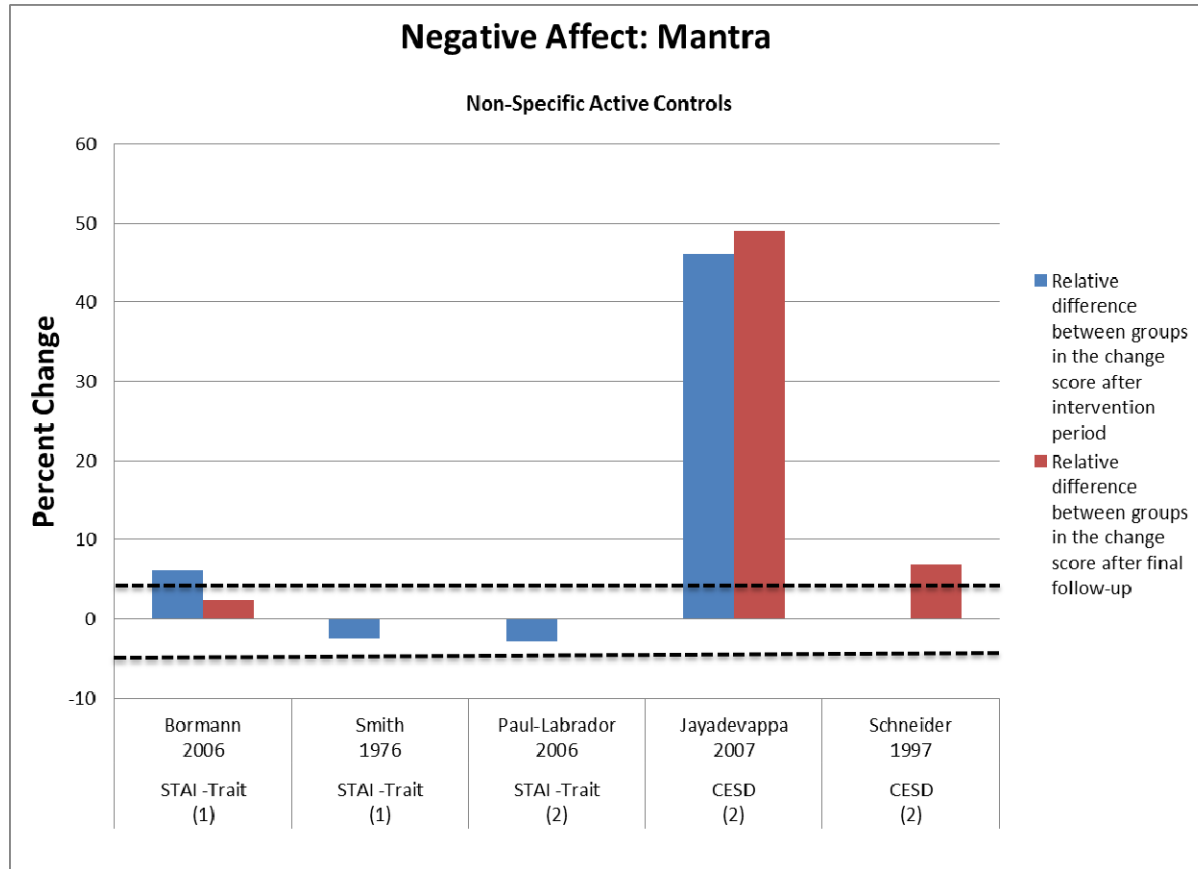


- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- BSI-18 = Brief Symptom Inventory, General Symptom Severity Subscale; CESD=Center for Epidemiologic studies Depression Scale; HAM-D=Hamilton Psychiatric Rating Scale for Depression; STAI = State Trait Anxiety Inventory; PSS = Perceived Stress Scale; SCL90-R = Symptom Checklist 90 Depression subscale..



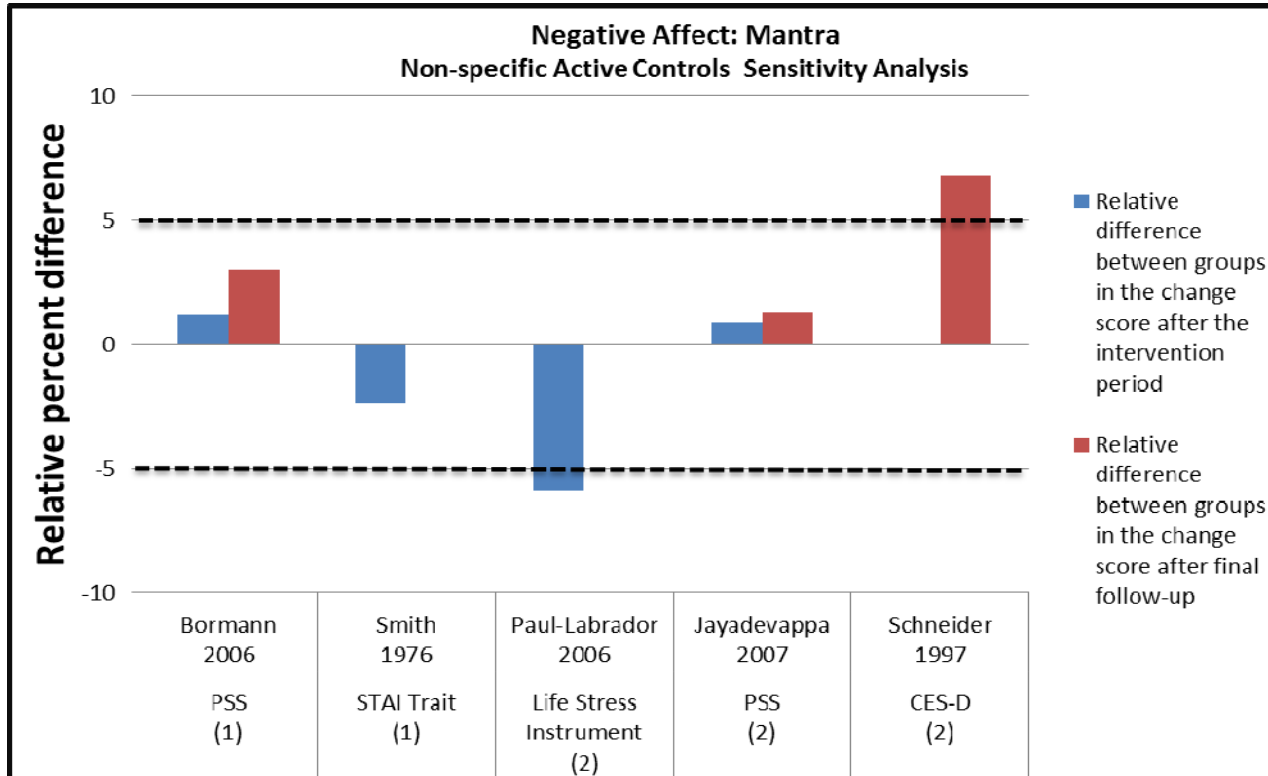


**Figure 18. Relative difference between groups in the changes in measures of negative affect, in the mantra versus nonspecific active control studies**



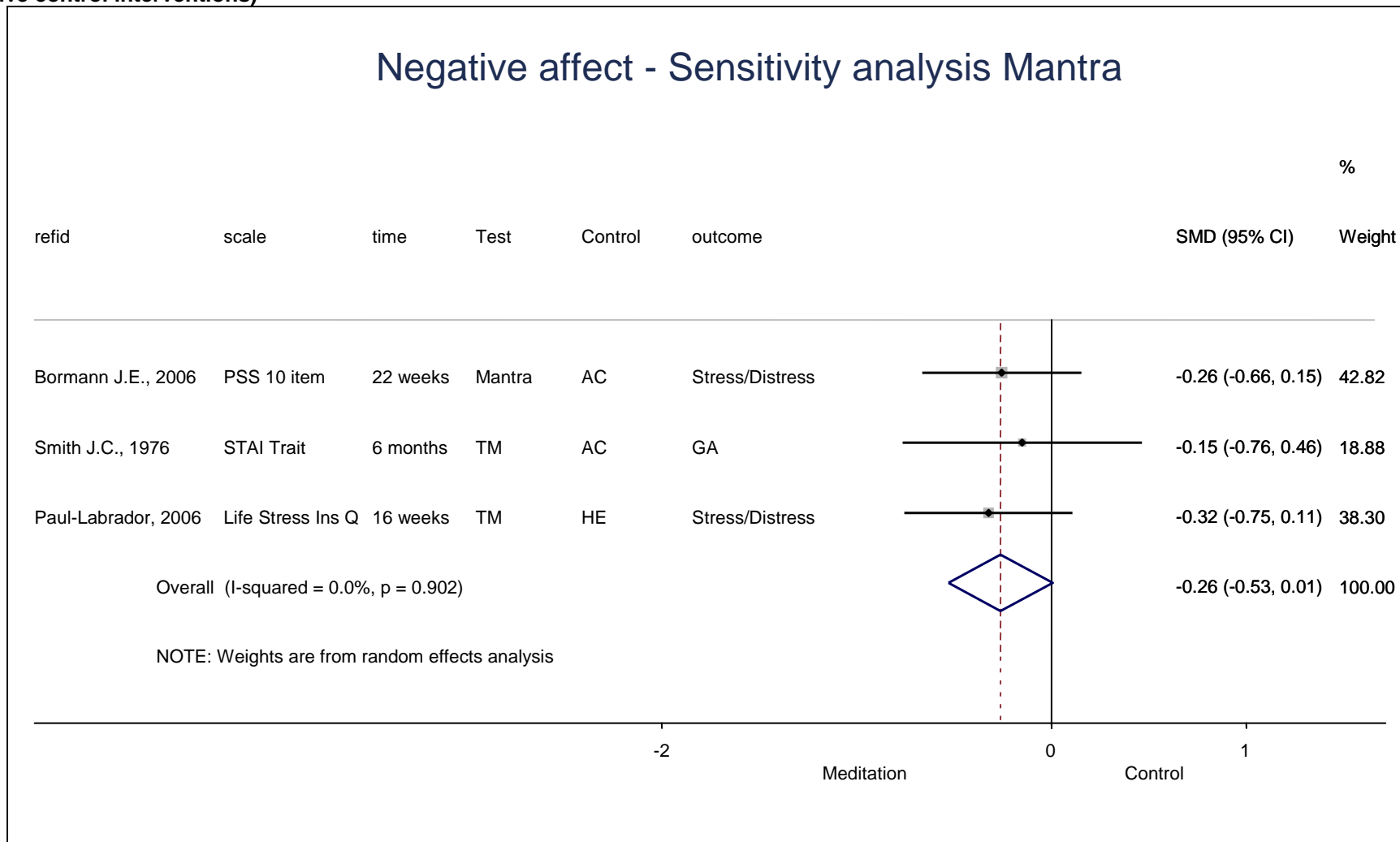
1. **Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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3. NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
4. Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
5. A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
6. CESD=Center for Epidemilogic studies Depression Scale; STAI = State Trait Anxiety Inventory; PSS = Perceived Stress Scale.

**Figure 19. Relative difference between groups in the changes in measures negative affect, in the mantra versus nonspecific active control studies (sensitivity analysis)**



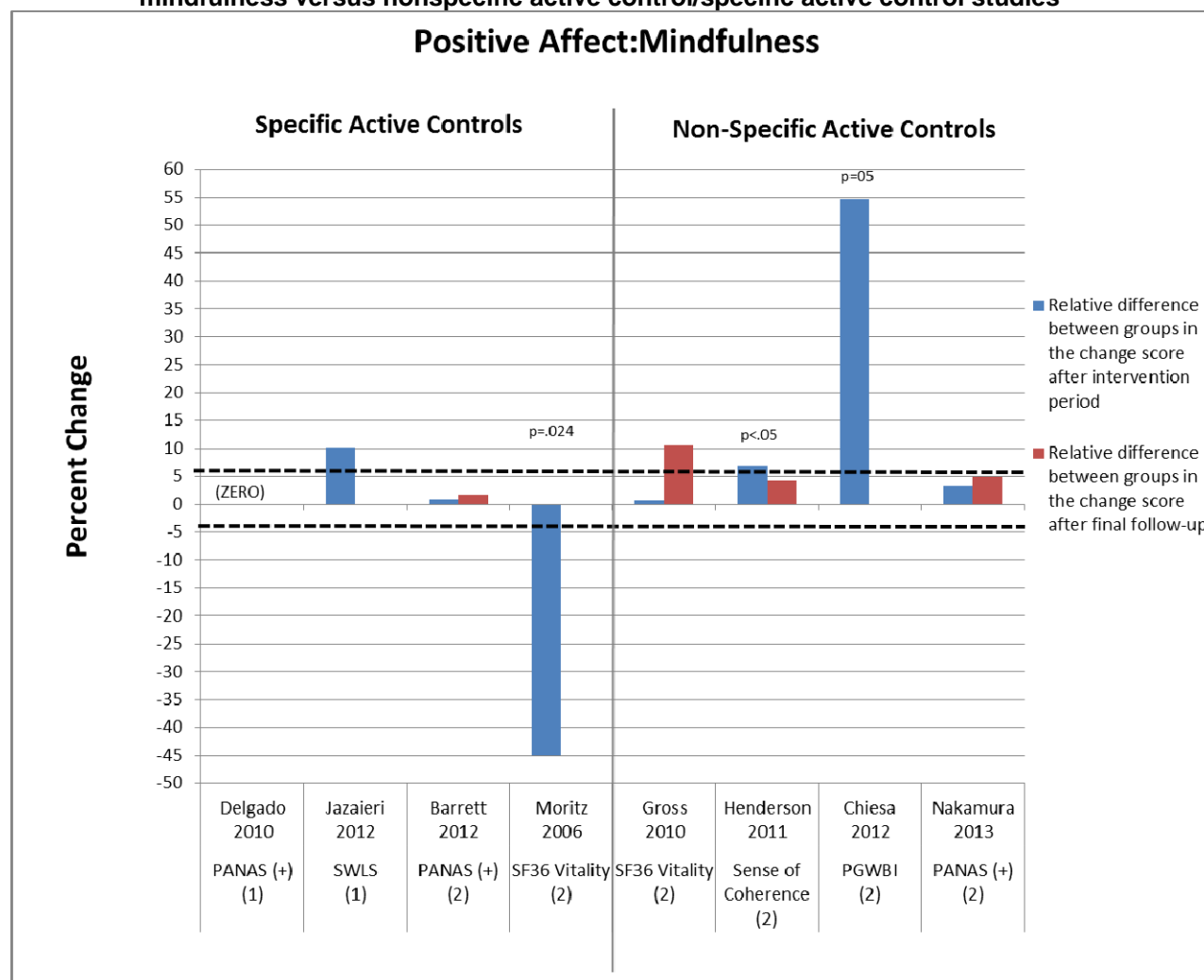
- 1. Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- 2. (1): Primary outcome.** If the trial did not specify primary or secondary outcomes, then this is either the outcome that the population was selected on or identified as a primary focus of the study.
- 3. (2): Secondary outcome.** If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- 4.** Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- 5.** A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value with a bar, the outcome was not significant in the original study publication.
- 6.** CESD=Center for Epidemiologic studies Depression Scale; STAI = State Trait Anxiety Inventory; PSS = Perceived Stress Scale.

**Figure 20. Meta-analysis of the effects of mantra meditation programs on negative affect-sensitivity analysis (mantra vs. nonspecific active control interventions)**



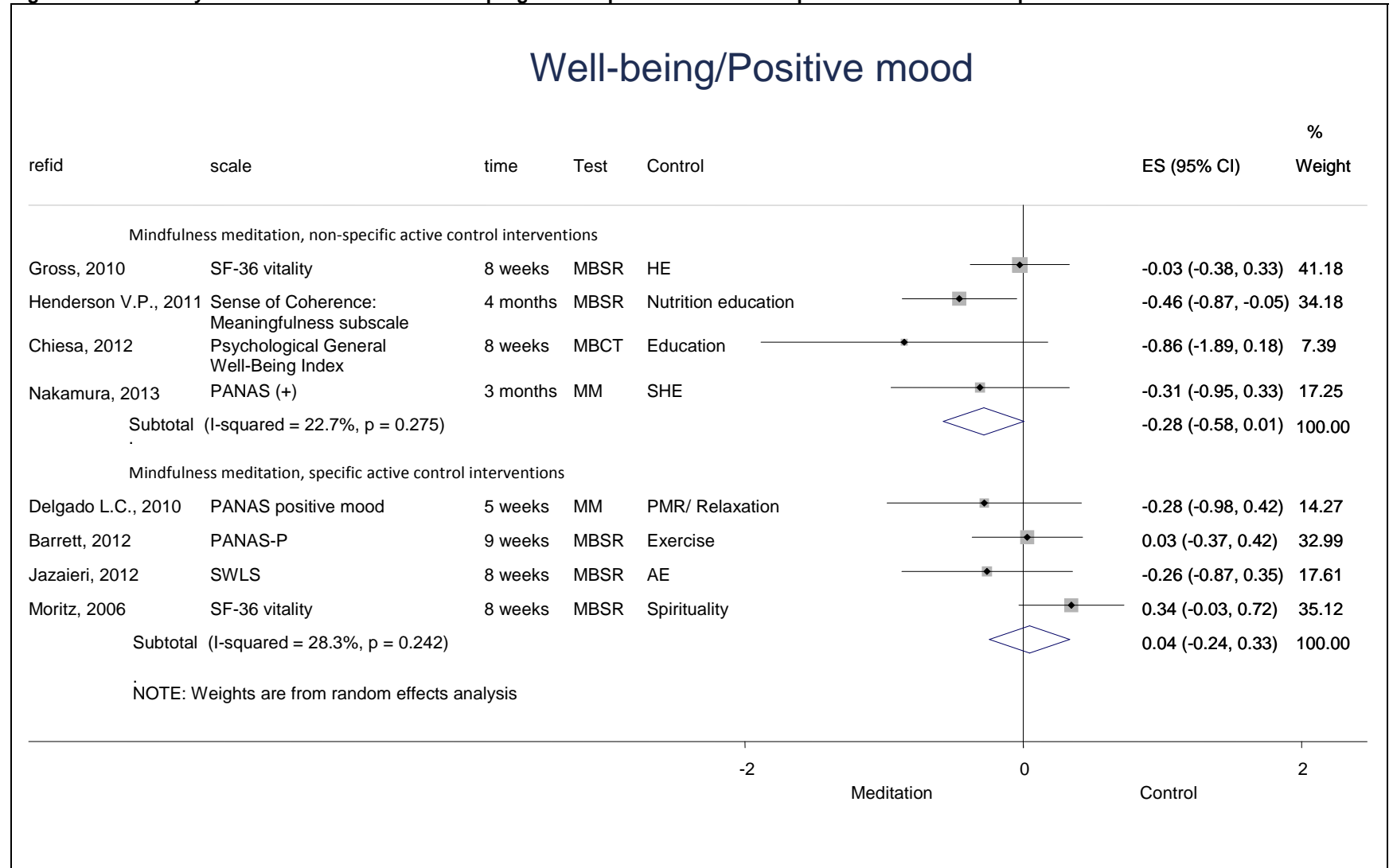
AC = Active Control; CI = confidence interval; HE=Health Education; GA = General Anxiety; mos = months; PSS = Perceived Stress Scale; STAI = State Trait Anxiety Inventory; TM = Transcendental Meditation; SMD = standardized mean differences wks = weeks.

**Figure 21: Relative difference between groups in the changes in measures of positive affect, in the mindfulness versus nonspecific active control/specific active control studies**



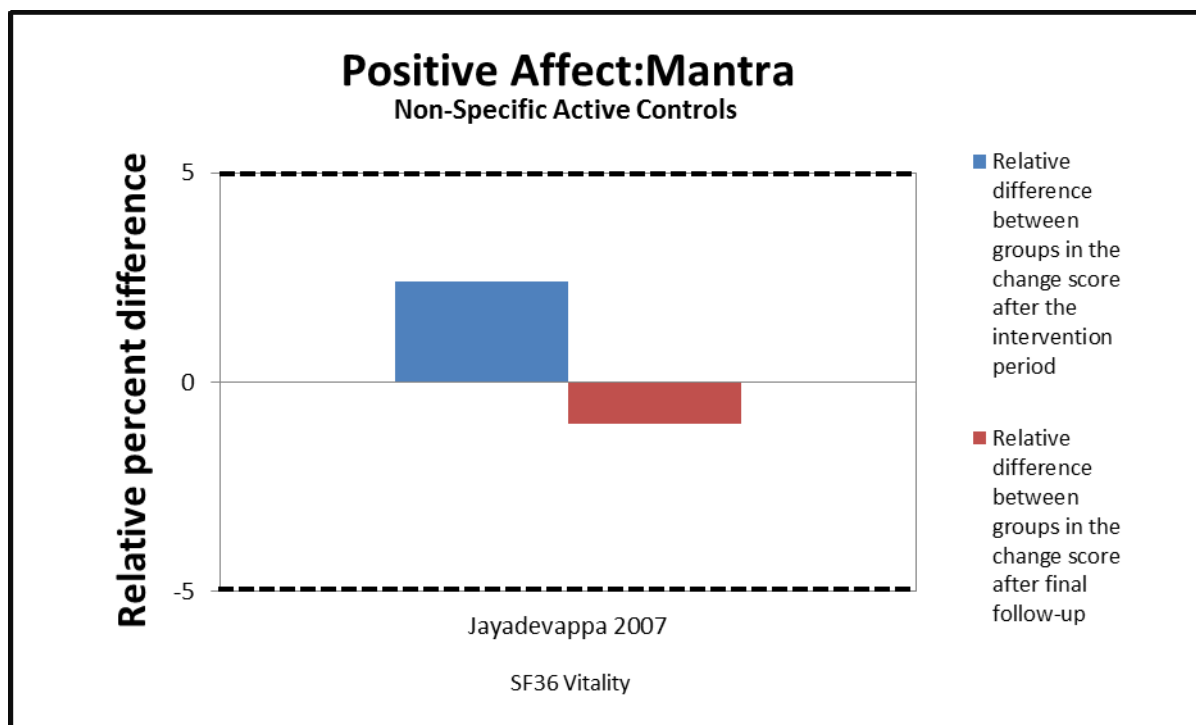
1. **Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $((19-10)-(16-11))/10 \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
2. (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. (2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
3. NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
4. Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
5. A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
6. PANAS = Positive and Negative Affect Scale; PGWBI=Psychological General Well-being Index; SF-36 = Short Form-36; SWLS = Satisfaction with Life scale
7. Text describing results for comparisons with specific active controls for positive affect starts on page 97

**Figure 22. Meta-analysis of the effects of meditation programs on positive affect with up to 4 months of followup**



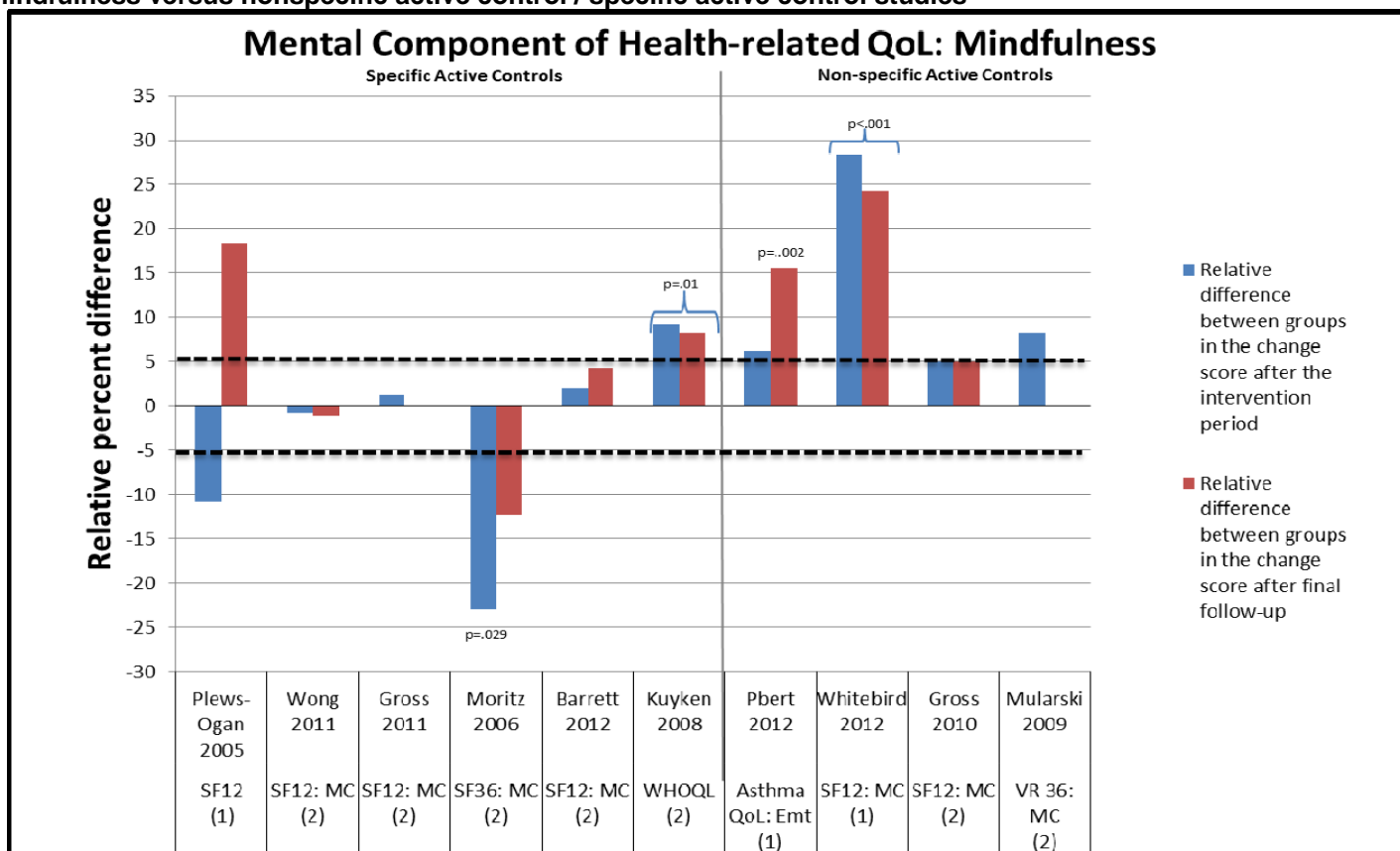
AE = Aerobic Exercise; CI = confidence interval ; HE = Health Education; HLC = Healthy Living Course; HAM-D = Hamilton Psychiatric Rating Scale for depression; MBSR = Mindfulness-based Stress Reduction; MBCT = Mindfulness-based Cognitive Therapy; MM = Mindfulness Meditation; mos=months; SF-36 = Short Form-36; SWLS = Satisfaction with Life Scale; PGWBI = Psychological General Well-being Index; PANAS = Positive and Negative Affect Score; SMD = standardized mean differences ; wks = weeks.

**Figure 23. Relative difference between groups in the changes in measures of positive affect, in the mantra versus nonspecific active control studies**



1. **Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
2. (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
3. NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
4. Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
5. A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
6. SF-36=Short Form-36

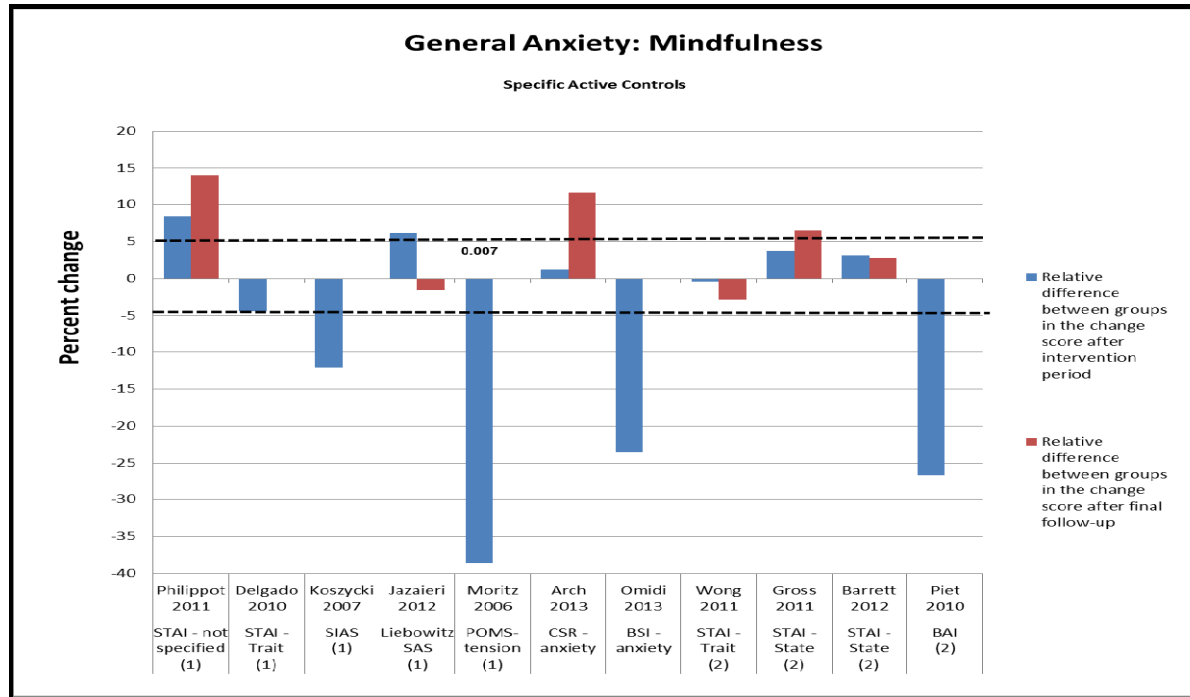
**Figure 24. Relative difference between groups in the changes in measures of studies mental component of health-related quality of life, in the mindfulness versus nonspecific active control / specific active control studies**



- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- SF-12: MC = Short Form-12: Mental Component Score of Health-related Quality of Life; SF-36: MC = Short Form 36: Mental Component Score of Health-related Quality of Life; WHOQL = World Health Organization Quality of Life Assessment; VR36 = Veterans RAND 36 Item Health Survey.

Text describing results for comparisons with **specific** active controls for mental component of health-related quality of life starts on page 88 of the AHRQ report

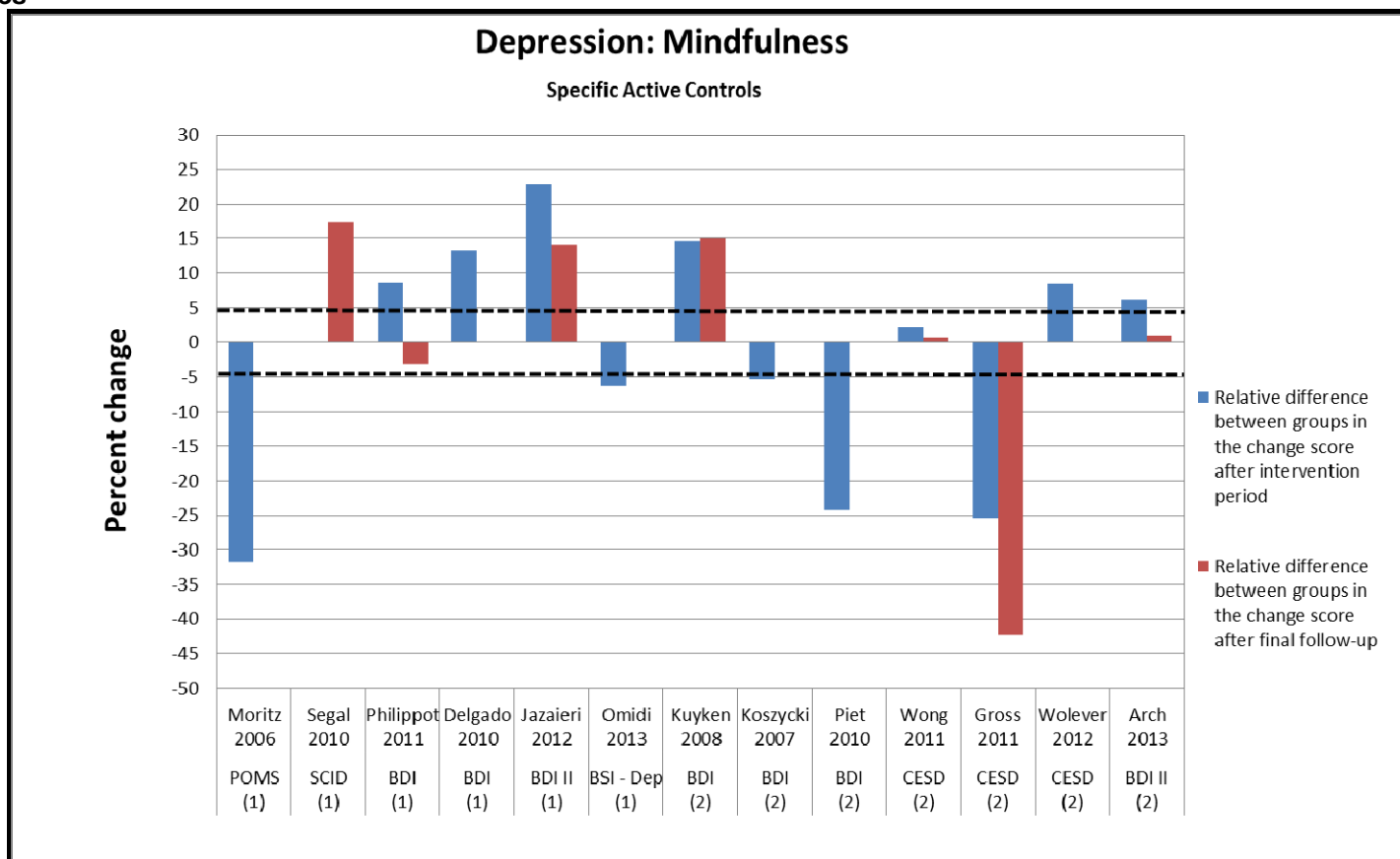
**Figure 25. Relative difference between groups in the changes in measures of general anxiety, in the mindfulness versus specific active control studies**



1. **Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
2. (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study. (2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
3. NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
4. Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
5. A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
6. BAI = Beck Anxiety Index; POMS = Profile of Mood States; SIAS = Social Interaction Scale; STAI = State Trait Anxiety Index.

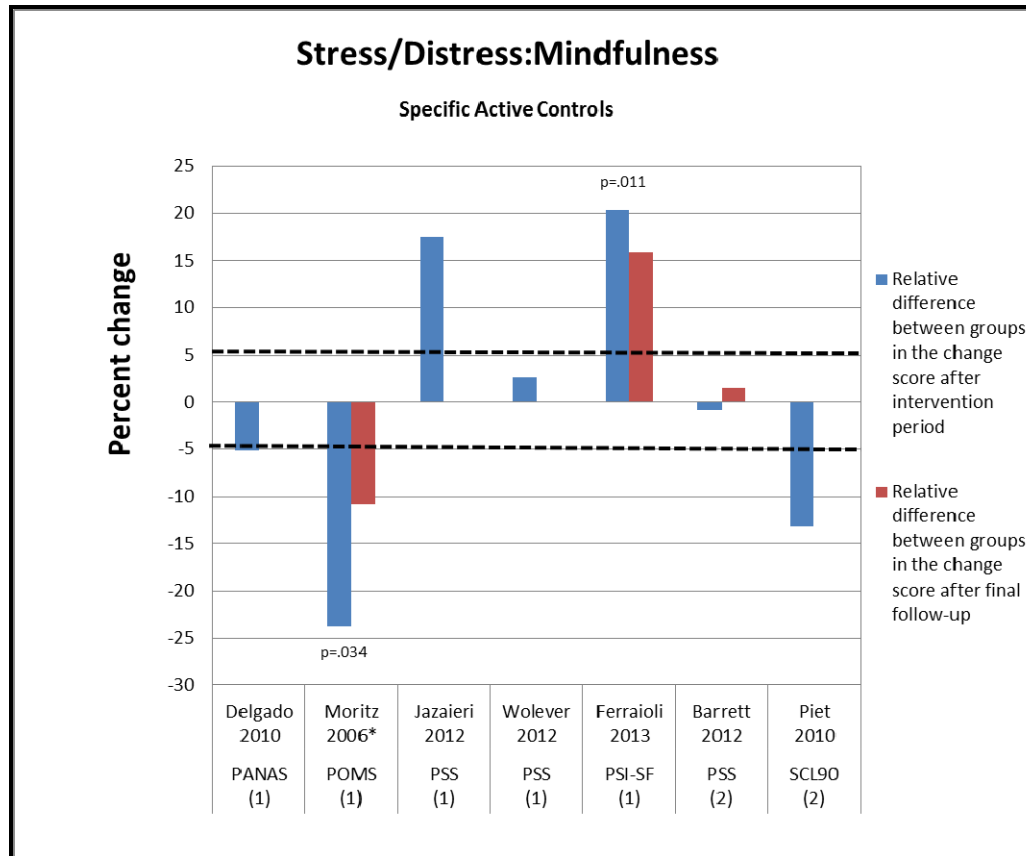


**Figure 26. Relative difference between groups in the changes in measures of depression, in the mindfulness versus specific active control studies**



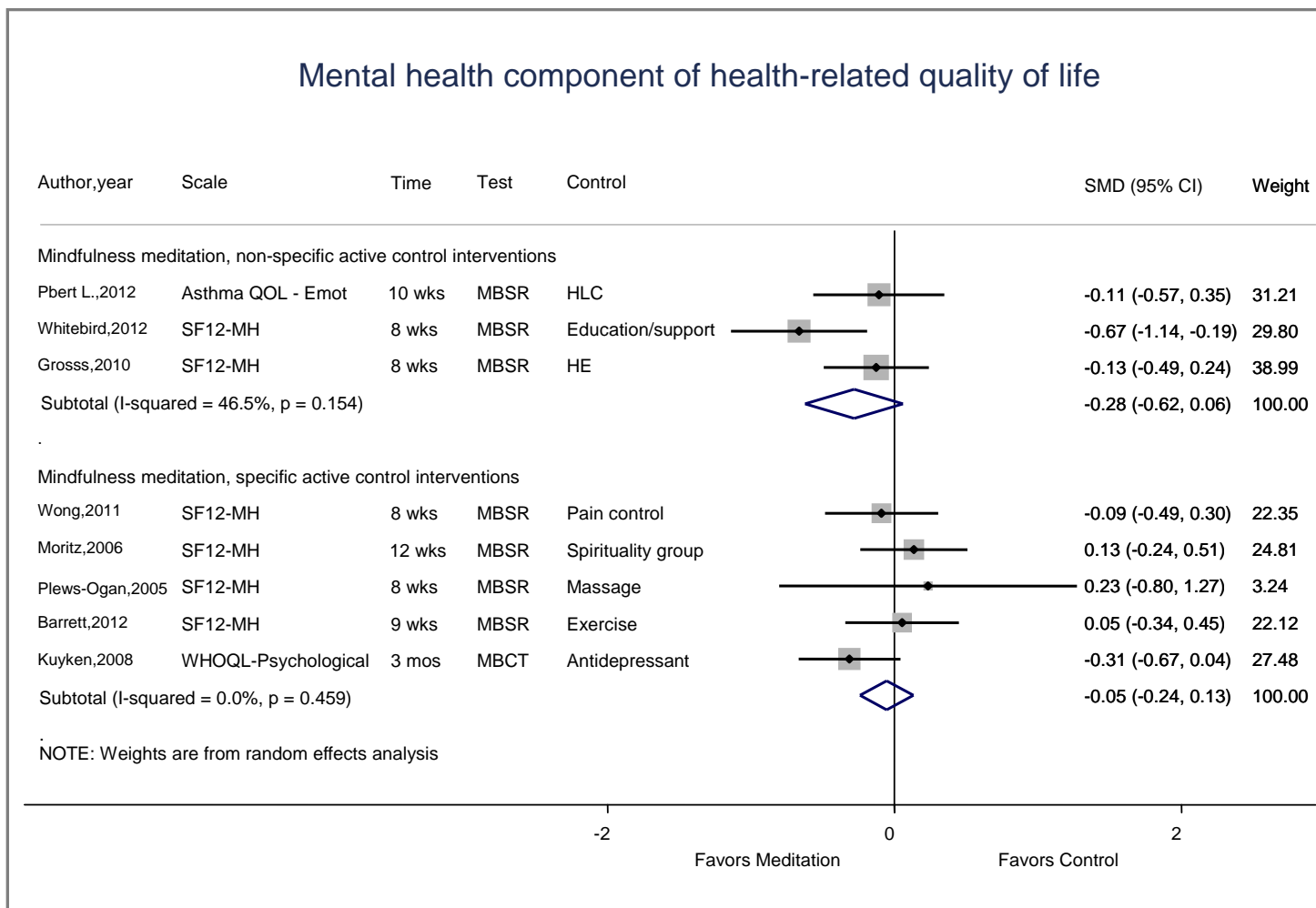
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
- (1): Primary outcome. If the trial did not specify primary or secondary outcomes, this is either the outcome that the population was selected on or identified as a primary focus of the study.  
(2): Secondary outcome. If the trial did not specify primary or secondary outcomes, then this is not the outcome that the population was selected nor identified as a primary focus of the study.
- NR / NS = Not Reported/Not significant. The trial measured this outcome and stated they were nonsignificant, and did not report actual results.
- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- BDI = Beck Depression Inventory; CESD = Center for Epidemiologic Studies Depression Scale; POMS = Profile of Mood States; SCID = Structured Clinical Interview.

**Figure 27. Relative difference between groups in the changes in measures of distress, in the mindfulness versus specific active control studies**



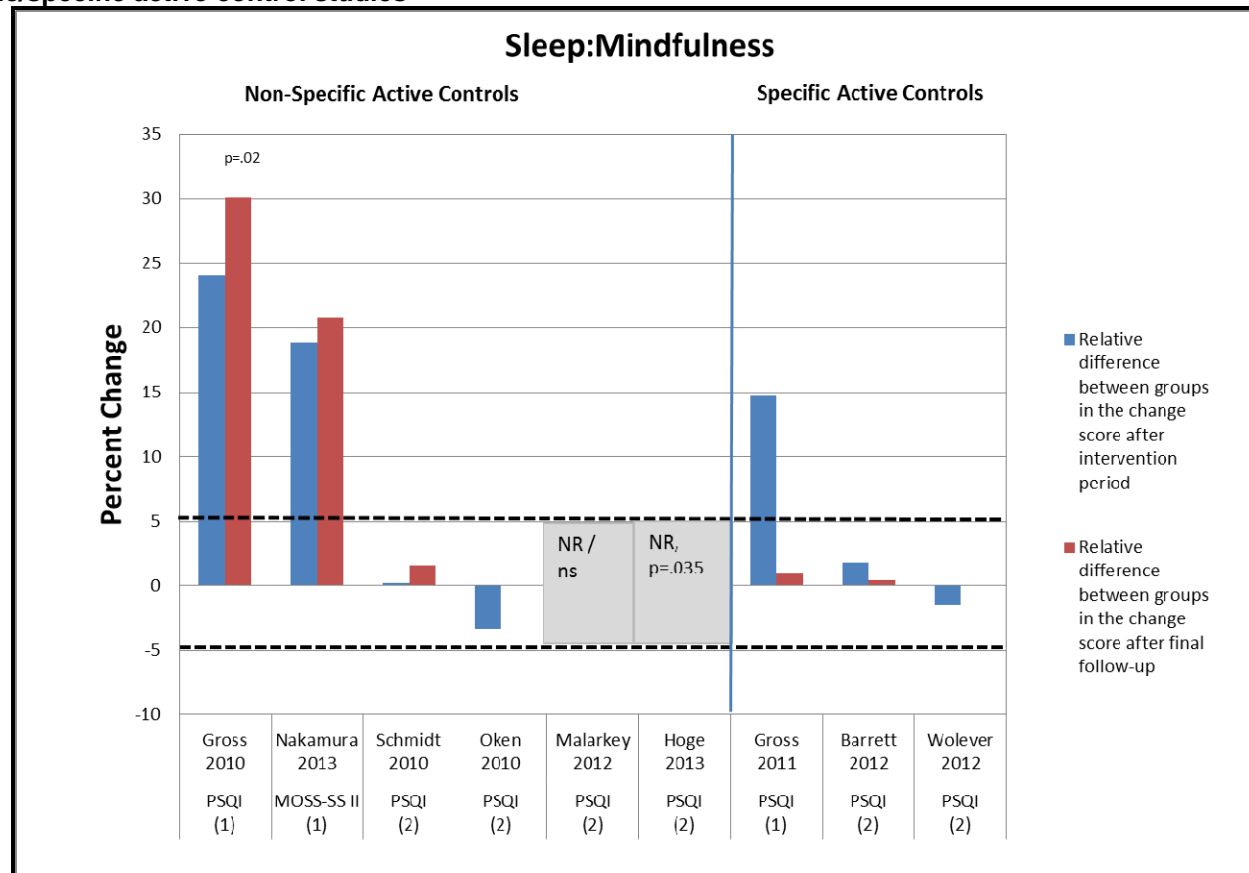
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- PANAS = Positive and Negative Affect Schedule; POMS = Profile of Mood States; PSS=Perceived Stress Scale; SCL90 = Symptom Checklist 90.

**Figure 28. Meta-analysis of the effects of meditation programs on the mental health component of health-related quality of life with up to 3 months of followup**



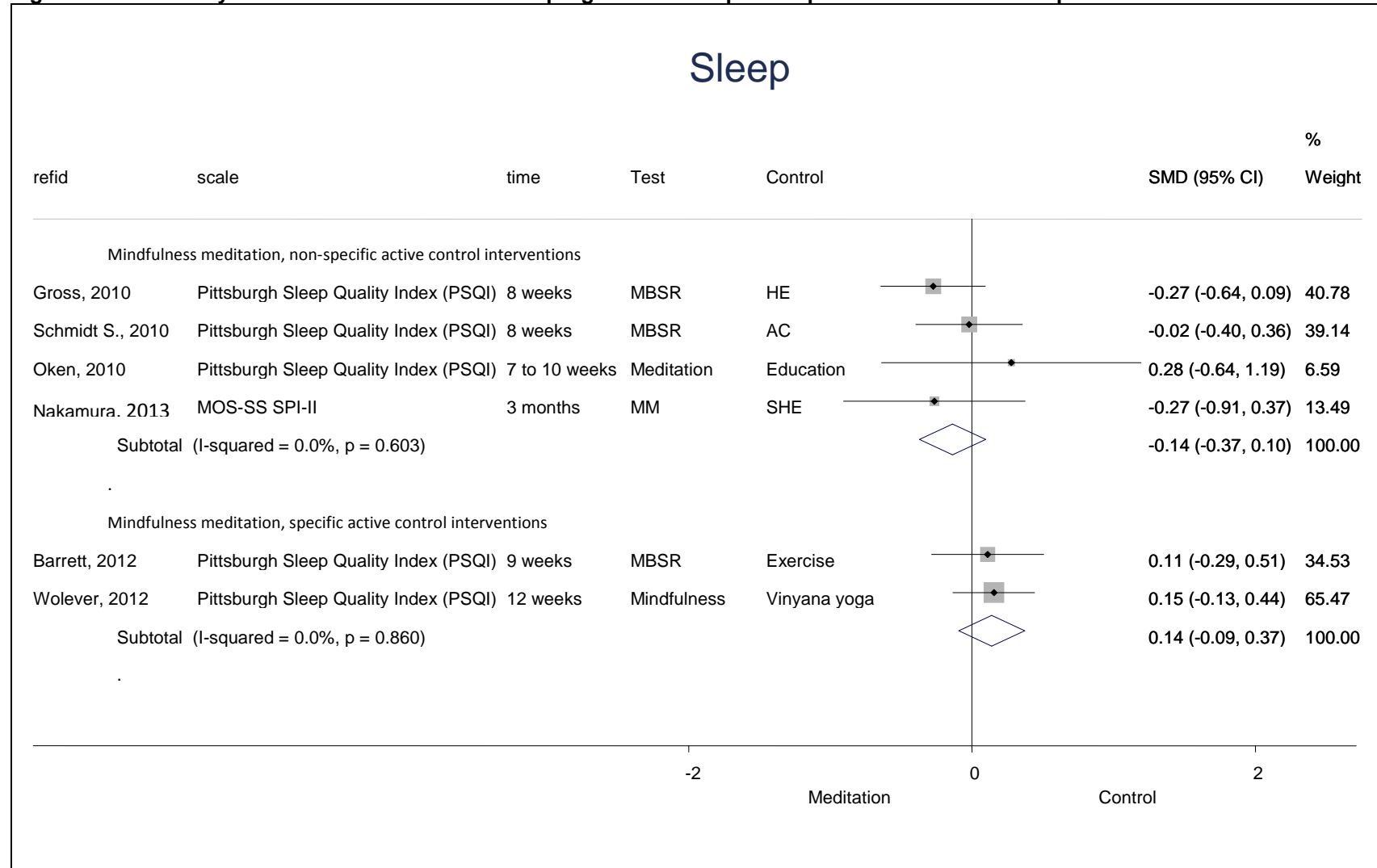
HE = Health Education; CI = confidence interval; HLC = Healthy Living Course; MBSR = Mindfulness Based Stress Reduction; MBCT = Mindfulness-based Cognitive Therapy; SF-12: MH = Short Form-12: Mental Component Score of Health-related Quality of Life; Mental Component Score of Health-related Quality of Life; mos = months; WHOQL = World Health Organization Quality of Life Assessment; SMD = standardized mean differences; wks = weeks.

**Figure 29. Relative difference between groups in the changes in measures of sleep, in the mindfulness versus nonspecific/specific active control studies**



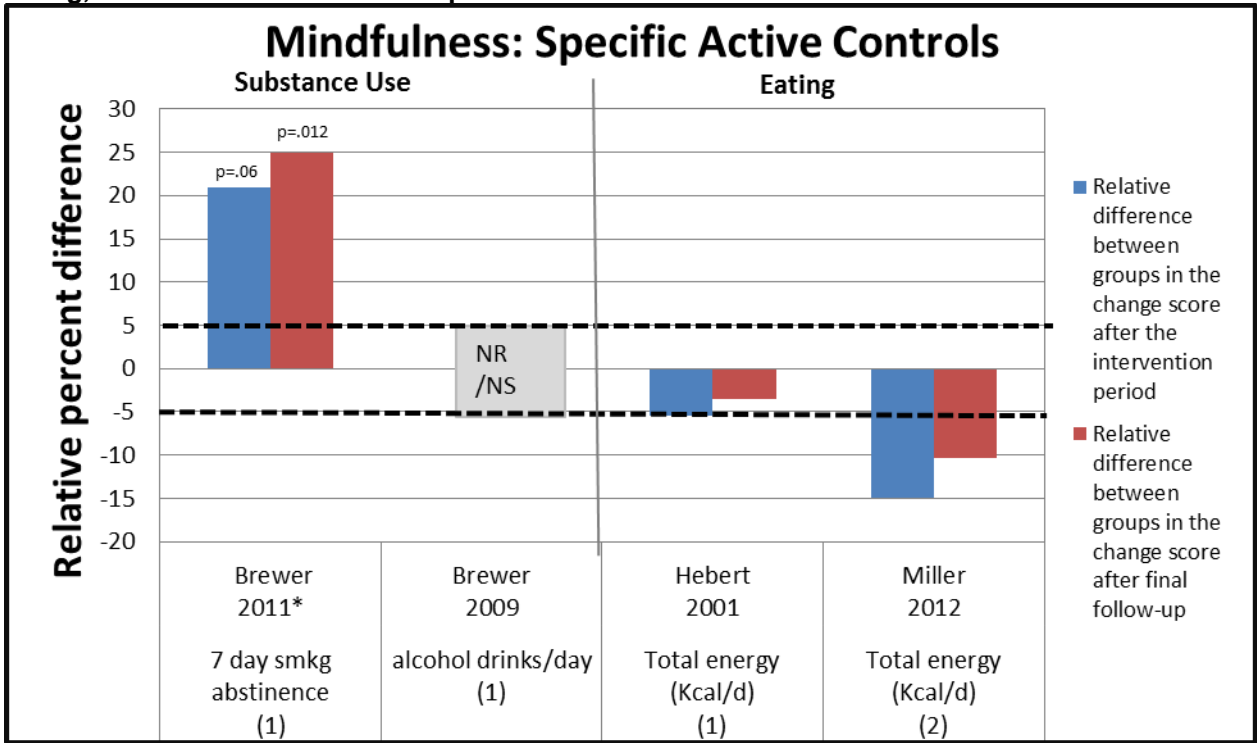
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- PSQI = Pittsburgh Sleep Quality Index.

**Figure 30. Meta-analysis of the effects of meditation programs on sleep with up to 3 months of followup**



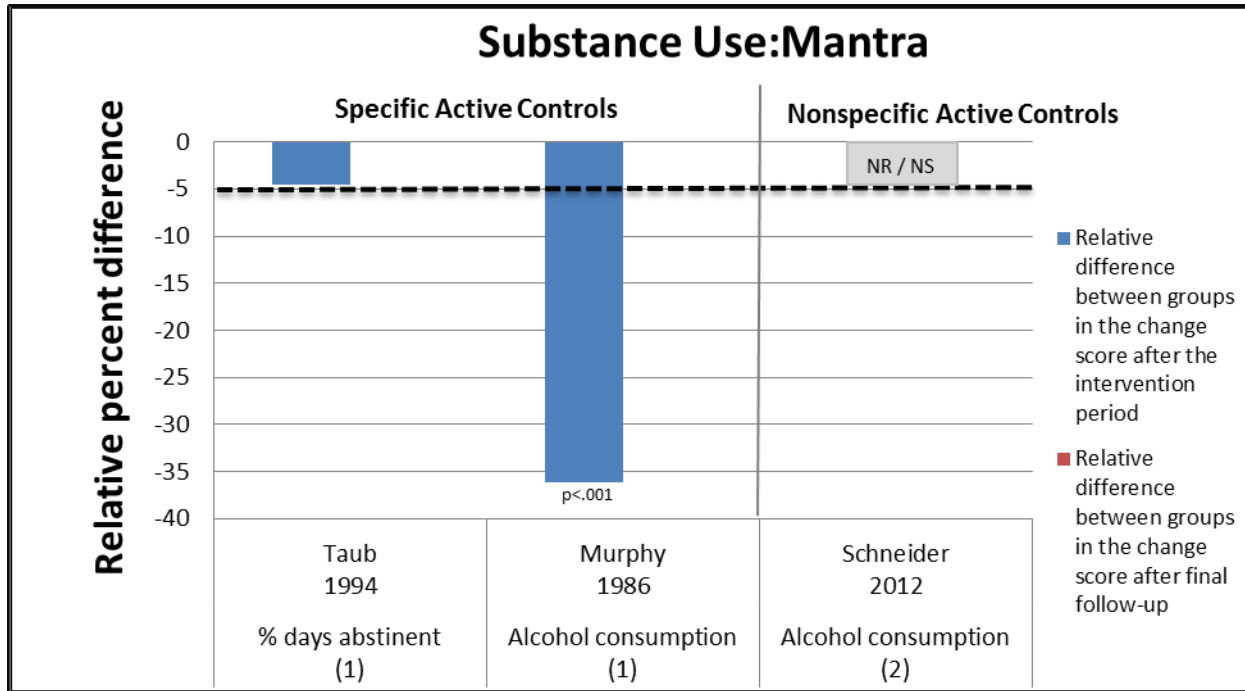
AC = Active Control; CI = confidence interval; HE = Health Education; MBSR = Mindfulness Based Stress Reduction; PSQI = Pittsburgh Sleep Quality Index; SMD = standardized mean differences

**Figure 31. Relative difference between groups in the changes in measures of substance use/ eating, in the mindfulness versus specific active control studies**



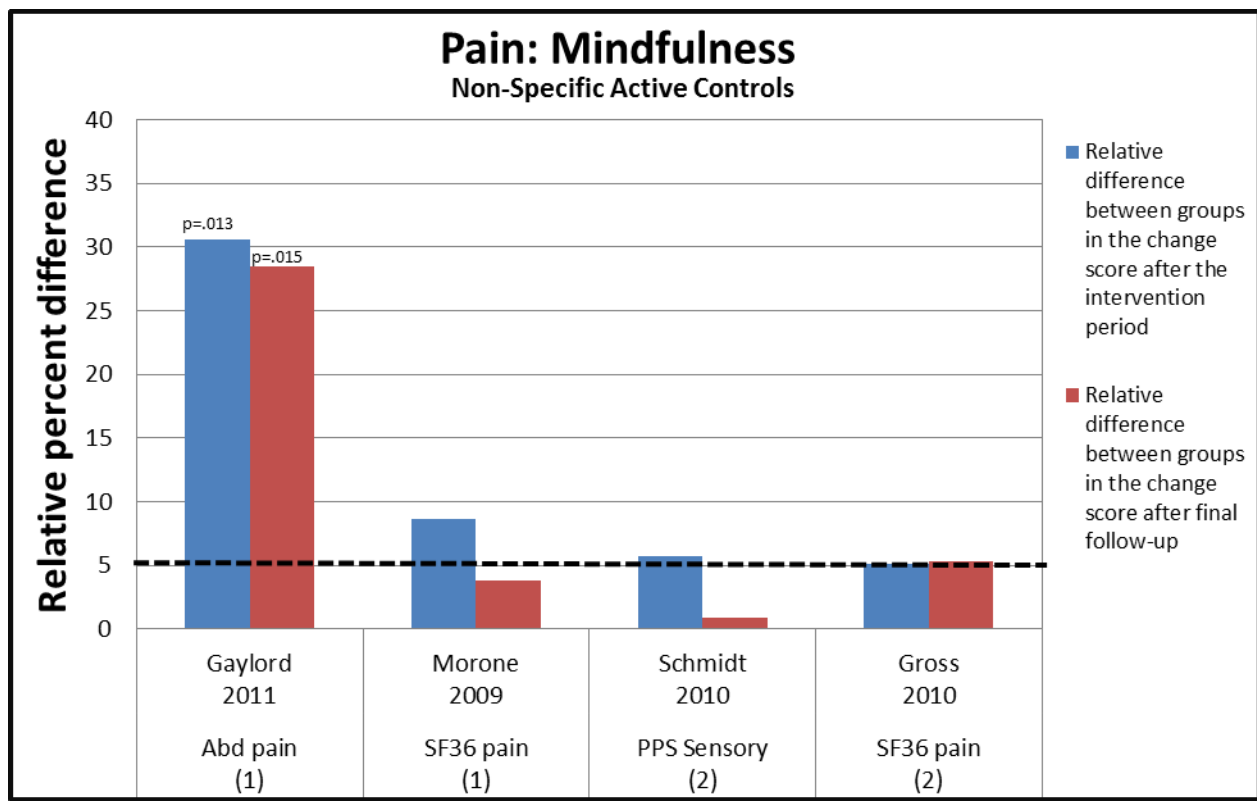
- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $((19-10)-(16-11))/10 \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- Kcal/d = Kilocalorie per day.

**Figure 32. Relative difference between groups in the changes in measures of substance use, in the mantra versus nonspecific/specific active control studies**



1. **Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group.
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5. A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.

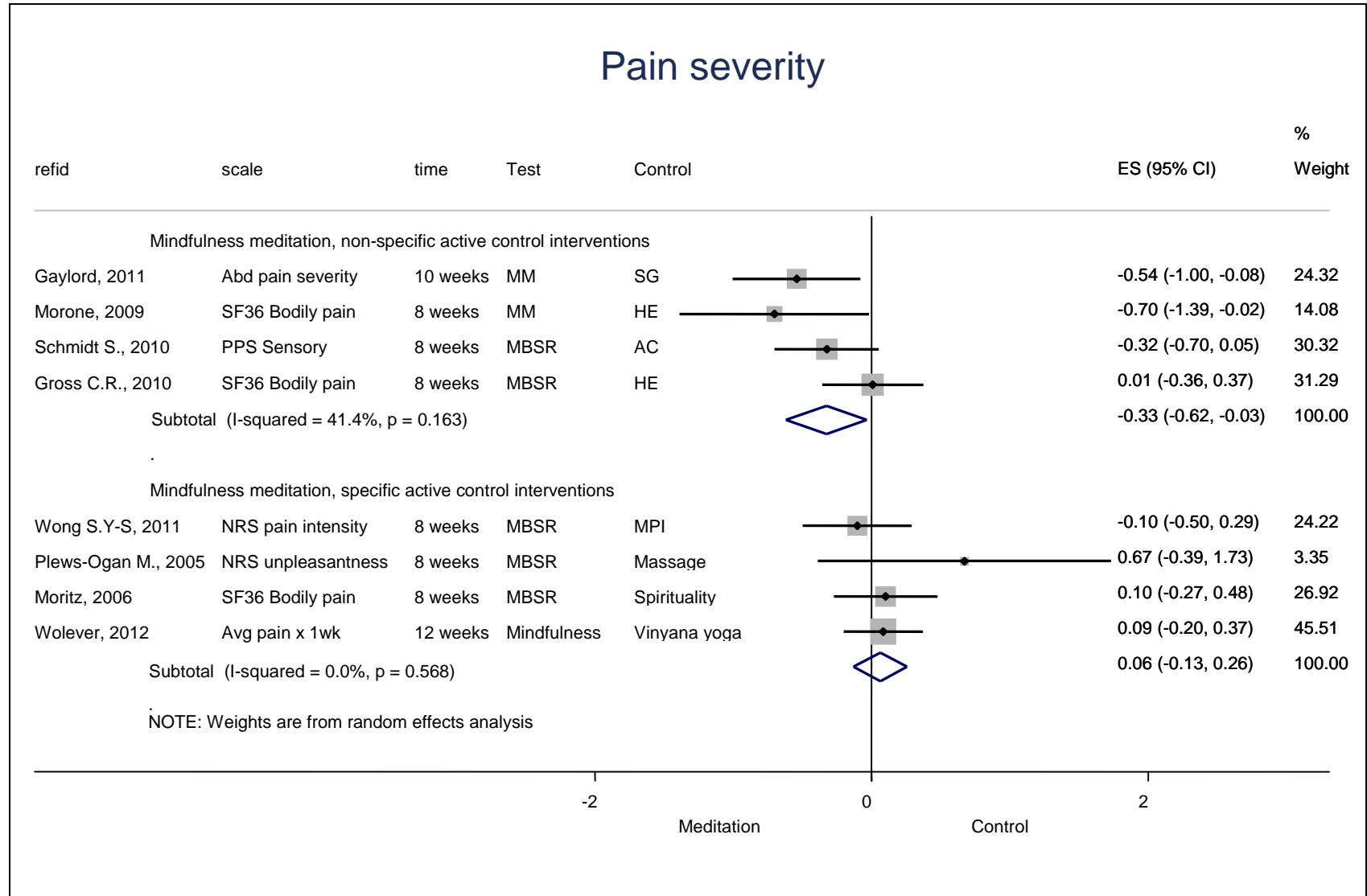
**Figure 33. Relative difference between groups in the changes in measures of pain, in the mindfulness versus nonspecific active control studies**



- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- Abd = Abdomen; PPS = Pain Perception (Sensory); SF-36 = Short Form-36.

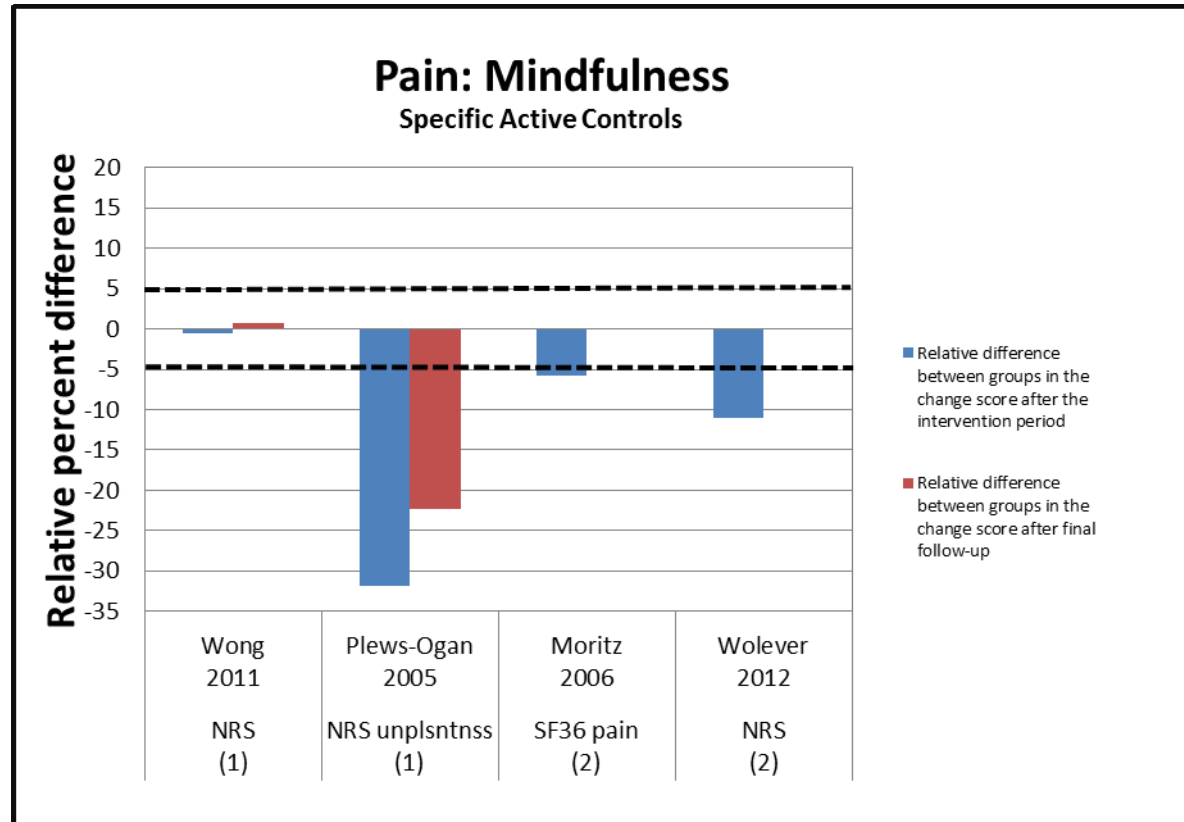


**Figure 34. Meta-analysis of the effects of meditation programs on pain severity with 8-12 weeks of followup**



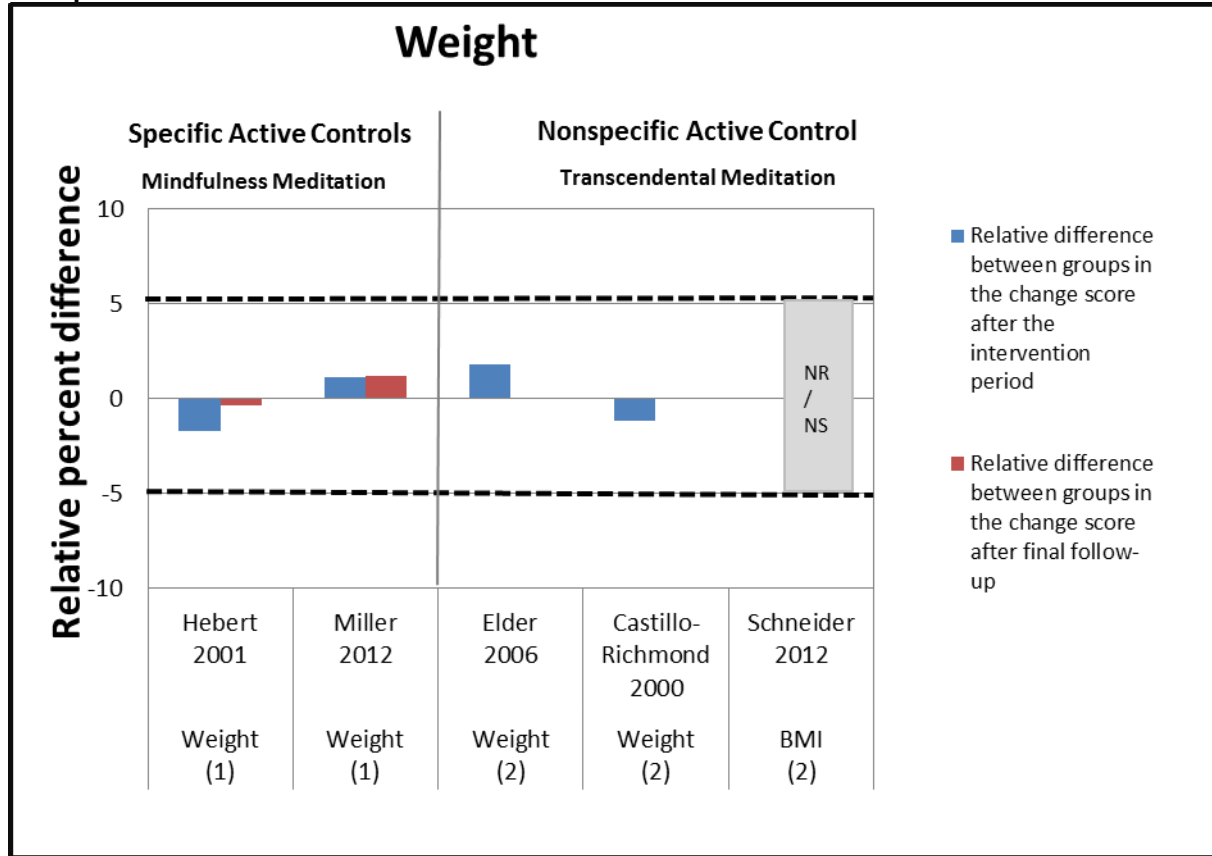
Abd = Abdomen; AC=Active Control; CI = confidence interval; HE = Health Education; NRS = Numeric Rating Scale; MBSR = Mindfulness Based Stress Reduction; MM = Mindfulness Meditation; MPI= Multidisciplinary Pain Intervention; PPS = Pain Perception (Sensory); SF-36 = Short Form-36; SG = Support Group; SMD = standardized mean differences wks = weeks

**Figure 35. Relative difference between groups in the changes in measures of pain, in the mindfulness versus specific active control studies**



- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group.
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- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- NRS = Numeric Rating Scale; SF-36 = Short Form-36; unplsntnss = unpleasantness.

**Figure 36. Relative difference between groups in the changes in measures of weight, in the mindfulness/transcendental meditation versus specific /nonspecific active control studies**



- Relative difference between groups in the change score.** This is a relative percent difference, using the baseline mean in the meditation group as the denominator. For example, if the meditation group improves from a 10 to 19 on a mental health scale and the control group improves from 11 to 16 on the same scale, the relative difference between groups in the change score is:  $\frac{((19-10)-(16-11))}{10} \times 100 = 40\%$ . The interpretation is that there is a 40% relative improvement on the mental health scale in the meditation group compared with the control group. See appendix E for absolute difference-in-change score values. Improvement in all scales is indicated in the positive direction. A positive relative percent difference means that the score improved more in the intervention group than in the control group
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- Black dotted lines from -5% to +5% indicate our criteria for no effect. It does not indicate statistical significance.
- A p value above or below a bar indicates statistical significance reported in the original study publication. If there is no p value, the outcome was not significant in the original publication.
- Units of weight: kilograms (Hebert, 2001; Miller, 2012; Schneider, 2012) and pounds (Elder, 2006; Castillo-Richmond, 2000)

