**The Efficacy of Seven Gratitude Interventions for Promoting Subjective Well-Being**

Annabel V. Dang1, Nicholas A. Coles2, Shigehiro Oishi3, Michael E. McCullough1

1Department of Psychology, University of California, San Diego

2Department of Psychology, University of Florida

3Department of Psychology, University of Chicago

**Supplementary Online Materials**

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# **Study 1 Pairwise Analysis**

**Table 1**

*Descriptive Scales for State Emotion Items and State Measures*

|  |  |  |  |
| --- | --- | --- | --- |
| State Emotion/Measures | M | SD | McDonalds’ ω |
| Optimism | 4.59 | 1.66 | 0.88 |
| Indebtedness | 3.06 | 1.54 | 0.52 |
| Guilt | 1.94 | 1.45 | NA |
| Social Connection | 3.93 | 0.96 | 0.92 |
| Attitude Towards Life | 5.86 | 1.82 | NA |
| Perceived Self-Size | 3.72 | 1.34 | 0.84 |

## Self-Reported Gratitude

**Table 2**

*Results comparing Self-Reported Gratitude between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -6.06 | 245.40 | 0.00 | -0.73 |
|  | 2) Gratitude Letter | -9.05 | 244.87 | 0.00 | -1.09 |
| 1) Measurement Only | 3) Gratitude Text | -7.22 | 247.58 | 0.00 | -0.88 |
|  | 4) Naikan Gratitude List | -5.84 | 255.57 | 0.00 | -0.70 |
|  | 5) Mental Subtraction Task | -6.55 | 253.88 | 0.00 | -0.79 |
|  | 1) Gratitude List | -3.60 | 234.88 | 0.00 | -0.45 |
|  | 2) Gratitude Letter | -6.74 | 233.99 | 0.00 | -0.85 |
| 2) Events List | 3) Gratitude Text | -4.90 | 235.86 | 0.00 | -0.62 |
|  | 4) Naikan Gratitude List | -3.46 | 244.36 | 0.00 | -0.43 |
|  | 5) Mental Subtraction Task | -4.19 | 242.71 | 0.00 | -0.52 |
|  | 1) Gratitude List | -4.14 | 245.59 | 0.00 | -0.51 |
|  | 2) Gratitude Letter | -7.43 | 243.06 | 0.00 | -0.93 |
| 3) Interesting Events List | 3) Gratitude Text | -5.47 | 241.00 | 0.00 | -0.69 |
|  | 4) Naikan Gratitude List | -3.96 | 251.65 | 0.00 | -0.49 |
|  | 5) Mental Subtraction Task | -4.73 | 250.22 | 0.00 | -0.59 |
|  | 1) Gratitude List | -8.44 | 230.66 | 0.00 | -1.05 |
|  | 2) Gratitude Letter | -11.45 | 230.42 | 0.00 | -1.43 |
| 2) Hassles List | 3) Gratitude Text | -9.53 | 233.85 | 0.00 | -1.20 |
|  | 4) Naikan Gratitude List | -8.13 | 241.37 | 0.00 | -1.01 |
|  | 5) Mental Subtraction Task | -8.86 | 239.65 | 0.00 | -1.11 |

**Table 3**

*Results comparing Self-Reported Gratitude between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -3.73 | 257.26 | 0.00 | -0.46 |
| 2) Gratitude List/Gratitude Text | -1.68 | 241.86 | 0.10 | -0.21 |
| 3) Gratitude List/Naikan Gratitude List | 0.00 | 258.25 | 1.00 | 0.00 |
| 4) Gratitude List/Mental Subtraction Task | -0.83 | 257.72 | 0.40 | -0.10 |
| 5) Gratitude Letter/Gratitude Text | 1.87 | 237.69 | 0.06 | 0.24 |
| 6) Gratitude Letter/Naikan Gratitude List | 3.52 | 252.87 | 0.00 | 0.44 |
| 7) Gratitude Letter/Mental Subtraction Task | 2.72 | 252.11 | 0.01 | 0.34 |
| 8) Gratitude Text/Naikan Gratitude List | 1.59 | 244.36 | 0.11 | 0.20 |
| 9) Gratitude Text/Mental Subtraction Task | 0.81 | 243.16 | 0.42 | 0.10 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.79 | 256.98 | 0.43 | -0.10 |

**Table 4**

*Results comparing Self-Reported Gratitude between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -2.32 | 262.94 | 0.02 | -0.28 |
| 2) Measurement Only/Interesting Events List | -2.11 | 261.40 | 0.04 | -0.26 |
| 3) Measurement Only/Hassles List | 1.98 | 263.83 | 0.05 | 0.24 |
| 4) Events List/Interesting Events List | 0.31 | 249.21 | 0.76 | 0.04 |
| 5) Events List/Hassles List | 4.39 | 250.58 | 0.00 | 0.55 |
| 6) Interesting Events List/Hassles List | 4.26 | 248.11 | 0.00 | 0.53 |

## Self-Reported Positive Affect

**Table 5**

*Results comparing Self-Reported Positive Affect between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -4.09 | 269.95 | 0.00 | -0.49 |
|  | 2) Gratitude Letter | -4.95 | 262.09 | 0.00 | -0.61 |
| 1) Measurement Only | 3) Gratitude Text | -4.47 | 249.41 | 0.00 | -0.56 |
|  | 4) Naikan Gratitude List | -3.46 | 264.73 | 0.00 | -0.42 |
|  | 5) Mental Subtraction Task | -3.83 | 262.76 | 0.00 | -0.47 |
|  | 1) Gratitude List | -2.36 | 247.40 | 0.02 | -0.29 |
|  | 2) Gratitude Letter | -3.26 | 248.11 | 0.00 | -0.41 |
| 2) Events List | 3) Gratitude Text | -2.84 | 240.97 | 0.00 | -0.36 |
|  | 4) Naikan Gratitude List | -1.88 | 253.27 | 0.06 | -0.23 |
|  | 5) Mental Subtraction Task | -2.25 | 252.69 | 0.03 | -0.28 |
|  | 1) Gratitude List | -1.75 | 255.90 | 0.08 | -0.22 |
|  | 2) Gratitude Letter | -2.71 | 250.97 | 0.01 | -0.34 |
| 3) Interesting Events List | 3) Gratitude Text | -2.28 | 240.16 | 0.02 | -0.29 |
|  | 4) Naikan Gratitude List | -1.28 | 254.49 | 0.20 | -0.16 |
|  | 5) Mental Subtraction Task | -1.67 | 252.99 | 0.10 | -0.21 |
|  | 1) Gratitude List | -7.50 | 250.88 | 0.00 | -0.93 |
|  | 2) Gratitude Letter | -8.20 | 250.11 | 0.00 | -1.03 |
| 2) Hassles List | 3) Gratitude Text | -7.69 | 241.93 | 0.00 | -0.98 |
|  | 4) Naikan Gratitude List | -6.70 | 254.83 | 0.00 | -0.83 |
|  | 5) Mental Subtraction Task | -7.03 | 253.99 | 0.00 | -0.88 |

**Table 6**

*Results comparing Self-Reported Positive Affect between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -1.07 | 254.27 | 0.28 | -0.13 |
| 2) Gratitude List/Gratitude Text | -0.66 | 239.66 | 0.51 | -0.08 |
| 3) Gratitude List/Naikan Gratitude List | 0.37 | 255.92 | 0.71 | 0.05 |
| 4) Gratitude List/Mental Subtraction Task | -0.05 | 253.48 | 0.96 | -0.01 |
| 5) Gratitude Letter/Gratitude Text | 0.37 | 239.59 | 0.71 | 0.05 |
| 6) Gratitude Letter/Naikan Gratitude List | 1.36 | 253.71 | 0.18 | 0.17 |
| 7) Gratitude Letter/Mental Subtraction Task | 0.95 | 252.31 | 0.34 | 0.12 |
| 8) Gratitude Text/Naikan Gratitude List | 0.96 | 244.55 | 0.34 | 0.12 |
| 9) Gratitude Text/Mental Subtraction Task | 0.57 | 243.86 | 0.57 | 0.07 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.39 | 256.91 | 0.70 | -0.05 |

**Table 7**

*Results comparing Self-Reported Positive Affect between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -1.45 | 257.50 | 0.15 | -0.18 |
| 2) Measurement Only/Interesting Events List | -2.24 | 263.40 | 0.03 | -0.27 |
| 3) Measurement Only/Hassles List | 3.45 | 260.34 | 0.00 | 0.42 |
| 4) Events List/Interesting Events List | -0.68 | 248.60 | 0.50 | -0.08 |
| 5) Events List/Hassles List | 4.70 | 250.81 | 0.00 | 0.59 |
| 6) Interesting Events List/Hassles List | 5.61 | 250.75 | 0.00 | 0.70 |

## Self-Reported Optimism

**Table 8**

*Results comparing Self-Reported Optimism between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -4.76 | 261.46 | 0.00 | -0.57 |
|  | 2) Gratitude Letter | -3.94 | 262.74 | 0.00 | -0.48 |
| 1) Measurement Only | 3) Gratitude Text | -3.74 | 253.83 | 0.00 | -0.46 |
|  | 4) Naikan Gratitude List | -2.72 | 266.60 | 0.01 | -0.33 |
|  | 5) Mental Subtraction Task | -3.66 | 265.95 | 0.00 | -0.45 |
|  | 1) Gratitude List | -2.50 | 244.00 | 0.01 | -0.31 |
|  | 2) Gratitude Letter | -1.81 | 248.42 | 0.07 | -0.23 |
| 2) Events List | 3) Gratitude Text | -1.62 | 240.88 | 0.11 | -0.21 |
|  | 4) Naikan Gratitude List | -0.60 | 252.09 | 0.55 | -0.07 |
|  | 5) Mental Subtraction Task | -1.58 | 252.69 | 0.11 | -0.20 |
|  | 1) Gratitude List | -2.72 | 244.61 | 0.01 | -0.34 |
|  | 2) Gratitude Letter | -2.02 | 249.28 | 0.04 | -0.25 |
| 3) Interesting Events List | 3) Gratitude Text | -1.83 | 241.84 | 0.07 | -0.23 |
|  | 4) Naikan Gratitude List | -0.81 | 252.94 | 0.42 | -0.10 |
|  | 5) Mental Subtraction Task | -1.79 | 253.62 | 0.07 | -0.22 |
|  | 1) Gratitude List | -7.25 | 242.13 | 0.00 | -0.90 |
|  | 2) Gratitude Letter | -6.32 | 248.25 | 0.00 | -0.79 |
| 2) Hassles List | 3) Gratitude Text | -6.09 | 241.44 | 0.00 | -0.77 |
|  | 4) Naikan Gratitude List | -5.11 | 251.81 | 0.00 | -0.64 |
|  | 5) Mental Subtraction Task | -5.98 | 253.06 | 0.00 | -0.75 |

**Table 9**

*Results comparing Self-Reported Optimism between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.62 | 251.40 | 0.54 | 0.08 |
| 2) Gratitude List/Gratitude Text | 0.80 | 237.58 | 0.42 | 0.10 |
| 3) Gratitude List/Naikan Gratitude List | 1.95 | 255.89 | 0.05 | 0.24 |
| 4) Gratitude List/Mental Subtraction Task | 0.80 | 250.46 | 0.43 | 0.10 |
| 5) Gratitude Letter/Gratitude Text | 0.18 | 240.21 | 0.86 | 0.02 |
| 6) Gratitude Letter/Naikan Gratitude List | 1.26 | 253.99 | 0.21 | 0.16 |
| 7) Gratitude Letter/Mental Subtraction Task | 0.19 | 252.50 | 0.85 | 0.02 |
| 8) Gratitude Text/Naikan Gratitude List | 1.07 | 243.98 | 0.29 | 0.14 |
| 9) Gratitude Text/Mental Subtraction Task | 0.01 | 243.96 | 0.99 | 0.00 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -1.03 | 256.31 | 0.30 | -0.13 |

**Table 10**

*Results comparing Self-Reported Optimism between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -2.05 | 262.38 | 0.04 | -0.25 |
| 2) Measurement Only/Interesting Events List | -1.84 | 263.29 | 0.07 | -0.22 |
| 3) Measurement Only/Hassles List | 2.34 | 262.55 | 0.02 | 0.29 |
| 4) Events List/Interesting Events List | 0.21 | 251.00 | 0.84 | 0.03 |
| 5) Events List/Hassles List | 4.37 | 250.83 | 0.00 | 0.55 |
| 6) Interesting Events List/Hassles List | 4.15 | 251.87 | 0.00 | 0.52 |

## Self-Reported Negative Affect

**Table 11**

*Results comparing Self-Reported Negative Affect between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 2.48 | 263.80 | 0.01 | 0.30 |
|  | 2) Gratitude Letter | 2.09 | 262.99 | 0.04 | 0.26 |
| 1) Measurement Only | 3) Gratitude Text | 2.81 | 252.90 | 0.01 | 0.34 |
|  | 4) Naikan Gratitude List | 1.43 | 266.85 | 0.15 | 0.17 |
|  | 5) Mental Subtraction Task | 0.89 | 265.01 | 0.37 | 0.11 |
|  | 1) Gratitude List | 3.08 | 242.34 | 0.00 | 0.38 |
|  | 2) Gratitude Letter | 2.67 | 248.25 | 0.01 | 0.34 |
| 2) Events List | 3) Gratitude Text | 3.39 | 235.34 | 0.00 | 0.43 |
|  | 4) Naikan Gratitude List | 2.03 | 250.72 | 0.04 | 0.25 |
|  | 5) Mental Subtraction Task | 1.47 | 252.78 | 0.14 | 0.18 |
|  | 1) Gratitude List | 3.15 | 242.31 | 0.00 | 0.39 |
|  | 2) Gratitude Letter | 2.74 | 248.85 | 0.01 | 0.34 |
| 3) Interesting Events List | 3) Gratitude Text | 3.46 | 235.70 | 0.00 | 0.44 |
|  | 4) Naikan Gratitude List | 2.10 | 251.19 | 0.04 | 0.26 |
|  | 5) Mental Subtraction Task | 1.55 | 253.63 | 0.12 | 0.19 |
|  | 1) Gratitude List | 4.00 | 228.70 | 0.00 | 0.50 |
|  | 2) Gratitude Letter | 3.59 | 241.26 | 0.00 | 0.45 |
| 2) Hassles List | 3) Gratitude Text | 4.28 | 225.91 | 0.00 | 0.54 |
|  | 4) Naikan Gratitude List | 2.99 | 242.11 | 0.00 | 0.37 |
|  | 5) Mental Subtraction Task | 2.45 | 248.54 | 0.02 | 0.31 |

**Table 12**

*Results comparing Self-Reported Negative Affect between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -0.25 | 250.52 | 0.80 | -0.03 |
| 2) Gratitude List/Gratitude Text | 0.40 | 246.50 | 0.69 | 0.05 |
| 3) Gratitude List/Naikan Gratitude List | -1.00 | 256.78 | 0.32 | -0.12 |
| 4) Gratitude List/Mental Subtraction Task | -1.48 | 248.37 | 0.14 | -0.18 |
| 5) Gratitude Letter/Gratitude Text | 0.62 | 239.73 | 0.54 | 0.08 |
| 6) Gratitude Letter/Naikan Gratitude List | -0.69 | 253.77 | 0.49 | -0.09 |
| 7) Gratitude Letter/Mental Subtraction Task | -1.16 | 252.25 | 0.25 | -0.14 |
| 8) Gratitude Text/Naikan Gratitude List | -1.36 | 244.56 | 0.18 | -0.17 |
| 9) Gratitude Text/Mental Subtraction Task | -1.82 | 240.17 | 0.07 | -0.23 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.50 | 255.16 | 0.62 | -0.06 |

**Table 13**

*Results comparing Self-Reported Negative Affect between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -0.61 | 260.85 | 0.54 | -0.07 |
| 2) Measurement Only/Interesting Events List | -0.69 | 261.40 | 0.49 | -0.08 |
| 3) Measurement Only/Hassles List | -1.65 | 252.95 | 0.10 | -0.20 |
| 4) Events List/Interesting Events List | -0.09 | 250.98 | 0.93 | -0.01 |
| 5) Events List/Hassles List | -1.06 | 247.49 | 0.29 | -0.13 |
| 6) Interesting Events List/Hassles List | -0.97 | 248.97 | 0.33 | -0.12 |

## Self-Reported Indebtedness

**Table 14**

*Results comparing Self-Reported Indebtedness between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 0.33 | 269.48 | 0.74 | 0.04 |
|  | 2) Gratitude Letter | -4.85 | 252.68 | 0.00 | -0.60 |
| 1) Measurement Only | 3) Gratitude Text | -1.92 | 250.39 | 0.06 | -0.24 |
|  | 4) Naikan Gratitude List | -1.75 | 261.77 | 0.08 | -0.21 |
|  | 5) Mental Subtraction Task | -0.99 | 262.77 | 0.32 | -0.12 |
|  | 1) Gratitude List | 1.50 | 256.54 | 0.14 | 0.19 |
|  | 2) Gratitude Letter | -3.50 | 249.31 | 0.00 | -0.44 |
| 2) Events List | 3) Gratitude Text | -0.63 | 240.78 | 0.53 | -0.08 |
|  | 4) Naikan Gratitude List | -0.51 | 253.98 | 0.61 | -0.06 |
|  | 5) Mental Subtraction Task | 0.23 | 252.60 | 0.82 | 0.03 |
|  | 1) Gratitude List | 0.87 | 254.35 | 0.38 | 0.11 |
|  | 2) Gratitude Letter | -3.94 | 250.99 | 0.00 | -0.49 |
| 3) Interesting Events List | 3) Gratitude Text | -1.18 | 240.05 | 0.24 | -0.15 |
|  | 4) Naikan Gratitude List | -1.06 | 253.79 | 0.29 | -0.13 |
|  | 5) Mental Subtraction Task | -0.34 | 251.50 | 0.73 | -0.04 |
|  | 1) Gratitude List | 0.63 | 254.04 | 0.53 | 0.08 |
|  | 2) Gratitude Letter | -4.17 | 250.96 | 0.00 | -0.52 |
| 2) Hassles List | 3) Gratitude Text | -1.43 | 239.85 | 0.16 | -0.18 |
|  | 4) Naikan Gratitude List | -1.29 | 253.63 | 0.20 | -0.16 |
|  | 5) Mental Subtraction Task | -0.58 | 251.27 | 0.56 | -0.07 |

**Table 15**

*Results comparing Self-Reported Indebtedness between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -5.03 | 253.86 | 0.00 | -0.62 |
| 2) Gratitude List/Gratitude Text | -2.19 | 248.50 | 0.03 | -0.27 |
| 3) Gratitude List/Naikan Gratitude List | -2.02 | 260.85 | 0.04 | -0.25 |
| 4) Gratitude List/Mental Subtraction Task | -1.28 | 260.67 | 0.20 | -0.16 |
| 5) Gratitude Letter/Gratitude Text | 3.01 | 239.36 | 0.00 | 0.38 |
| 6) Gratitude Letter/Naikan Gratitude List | 2.99 | 253.05 | 0.00 | 0.37 |
| 7) Gratitude Letter/Mental Subtraction Task | 3.78 | 250.88 | 0.00 | 0.47 |
| 8) Gratitude Text/Naikan Gratitude List | 0.09 | 244.88 | 0.93 | 0.01 |
| 9) Gratitude Text/Mental Subtraction Task | 0.88 | 243.98 | 0.38 | 0.11 |
| 10) Naikan Gratitude List/Mental Subtraction Task | 0.75 | 256.76 | 0.45 | 0.09 |

**Table 16**

*Results comparing Self-Reported Indebtedness between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -1.22 | 257.19 | 0.23 | -0.15 |
| 2) Measurement Only/Interesting Events List | -0.59 | 252.90 | 0.56 | -0.07 |
| 3) Measurement Only/Hassles List | -0.33 | 252.45 | 0.74 | -0.04 |
| 4) Events List/Interesting Events List | 0.56 | 250.09 | 0.58 | 0.07 |
| 5) Events List/Hassles List | 0.80 | 249.95 | 0.43 | 0.10 |
| 6) Interesting Events List/Hassles List | 0.23 | 251.99 | 0.82 | 0.03 |

## Self-Reported Guilt

**Table 17**

*Results comparing Self-Reported Guilt between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 1.21 | 267.42 | 0.23 | 0.15 |
|  | 2) Gratitude Letter | -0.14 | 257.10 | 0.88 | -0.02 |
| 1) Measurement Only | 3) Gratitude Text | 0.89 | 253.86 | 0.38 | 0.11 |
|  | 4) Naikan Gratitude List | -0.23 | 260.16 | 0.82 | -0.03 |
|  | 5) Mental Subtraction Task | 0.60 | 265.77 | 0.55 | 0.07 |
|  | 1) Gratitude List | 1.70 | 236.90 | 0.09 | 0.21 |
|  | 2) Gratitude Letter | 0.39 | 249.66 | 0.69 | 0.05 |
| 2) Events List | 3) Gratitude Text | 1.39 | 234.79 | 0.17 | 0.18 |
|  | 4) Naikan Gratitude List | 0.31 | 253.83 | 0.76 | 0.04 |
|  | 5) Mental Subtraction Task | 1.13 | 241.83 | 0.26 | 0.14 |
|  | 1) Gratitude List | 1.61 | 248.41 | 0.11 | 0.20 |
|  | 2) Gratitude Letter | 0.25 | 250.11 | 0.81 | 0.03 |
| 3) Interesting Events List | 3) Gratitude Text | 1.28 | 240.88 | 0.20 | 0.16 |
|  | 4) Naikan Gratitude List | 0.16 | 253.73 | 0.87 | 0.02 |
|  | 5) Mental Subtraction Task | 1.01 | 250.35 | 0.31 | 0.13 |
|  | 1) Gratitude List | 1.47 | 256.02 | 0.14 | 0.18 |
|  | 2) Gratitude Letter | 0.04 | 244.82 | 0.97 | 0.01 |
| 2) Hassles List | 3) Gratitude Text | 1.12 | 241.76 | 0.26 | 0.14 |
|  | 4) Naikan Gratitude List | -0.04 | 247.91 | 0.97 | -0.01 |
|  | 5) Mental Subtraction Task | 0.83 | 253.89 | 0.41 | 0.10 |

**Table 18**

*Results comparing Self-Reported Guilt between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -1.29 | 241.20 | 0.20 | -0.16 |
| 2) Gratitude List/Gratitude Text | -0.31 | 244.23 | 0.76 | -0.04 |
| 3) Gratitude List/Naikan Gratitude List | -1.36 | 243.79 | 0.18 | -0.17 |
| 4) Gratitude List/Mental Subtraction Task | -0.61 | 259.04 | 0.54 | -0.08 |
| 5) Gratitude Letter/Gratitude Text | 0.99 | 237.17 | 0.33 | 0.13 |
| 6) Gratitude Letter/Naikan Gratitude List | -0.08 | 253.97 | 0.94 | -0.01 |
| 7) Gratitude Letter/Mental Subtraction Task | 0.72 | 245.11 | 0.47 | 0.09 |
| 8) Gratitude Text/Naikan Gratitude List | -1.06 | 240.46 | 0.29 | -0.13 |
| 9) Gratitude Text/Mental Subtraction Task | -0.29 | 243.33 | 0.77 | -0.04 |
| 10) Naikan Gratitude List/Mental Subtraction Task | 0.79 | 248.08 | 0.43 | 0.10 |

**Table 19**

*Results comparing Self-Reported Guilt between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -0.55 | 254.04 | 0.58 | -0.07 |
| 2) Measurement Only/Interesting Events List | -0.41 | 261.79 | 0.68 | -0.05 |
| 3) Measurement Only/Hassles List | -0.20 | 263.98 | 0.84 | -0.02 |
| 4) Events List/Interesting Events List | 0.16 | 248.69 | 0.87 | 0.02 |
| 5) Events List/Hassles List | 0.38 | 241.85 | 0.70 | 0.05 |
| 6) Interesting Events List/Hassles List | 0.22 | 249.51 | 0.83 | 0.03 |

## Satisfaction with Life

**Table 20**

*Results comparing Self-Reported Satisfaction with Life between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -0.30 | 270.80 | 0.77 | -0.04 |
|  | 2) Gratitude Letter | -0.69 | 260.46 | 0.49 | -0.08 |
| 1) Measurement Only | 3) Gratitude Text | -0.18 | 246.84 | 0.86 | -0.02 |
|  | 4) Naikan Gratitude List | 0.20 | 263.92 | 0.84 | 0.02 |
|  | 5) Mental Subtraction Task | -1.61 | 263.35 | 0.11 | -0.20 |
|  | 1) Gratitude List | -0.85 | 257.79 | 0.39 | -0.11 |
|  | 2) Gratitude Letter | -1.24 | 247.55 | 0.22 | -0.16 |
| 2) Events List | 3) Gratitude Text | -0.71 | 234.20 | 0.48 | -0.09 |
|  | 4) Naikan Gratitude List | -0.32 | 251.04 | 0.75 | -0.04 |
|  | 5) Mental Subtraction Task | -2.18 | 250.45 | 0.03 | -0.27 |
|  | 1) Gratitude List | -1.82 | 257.02 | 0.07 | -0.22 |
|  | 2) Gratitude Letter | -2.17 | 250.93 | 0.03 | -0.27 |
| 3) Interesting Events List | 3) Gratitude Text | -1.65 | 241.27 | 0.10 | -0.21 |
|  | 4) Naikan Gratitude List | -1.29 | 254.99 | 0.20 | -0.16 |
|  | 5) Mental Subtraction Task | -3.05 | 253.95 | 0.00 | -0.38 |
|  | 1) Gratitude List | -2.31 | 256.52 | 0.02 | -0.29 |
|  | 2) Gratitude Letter | -2.65 | 250.82 | 0.01 | -0.33 |
| 2) Hassles List | 3) Gratitude Text | -2.13 | 241.53 | 0.03 | -0.27 |
|  | 4) Naikan Gratitude List | -1.77 | 254.92 | 0.08 | -0.22 |
|  | 5) Mental Subtraction Task | -3.52 | 253.84 | 0.00 | -0.44 |

**Table 21**

*Results comparing Self-Reported Satisfaction of Life between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -0.39 | 256.69 | 0.69 | -0.05 |
| 2) Gratitude List/Gratitude Text | 0.10 | 244.02 | 0.92 | 0.01 |
| 3) Gratitude List/Naikan Gratitude List | 0.49 | 260.30 | 0.63 | 0.06 |
| 4) Gratitude List/Mental Subtraction Task | -1.32 | 259.61 | 0.19 | -0.16 |
| 5) Gratitude Letter/Gratitude Text | 0.48 | 239.78 | 0.63 | 0.06 |
| 6) Gratitude Letter/Naikan Gratitude List | 0.86 | 253.98 | 0.39 | 0.11 |
| 7) Gratitude Letter/Mental Subtraction Task | -0.91 | 253.00 | 0.36 | -0.11 |
| 8) Gratitude Text/Naikan Gratitude List | 0.37 | 244.06 | 0.71 | 0.05 |
| 9) Gratitude Text/Mental Subtraction Task | -1.37 | 242.82 | 0.17 | -0.17 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -1.75 | 256.98 | 0.08 | -0.22 |

**Table 22**

*Results comparing Self-Reported Satisfaction of Life between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | 0.55 | 263.00 | 0.58 | 0.07 |
| 2) Measurement Only/Interesting Events List | 1.54 | 260.55 | 0.12 | 0.19 |
| 3) Measurement Only/Hassles List | 2.04 | 259.89 | 0.04 | 0.25 |
| 4) Events List/Interesting Events List | 1.04 | 247.69 | 0.30 | 0.13 |
| 5) Events List/Hassles List | 1.55 | 247.07 | 0.12 | 0.19 |
| 6) Interesting Events List/Hassles List | 0.49 | 251.97 | 0.63 | 0.06 |

## Social Connection

**Table 23**

*Results comparing Self-Reported Social Connection between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -1.72 | 269.71 | 0.09 | -0.21 |
|  | 2) Gratitude Letter | -2.37 | 263.00 | 0.02 | -0.29 |
| 1) Measurement Only | 3) Gratitude Text | -1.51 | 253.98 | 0.13 | -0.19 |
|  | 4) Naikan Gratitude List | -1.17 | 263.44 | 0.24 | -0.14 |
|  | 5) Mental Subtraction Task | -2.21 | 265.99 | 0.03 | -0.27 |
|  | 1) Gratitude List | -1.19 | 251.44 | 0.24 | -0.15 |
|  | 2) Gratitude Letter | -1.83 | 247.91 | 0.07 | -0.23 |
| 2) Events List | 3) Gratitude Text | -0.98 | 239.37 | 0.33 | -0.13 |
|  | 4) Naikan Gratitude List | -0.69 | 253.86 | 0.49 | -0.09 |
|  | 5) Mental Subtraction Task | -1.68 | 251.06 | 0.09 | -0.21 |
|  | 1) Gratitude List | -2.33 | 254.11 | 0.02 | -0.29 |
|  | 2) Gratitude Letter | -2.96 | 249.82 | 0.00 | -0.37 |
| 3) Interesting Events List | 3) Gratitude Text | -2.13 | 241.14 | 0.03 | -0.27 |
|  | 4) Naikan Gratitude List | -1.74 | 254.45 | 0.08 | -0.22 |
|  | 5) Mental Subtraction Task | -2.81 | 252.93 | 0.01 | -0.35 |
|  | 1) Gratitude List | -3.50 | 230.70 | 0.00 | -0.44 |
|  | 2) Gratitude Letter | -4.04 | 232.32 | 0.00 | -0.51 |
| 2) Hassles List | 3) Gratitude Text | -3.32 | 225.30 | 0.00 | -0.42 |
|  | 4) Naikan Gratitude List | -2.92 | 247.44 | 0.00 | -0.36 |
|  | 5) Mental Subtraction Task | -3.90 | 235.42 | 0.00 | -0.49 |

**Table 24**

*Results comparing Self-Reported Social Connection between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -0.71 | 256.73 | 0.48 | -0.09 |
| 2) Gratitude List/Gratitude Text | 0.21 | 247.44 | 0.83 | 0.03 |
| 3) Gratitude List/Naikan Gratitude List | 0.43 | 253.40 | 0.67 | 0.05 |
| 4) Gratitude List/Mental Subtraction Task | -0.56 | 259.58 | 0.58 | -0.07 |
| 5) Gratitude Letter/Gratitude Text | 0.91 | 240.98 | 0.36 | 0.12 |
| 6) Gratitude Letter/Naikan Gratitude List | 1.07 | 250.69 | 0.29 | 0.13 |
| 7) Gratitude Letter/Mental Subtraction Task | 0.14 | 253.00 | 0.89 | 0.02 |
| 8) Gratitude Text/Naikan Gratitude List | 0.24 | 242.30 | 0.81 | 0.03 |
| 9) Gratitude Text/Mental Subtraction Task | -0.76 | 243.99 | 0.45 | -0.10 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.71 | 256.73 | 0.48 | -0.09 |

**Table 25**

*Results comparing Self-Reported Social Connection between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -0.47 | 260.75 | 0.64 | -0.06 |
| 2) Measurement Only/Interesting Events List | 0.61 | 262.72 | 0.54 | 0.07 |
| 3) Measurement Only/Hassles List | 1.96 | 243.77 | 0.05 | 0.24 |
| 4) Events List/Interesting Events List | 1.07 | 250.87 | 0.29 | 0.13 |
| 5) Events List/Hassles List | 2.34 | 241.61 | 0.02 | 0.29 |
| 6) Interesting Events List/Hassles List | 1.41 | 240.44 | 0.16 | 0.18 |

## Attitude towards Life

**Table 26**

*Results comparing Self-Reported Attitude towards Life between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -0.68 | 269.06 | 0.50 | -0.08 |
|  | 2) Gratitude Letter | -0.15 | 262.47 | 0.88 | -0.02 |
| 1) Measurement Only | 3) Gratitude Text | -1.16 | 250.00 | 0.25 | -0.14 |
|  | 4) Naikan Gratitude List | 0.17 | 266.49 | 0.86 | 0.02 |
|  | 5) Mental Subtraction Task | -0.69 | 265.57 | 0.49 | -0.08 |
|  | 1) Gratitude List | -0.49 | 257.00 | 0.63 | -0.06 |
|  | 2) Gratitude Letter | 0.08 | 249.97 | 0.94 | 0.01 |
| 2) Events List | 3) Gratitude Text | -0.99 | 233.33 | 0.32 | -0.13 |
|  | 4) Naikan Gratitude List | 0.40 | 251.52 | 0.69 | 0.05 |
|  | 5) Mental Subtraction Task | -0.50 | 250.71 | 0.62 | -0.06 |
|  | 1) Gratitude List | -1.39 | 257.72 | 0.17 | -0.17 |
|  | 2) Gratitude Letter | -0.85 | 250.91 | 0.40 | -0.11 |
| 3) Interesting Events List | 3) Gratitude Text | -1.84 | 236.53 | 0.07 | -0.24 |
|  | 4) Naikan Gratitude List | -0.47 | 253.76 | 0.64 | -0.06 |
|  | 5) Mental Subtraction Task | -1.37 | 252.90 | 0.17 | -0.17 |
|  | 1) Gratitude List | -2.68 | 250.05 | 0.01 | -0.33 |
|  | 2) Gratitude Letter | -2.18 | 244.46 | 0.03 | -0.27 |
| 2) Hassles List | 3) Gratitude Text | -3.03 | 241.99 | 0.00 | -0.39 |
|  | 4) Naikan Gratitude List | -1.78 | 253.52 | 0.08 | -0.22 |
|  | 5) Mental Subtraction Task | -2.61 | 252.38 | 0.01 | -0.33 |

**Table 27**

*Results comparing Self-Reported Attitude towards Life between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.56 | 256.95 | 0.58 | 0.07 |
| 2) Gratitude List/Gratitude Text | -0.53 | 239.77 | 0.59 | -0.07 |
| 3) Gratitude List/Naikan Gratitude List | 0.86 | 258.27 | 0.39 | 0.11 |
| 4) Gratitude List/Mental Subtraction Task | -0.04 | 257.47 | 0.97 | 0.00 |
| 5) Gratitude Letter/Gratitude Text | -1.06 | 234.19 | 0.29 | -0.14 |
| 6) Gratitude Letter/Naikan Gratitude List | 0.33 | 252.03 | 0.74 | 0.04 |
| 7) Gratitude Letter/Mental Subtraction Task | -0.57 | 251.20 | 0.57 | -0.07 |
| 8) Gratitude Text/Naikan Gratitude List | 1.32 | 243.35 | 0.19 | 0.17 |
| 9) Gratitude Text/Mental Subtraction Task | 0.48 | 242.20 | 0.63 | 0.06 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.86 | 257.00 | 0.39 | -0.11 |

**Table 28**

*Results comparing Self-Reported Attitude towards Life between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -0.22 | 262.19 | 0.82 | -0.03 |
| 2) Measurement Only/Interesting Events List | 0.66 | 263.82 | 0.51 | 0.08 |
| 3) Measurement Only/Hassles List | 1.95 | 260.24 | 0.05 | 0.24 |
| 4) Events List/Interesting Events List | 0.93 | 250.78 | 0.36 | 0.12 |
| 5) Events List/Hassles List | 2.26 | 243.60 | 0.02 | 0.28 |
| 6) Interesting Events List/Hassles List | 1.38 | 246.78 | 0.17 | 0.17 |

## Perceived Self-Size

**Table 29**

*Results comparing Self-Reported Perceived Self-Size between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -1.80 | 269.16 | 0.07 | -0.22 |
|  | 2) Gratitude Letter | -0.25 | 258.64 | 0.81 | -0.03 |
| 1) Measurement Only | 3) Gratitude Text | -1.12 | 252.81 | 0.26 | -0.14 |
|  | 4) Naikan Gratitude List | -0.91 | 266.58 | 0.36 | -0.11 |
|  | 5) Mental Subtraction Task | -1.38 | 259.62 | 0.17 | -0.17 |
|  | 1) Gratitude List | -0.82 | 247.82 | 0.41 | -0.10 |
|  | 2) Gratitude Letter | 0.60 | 249.98 | 0.55 | 0.07 |
| 2) Events List | 3) Gratitude Text | -0.20 | 240.33 | 0.84 | -0.03 |
|  | 4) Naikan Gratitude List | -0.01 | 252.31 | 0.99 | 0.00 |
|  | 5) Mental Subtraction Task | -0.51 | 252.68 | 0.61 | -0.06 |
|  | 1) Gratitude List | -2.24 | 255.02 | 0.03 | -0.28 |
|  | 2) Gratitude Letter | -0.65 | 249.10 | 0.52 | -0.08 |
| 3) Interesting Events List | 3) Gratitude Text | -1.54 | 241.83 | 0.12 | -0.20 |
|  | 4) Naikan Gratitude List | -1.33 | 255.00 | 0.19 | -0.16 |
|  | 5) Mental Subtraction Task | -1.77 | 250.72 | 0.08 | -0.22 |
|  | 1) Gratitude List | -2.36 | 240.85 | 0.02 | -0.29 |
|  | 2) Gratitude Letter | -0.89 | 249.88 | 0.37 | -0.11 |
| 2) Hassles List | 3) Gratitude Text | -1.72 | 238.18 | 0.09 | -0.22 |
|  | 4) Naikan Gratitude List | -1.52 | 248.93 | 0.13 | -0.19 |
|  | 5) Mental Subtraction Task | -1.93 | 253.60 | 0.05 | -0.24 |

**Table 30**

*Results comparing Self-Reported Perceived Self-Size between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 1.46 | 247.02 | 0.14 | 0.18 |
| 2) Gratitude List/Gratitude Text | 0.64 | 243.41 | 0.52 | 0.08 |
| 3) Gratitude List/Naikan Gratitude List | 0.84 | 258.15 | 0.40 | 0.10 |
| 4) Gratitude List/Mental Subtraction Task | 0.24 | 247.15 | 0.81 | 0.03 |
| 5) Gratitude Letter/Gratitude Text | -0.83 | 240.11 | 0.41 | -0.11 |
| 6) Gratitude Letter/Naikan Gratitude List | -0.63 | 251.95 | 0.53 | -0.08 |
| 7) Gratitude Letter/Mental Subtraction Task | -1.09 | 252.81 | 0.27 | -0.14 |
| 8) Gratitude Text/Naikan Gratitude List | 0.20 | 244.79 | 0.84 | 0.03 |
| 9) Gratitude Text/Mental Subtraction Task | -0.34 | 242.13 | 0.74 | -0.04 |
| 10) Naikan Gratitude List/Mental Subtraction Task | -0.52 | 253.52 | 0.60 | -0.06 |

**Table 31**

*Results comparing Self-Reported Perceived Self-Size between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) Measurement Only/Events List | -0.87 | 259.18 | 0.39 | -0.11 |
| 2) Measurement Only/Interesting Events List | 0.42 | 263.53 | 0.68 | 0.05 |
| 3) Measurement Only/Hassles List | 0.69 | 254.25 | 0.49 | 0.08 |
| 4) Events List/Interesting Events List | 1.27 | 249.45 | 0.21 | 0.16 |
| 5) Events List/Hassles List | 1.47 | 249.59 | 0.14 | 0.18 |
| 6) Interesting Events List/Hassles List | 0.30 | 246.22 | 0.76 | 0.04 |

# **Study 2 Pairwise Analysis**

**Table 32**

*Descriptive Scales for State Emotion Items and State Measures*

|  |  |  |  |
| --- | --- | --- | --- |
| State Emotion/Measures | M | SD | McDonalds’ ω |
| Optimism | 4.60 | 1.61 | 0.87 |
| Indebtedness | 3.07 | 1.58 | 0.53 |
| Guilt | 1.87 | 1.41 | NA |
| Envy | 1.74 | 1.08 | 0.81 |
| Social Connection | 4.03 | 0.97 | 0.92 |
| Attitude Towards Life | 5.93 | 1.90 | NA |
| Perceived Self-Size | 3.77 | 1.37 | 0.84 |

## Self-Reported Gratitude

**Table 33**

*Results comparing Self-Reported Gratitude between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -5.95 | 280.78 | 0.00 | -0.68 |
|  | 2) Gratitude Letter | -8.88 | 282.82 | 0.00 | -1.02 |
|  | 3) Gratitude Text | -9.11 | 273.34 | 0.00 | -1.05 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -6.10 | 284.12 | 0.00 | -0.70 |
|  | 5) Mental Subtraction Task | -5.98 | 285.64 | 0.00 | -0.70 |
|  | 6) Gratitude to God List | -5.98 | 285.64 | 0.00 | -0.29 |
|  | 7) Gratitude to God Letter | -3.26 | 281.65 | 0.00 | -0.38 |
|  | 1) Gratitude List | -4.71 | 253.97 | 0.00 | -0.56 |
|  | 2) Gratitude Letter | -7.54 | 258.91 | 0.00 | -0.89 |
|  | 3) Gratitude Text | -7.72 | 248.91 | 0.00 | -0.92 |
| 2) Events List | 4) Naikan Gratitude List | -4.89 | 260.65 | 0.00 | -0.58 |
|  | 5) Mental Subtraction Task | -4.82 | 267.25 | 0.00 | -0.58 |
|  | 6) Gratitude to God List | -1.62 | 283.94 | 0.11 | -0.19 |
|  | 7) Gratitude to God Letter | -2.35 | 278.04 | 0.02 | -0.28 |
|  | 1) Gratitude List | -4.37 | 259.73 | 0.00 | -0.52 |
|  | 2) Gratitude Letter | -7.27 | 263.82 | 0.00 | -0.86 |
|  | 3) Gratitude Text | -7.46 | 253.90 | 0.00 | -0.89 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -4.56 | 265.43 | 0.00 | -0.54 |
|  | 5) Mental Subtraction Task | -4.50 | 270.46 | 0.00 | -0.54 |
|  | 6) Gratitude to God List | -1.24 | 284.86 | 0.21 | -0.15 |
|  | 7) Gratitude to God Letter | -2.01 | 276.37 | 0.05 | -0.24 |
|  | 1) Gratitude List | -8.88 | 251.27 | 0.00 | -1.03 |
|  | 2) Gratitude Letter | -11.51 | 257.06 | 0.00 | -1.35 |
|  | 3) Gratitude Text | -11.75 | 247.12 | 0.00 | -1.38 |
| 2) Hassles List | 4) Naikan Gratitude List | -8.96 | 258.91 | 0.00 | -1.05 |
|  | 5) Mental Subtraction Task | -8.78 | 267.21 | 0.00 | -1.03 |
|  | 6) Gratitude to God List | -5.46 | 286.51 | 0.00 | -0.64 |
|  | 7) Gratitude to God Letter | -6.00 | 283.98 | 0.00 | -0.71 |

**Table 34**

*Results comparing Self-Reported Gratitude between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -3.57 | 290.71 | 0.00 | -0.41 |
| 2) Gratitude List/Gratitude Text | -3.71 | 286.24 | 0.00 | -0.43 |
| 3) Gratitude List/Naikan Gratitude List | -0.35 | 289.97 | 0.72 | -0.04 |
| 4) Gratitude List/Mental Subtraction Task | -0.46 | 274.70 | 0.65 | -0.05 |
| 5) Gratitude List/Gratitude to God List | 2.96 | 267.71 | 0.00 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 1.84 | 244.17 | 0.07 | 0.22 |
| 7) Gratitude Letter/Gratitude Text | -0.03 | 277.62 | 0.97 | 0.00 |
| 8) Gratitude Letter/Naikan Gratitude List | 3.10 | 283.95 | 0.00 | 0.37 |
| 9) Gratitude Letter/Mental Subtraction Task | 2.84 | 273.82 | 0.00 | 0.34 |
| 10) Gratitude Letter/Gratitude to God List | 5.90 | 271.28 | 0.00 | 0.69 |
| 11) Gratitude Letter/Gratitude to God Letter | 4.62 | 250.04 | 0.00 | 0.55 |
| 12) Gratitude Text/Naikan Gratitude List | 3.22 | 277.29 | 0.00 | 0.38 |
| 13) Gratitude Text/Mental Subtraction Task | 2.94 | 265.24 | 0.00 | 0.35 |
| 14) Gratitude Text/Gratitude to God List | 6.06 | 261.45 | 0.00 | 0.71 |
| 15) Gratitude Text/Gratitude to God Letter | 4.73 | 240.12 | 0.00 | 0.56 |
| 16) Naikan Gratitude List/Mental Subtraction Task | -0.12 | 274.67 | 0.91 | -0.01 |
| 17) Naikan Gratitude List/Gratitude to God List | 3.18 | 272.82 | 0.00 | 0.37 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 2.07 | 251.90 | 0.04 | 0.25 |
| 19) Mental Subtraction Task/Gratitude to God List | 3.18 | 276.93 | 0.00 | 0.37 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 2.11 | 260.38 | 0.04 | 0.25 |
| 21) Gratitude to God List/Gratitude to God Letter | -0.83 | 279.99 | 0.41 | -0.10 |

**Table 35**

*Results comparing Self-Reported Gratitude between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | -0.85 | 287.27 | 0.40 | -0.10 |
| 2) No Treatment Control/Interesting Events List | -1.28 | 289.37 | 0.20 | -0.15 |
| 3) No Treatment Control/Hassles List | 3.14 | 288.37 | 0.00 | 0.36 |
| 4) Events List /Interesting Events List | -0.40 | 279.57 | 0.69 | -0.05 |
| 5) Events List /Hassles List | 3.82 | 284.30 | 0.00 | 0.45 |
| 6) Interesting Events List/Hassles List | 4.27 | 282.80 | 0.00 | 0.50 |

## Self-Reported Positive Affect

**Table 36**

*Results comparing Self-Reported Positive Affect between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -3.22 | 301.48 | 0.00 | -0.37 |
|  | 2) Gratitude Letter | -4.18 | 292.51 | 0.00 | -0.49 |
|  | 3) Gratitude Text | -5.28 | 286.69 | 0.00 | -0.62 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -4.74 | 292.13 | 0.00 | -0.55 |
|  | 5) Mental Subtraction Task | -3.09 | 282.86 | 0.00 | -0.36 |
|  | 6) Gratitude to God List | -3.09 | 282.86 | 0.00 | -0.33 |
|  | 7) Gratitude to God Letter | -2.80 | 281.58 | 0.01 | -0.33 |
|  | 1) Gratitude List | -2.94 | 281.68 | 0.00 | -0.34 |
|  | 2) Gratitude Letter | -3.86 | 279.20 | 0.00 | -0.46 |
|  | 3) Gratitude Text | -4.89 | 272.82 | 0.00 | -0.58 |
| 2) Events List | 4) Naikan Gratitude List | -4.37 | 271.80 | 0.00 | -0.52 |
|  | 5) Mental Subtraction Task | -2.84 | 275.89 | 0.00 | -0.34 |
|  | 6) Gratitude to God List | -2.59 | 283.73 | 0.01 | -0.31 |
|  | 7) Gratitude to God Letter | -2.57 | 278.71 | 0.01 | -0.31 |
|  | 1) Gratitude List | -1.46 | 286.09 | 0.14 | -0.17 |
|  | 2) Gratitude Letter | -2.44 | 281.33 | 0.02 | -0.29 |
|  | 3) Gratitude Text | -3.48 | 275.11 | 0.00 | -0.42 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -2.90 | 276.32 | 0.00 | -0.34 |
|  | 5) Mental Subtraction Task | -1.43 | 275.73 | 0.15 | -0.17 |
|  | 6) Gratitude to God List | -1.16 | 284.93 | 0.25 | -0.14 |
|  | 7) Gratitude to God Letter | -1.20 | 277.06 | 0.23 | -0.14 |
|  | 1) Gratitude List | -5.95 | 285.39 | 0.00 | -0.69 |
|  | 2) Gratitude Letter | -6.79 | 283.48 | 0.00 | -0.80 |
|  | 3) Gratitude Text | -7.84 | 277.06 | 0.00 | -0.93 |
| 2) Hassles List | 4) Naikan Gratitude List | -7.41 | 275.50 | 0.00 | -0.87 |
|  | 5) Mental Subtraction Task | -5.71 | 280.71 | 0.00 | -0.68 |
|  | 6) Gratitude to God List | -5.49 | 288.23 | 0.00 | -0.64 |
|  | 7) Gratitude to God Letter | -5.36 | 283.88 | 0.00 | -0.63 |

**Table 37**

*Results comparing Self-Reported Positive Affect between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -1.06 | 291.02 | 0.29 | -0.12 |
| 2) Gratitude List/Gratitude Text | -2.13 | 285.43 | 0.03 | -0.25 |
| 3) Gratitude List/Naikan Gratitude List | -1.49 | 292.95 | 0.14 | -0.17 |
| 4) Gratitude List/Mental Subtraction Task | -0.04 | 279.64 | 0.97 | 0.00 |
| 5) Gratitude List/Gratitude to God List | 0.24 | 292.09 | 0.81 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 0.15 | 277.36 | 0.88 | 0.02 |
| 7) Gratitude Letter/Gratitude Text | -1.03 | 277.98 | 0.30 | -0.12 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.36 | 281.45 | 0.72 | -0.04 |
| 9) Gratitude Letter/Mental Subtraction Task | 0.96 | 276.23 | 0.34 | 0.11 |
| 10) Gratitude Letter/Gratitude to God List | 1.25 | 286.68 | 0.21 | 0.15 |
| 11) Gratitude Letter/Gratitude to God Letter | 1.11 | 276.18 | 0.27 | 0.13 |
| 12) Gratitude Text/Naikan Gratitude List | 0.71 | 275.90 | 0.48 | 0.08 |
| 13) Gratitude Text/Mental Subtraction Task | 1.97 | 269.91 | 0.05 | 0.24 |
| 14) Gratitude Text/Gratitude to God List | 2.27 | 280.51 | 0.02 | 0.27 |
| 15) Gratitude Text/Gratitude to God Letter | 2.09 | 269.73 | 0.04 | 0.25 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 1.36 | 269.79 | 0.18 | 0.16 |
| 17)  Naikan Gratitude List/Gratitude to God List | 1.66 | 282.36 | 0.10 | 0.19 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 1.50 | 267.48 | 0.14 | 0.18 |
| 19) Mental Subtraction Task/Gratitude to God List | 0.27 | 280.39 | 0.79 | 0.03 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 0.18 | 274.24 | 0.86 | 0.02 |
| 21) Gratitude to God List/Gratitude to God Letter | -0.08 | 281.24 | 0.93 | -0.01 |

**Table 38**

*Results comparing Self-Reported Positive Affect between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | -0.10 | 285.33 | 0.92 | -0.01 |
| 2) No Treatment Control/Interesting Events List | -1.64 | 288.68 | 0.10 | -0.19 |
| 3) No Treatment Control/Hassles List | 2.91 | 289.29 | 0.00 | 0.34 |
| 4) Events List /Interesting Events List | -1.46 | 279.26 | 0.15 | -0.17 |
| 5) Events List /Hassles List | 2.87 | 284.96 | 0.00 | 0.34 |
| 6) Interesting Events List/Hassles List | 4.38 | 283.87 | 0.00 | 0.51 |

## Self-Reported Optimism

**Table 39**

*Results comparing Self-Reported Optimism between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -3.30 | 294.13 | 0.00 | -0.38 |
|  | 2) Gratitude Letter | -3.02 | 293.00 | 0.00 | -0.35 |
|  | 3) Gratitude Text | -3.73 | 286.65 | 0.00 | -0.44 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -4.04 | 289.46 | 0.00 | -0.47 |
|  | 5) Mental Subtraction Task | -2.60 | 286.12 | 0.01 | -0.30 |
|  | 6) Gratitude to God List | -2.60 | 286.12 | 0.01 | -0.21 |
|  | 7) Gratitude to God Letter | -2.73 | 286.20 | 0.01 | -0.32 |
|  | 1) Gratitude List | -3.01 | 280.33 | 0.00 | -0.35 |
|  | 2) Gratitude Letter | -2.74 | 281.67 | 0.01 | -0.32 |
|  | 3) Gratitude Text | -3.46 | 276.00 | 0.00 | -0.41 |
| 2) Events List | 4) Naikan Gratitude List | -3.75 | 276.43 | 0.00 | -0.44 |
|  | 5) Mental Subtraction Task | -2.33 | 275.84 | 0.02 | -0.28 |
|  | 6) Gratitude to God List | -1.53 | 284.83 | 0.13 | -0.18 |
|  | 7) Gratitude to God Letter | -2.47 | 277.05 | 0.01 | -0.29 |
|  | 1) Gratitude List | -2.04 | 282.37 | 0.04 | -0.24 |
|  | 2) Gratitude Letter | -1.83 | 281.95 | 0.07 | -0.22 |
|  | 3) Gratitude Text | -2.56 | 275.83 | 0.01 | -0.31 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -2.80 | 277.89 | 0.01 | -0.33 |
|  | 5) Mental Subtraction Task | -1.42 | 275.44 | 0.16 | -0.17 |
|  | 6) Gratitude to God List | -0.61 | 285.00 | 0.54 | -0.07 |
|  | 7) Gratitude to God Letter | -1.60 | 276.00 | 0.11 | -0.19 |
|  | 1) Gratitude List | -5.99 | 279.42 | 0.00 | -0.70 |
|  | 2) Gratitude Letter | -5.58 | 284.93 | 0.00 | -0.65 |
|  | 3) Gratitude Text | -6.25 | 280.38 | 0.00 | -0.74 |
| 2) Hassles List | 4) Naikan Gratitude List | -6.68 | 276.90 | 0.00 | -0.78 |
|  | 5) Mental Subtraction Task | -5.13 | 280.80 | 0.00 | -0.61 |
|  | 6) Gratitude to God List | -4.39 | 288.35 | 0.00 | -0.51 |
|  | 7) Gratitude to God Letter | -5.18 | 283.69 | 0.00 | -0.61 |

**Table 40**

*Results comparing Self-Reported Optimism between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.10 | 285.58 | 0.92 | 0.01 |
| 2) Gratitude List/Gratitude Text | -0.70 | 276.03 | 0.48 | -0.08 |
| 3) Gratitude List/Naikan Gratitude List | -0.84 | 292.16 | 0.40 | -0.10 |
| 4) Gratitude List/Mental Subtraction Task | 0.49 | 273.84 | 0.62 | 0.06 |
| 5) Gratitude List/Gratitude to God List | 1.37 | 287.65 | 0.17 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 0.23 | 269.46 | 0.82 | 0.03 |
| 7) Gratitude Letter/Gratitude Text | -0.75 | 277.59 | 0.45 | -0.09 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.88 | 280.73 | 0.38 | -0.10 |
| 9) Gratitude Letter/Mental Subtraction Task | 0.37 | 277.05 | 0.71 | 0.04 |
| 10) Gratitude Letter/Gratitude to God List | 1.20 | 286.97 | 0.23 | 0.14 |
| 11) Gratitude Letter/Gratitude to God Letter | 0.13 | 277.14 | 0.90 | 0.02 |
| 12) Gratitude Text/Naikan Gratitude List | -0.09 | 272.20 | 0.93 | -0.01 |
| 13) Gratitude Text/Mental Subtraction Task | 1.11 | 271.89 | 0.27 | 0.13 |
| 14) Gratitude Text/Gratitude to God List | 1.94 | 280.77 | 0.05 | 0.23 |
| 15) Gratitude Text/Gratitude to God Letter | 0.84 | 273.26 | 0.40 | 0.10 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 1.26 | 270.54 | 0.21 | 0.15 |
| 17)  Naikan Gratitude List/Gratitude to God List | 2.14 | 283.11 | 0.03 | 0.25 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.97 | 267.63 | 0.33 | 0.11 |
| 19) Mental Subtraction Task/Gratitude to God List | 0.81 | 280.33 | 0.42 | 0.10 |
| 20) Mental Subtraction Task/Gratitude to God Letter | -0.23 | 274.03 | 0.82 | -0.03 |
| 21) Gratitude to God List/Gratitude to God Letter | -1.01 | 280.69 | 0.31 | -0.12 |

**Table 41**

*Results comparing Self-Reported Optimism between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | -0.28 | 290.72 | 0.78 | -0.03 |
| 2) No Treatment Control/Interesting Events List | -1.21 | 290.97 | 0.23 | -0.14 |
| 3) No Treatment Control/Hassles List | 2.62 | 294.01 | 0.01 | 0.30 |
| 4) Events List /Interesting Events List | -0.93 | 279.88 | 0.35 | -0.11 |
| 5) Events List /Hassles List | 2.90 | 284.26 | 0.00 | 0.34 |
| 6) Interesting Events List/Hassles List | 3.83 | 283.55 | 0.00 | 0.45 |

## Self-Reported Negative Affect

**Table 42**

*Results comparing Self-Reported Negative Affect between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 3.06 | 298.56 | 0.00 | 0.35 |
|  | 2) Gratitude Letter | 3.04 | 292.83 | 0.00 | 0.35 |
|  | 3) Gratitude Text | 3.02 | 285.97 | 0.00 | 0.35 |
| 1) No Treatment Control | 4) Naikan Gratitude List | 2.44 | 291.85 | 0.02 | 0.28 |
|  | 5) Mental Subtraction Task | 2.90 | 286.93 | 0.00 | 0.34 |
|  | 6) Gratitude to God List | 2.90 | 286.93 | 0.00 | 0.26 |
|  | 7) Gratitude to God Letter | 2.38 | 289.49 | 0.02 | 0.28 |
|  | 1) Gratitude List | 2.28 | 274.56 | 0.02 | 0.27 |
|  | 2) Gratitude Letter | 2.28 | 274.74 | 0.02 | 0.27 |
|  | 3) Gratitude Text | 2.29 | 274.26 | 0.02 | 0.27 |
| 2) Events List | 4) Naikan Gratitude List | 1.70 | 271.12 | 0.09 | 0.20 |
|  | 5) Mental Subtraction Task | 2.14 | 269.63 | 0.03 | 0.26 |
|  | 6) Gratitude to God List | 1.55 | 280.53 | 0.12 | 0.18 |
|  | 7) Gratitude to God Letter | 1.68 | 276.37 | 0.09 | 0.20 |
|  | 1) Gratitude List | 1.27 | 284.16 | 0.21 | 0.15 |
|  | 2) Gratitude Letter | 1.29 | 280.56 | 0.20 | 0.15 |
|  | 3) Gratitude Text | 1.32 | 275.96 | 0.19 | 0.16 |
| 3) Interesting Events List | 4) Naikan Gratitude List | 0.66 | 278.61 | 0.51 | 0.08 |
|  | 5) Mental Subtraction Task | 1.14 | 274.91 | 0.26 | 0.14 |
|  | 6) Gratitude to God List | 0.54 | 284.66 | 0.59 | 0.06 |
|  | 7) Gratitude to God Letter | 0.68 | 278.99 | 0.50 | 0.08 |
|  | 1) Gratitude List | 3.39 | 287.23 | 0.00 | 0.39 |
|  | 2) Gratitude Letter | 3.36 | 284.60 | 0.00 | 0.39 |
|  | 3) Gratitude Text | 3.34 | 280.98 | 0.00 | 0.40 |
| 2) Hassles List | 4) Naikan Gratitude List | 2.78 | 282.22 | 0.01 | 0.33 |
|  | 5) Mental Subtraction Task | 3.23 | 279.07 | 0.00 | 0.38 |
|  | 6) Gratitude to God List | 2.58 | 289.13 | 0.01 | 0.30 |
|  | 7) Gratitude to God Letter | 2.71 | 283.80 | 0.01 | 0.32 |

**Table 43**

*Results comparing Self-Reported Negative Affect between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.06 | 290.96 | 0.96 | 0.01 |
| 2) Gratitude List/Gratitude Text | 0.13 | 279.19 | 0.90 | 0.02 |
| 3) Gratitude List/Naikan Gratitude List | -0.63 | 292.41 | 0.53 | -0.07 |
| 4) Gratitude List/Mental Subtraction Task | -0.11 | 284.57 | 0.91 | -0.01 |
| 5) Gratitude List/Gratitude to God List | -0.71 | 291.75 | 0.48 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | -0.55 | 283.68 | 0.58 | -0.06 |
| 7) Gratitude Letter/Gratitude Text | 0.08 | 276.06 | 0.94 | 0.01 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.67 | 283.57 | 0.50 | -0.08 |
| 9) Gratitude Letter/Mental Subtraction Task | -0.16 | 277.98 | 0.87 | -0.02 |
| 10) Gratitude Letter/Gratitude to God List | -0.74 | 286.60 | 0.46 | -0.09 |
| 11) Gratitude Letter/Gratitude to God Letter | -0.59 | 279.79 | 0.55 | -0.07 |
| 12) Gratitude Text/Naikan Gratitude List | -0.73 | 273.90 | 0.47 | -0.09 |
| 13) Gratitude Text/Mental Subtraction Task | -0.23 | 270.47 | 0.82 | -0.03 |
| 14) Gratitude Text/Gratitude to God List | -0.80 | 280.39 | 0.43 | -0.09 |
| 15) Gratitude Text/Gratitude to God Letter | -0.65 | 274.91 | 0.52 | -0.08 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 0.51 | 277.37 | 0.61 | 0.06 |
| 17) Naikan Gratitude List/Gratitude to God List | -0.10 | 285.35 | 0.92 | -0.01 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.05 | 277.96 | 0.96 | 0.01 |
| 19) Mental Subtraction Task/Gratitude to God List | -0.59 | 280.77 | 0.56 | -0.07 |
| 20) Mental Subtraction Task/Gratitude to God Letter | -0.44 | 274.10 | 0.66 | -0.05 |
| 21) Gratitude to God List/Gratitude to God Letter | 0.15 | 283.77 | 0.88 | 0.02 |

**Table 44**

*Results comparing Self-Reported Negative Affect between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | 0.58 | 285.44 | 0.56 | 0.07 |
| 2) No Treatment Control/Interesting Events List | 1.69 | 290.34 | 0.09 | 0.20 |
| 3) No Treatment Control/Hassles List | -0.39 | 294.63 | 0.70 | -0.05 |
| 4) Events List /Interesting Events List | 1.03 | 277.66 | 0.31 | 0.12 |
| 5) Events List /Hassles List | -0.94 | 283.55 | 0.35 | -0.11 |
| 6) Interesting Events List/Hassles List | -2.04 | 284.88 | 0.04 | -0.24 |

## Self-Reported Indebtedness

**Table 45**

*Results comparing Self-Reported Indebtedness between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 0.50 | 301.77 | 0.62 | 0.06 |
|  | 2) Gratitude Letter | -2.20 | 292.07 | 0.03 | -0.26 |
|  | 3) Gratitude Text | -2.49 | 274.33 | 0.01 | -0.29 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -1.12 | 292.67 | 0.26 | -0.13 |
|  | 5) Mental Subtraction Task | -0.72 | 281.29 | 0.47 | -0.08 |
|  | 6) Gratitude to God List | -0.72 | 281.29 | 0.47 | 0.16 |
|  | 7) Gratitude to God Letter | -0.54 | 287.30 | 0.59 | -0.06 |
|  | 1) Gratitude List | -0.80 | 287.43 | 0.42 | -0.09 |
|  | 2) Gratitude Letter | -3.40 | 281.78 | 0.00 | -0.40 |
|  | 3) Gratitude Text | -3.61 | 271.30 | 0.00 | -0.43 |
| 2) Events List | 4) Naikan Gratitude List | -2.36 | 281.28 | 0.02 | -0.28 |
|  | 5) Mental Subtraction Task | -1.92 | 275.06 | 0.06 | -0.23 |
|  | 6) Gratitude to God List | 0.07 | 284.13 | 0.94 | 0.01 |
|  | 7) Gratitude to God Letter | -1.76 | 278.95 | 0.08 | -0.21 |
|  | 1) Gratitude List | 0.61 | 288.47 | 0.54 | 0.07 |
|  | 2) Gratitude Letter | -2.05 | 281.97 | 0.04 | -0.24 |
|  | 3) Gratitude Text | -2.35 | 269.99 | 0.02 | -0.28 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -0.99 | 281.70 | 0.32 | -0.12 |
|  | 5) Mental Subtraction Task | -0.60 | 274.40 | 0.55 | -0.07 |
|  | 6) Gratitude to God List | 1.47 | 284.60 | 0.14 | 0.17 |
|  | 7) Gratitude to God Letter | -0.42 | 278.74 | 0.67 | -0.05 |
|  | 1) Gratitude List | -1.39 | 295.26 | 0.17 | -0.16 |
|  | 2) Gratitude Letter | -4.15 | 281.97 | 0.00 | -0.49 |
|  | 3) Gratitude Text | -4.29 | 259.45 | 0.00 | -0.51 |
| 2) Hassles List | 4) Naikan Gratitude List | -3.05 | 283.51 | 0.00 | -0.36 |
|  | 5) Mental Subtraction Task | -2.54 | 268.23 | 0.01 | -0.30 |
|  | 6) Gratitude to God List | -0.44 | 286.78 | 0.66 | -0.05 |
|  | 7) Gratitude to God Letter | -2.39 | 275.70 | 0.02 | -0.28 |

**Table 46**

*Results comparing Self-Reported Indebtedness between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -2.72 | 290.95 | 0.01 | -0.32 |
| 2) Gratitude List/Gratitude Text | -2.97 | 271.17 | 0.00 | -0.35 |
| 3) Gratitude List/Naikan Gratitude List | -1.63 | 291.91 | 0.10 | -0.19 |
| 4) Gratitude List/Mental Subtraction Task | -1.20 | 278.97 | 0.23 | -0.14 |
| 5) Gratitude List/Gratitude to God List | 0.89 | 295.07 | 0.37 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | -1.03 | 285.59 | 0.30 | -0.12 |
| 7) Gratitude Letter/Gratitude Text | -0.44 | 271.15 | 0.66 | -0.05 |
| 8) Gratitude Letter/Naikan Gratitude List | 1.09 | 283.85 | 0.28 | 0.13 |
| 9) Gratitude Letter/Mental Subtraction Task | 1.39 | 275.95 | 0.17 | 0.17 |
| 10) Gratitude Letter/Gratitude to God List | 3.54 | 286.78 | 0.00 | 0.42 |
| 11) Gratitude Letter/Gratitude to God Letter | 1.61 | 280.54 | 0.11 | 0.19 |
| 12) Gratitude Text/Naikan Gratitude List | 1.46 | 269.15 | 0.15 | 0.17 |
| 13) Gratitude Text/Mental Subtraction Task | 1.73 | 270.54 | 0.09 | 0.21 |
| 14) Gratitude Text/Gratitude to God List | 3.73 | 271.57 | 0.00 | 0.44 |
| 15) Gratitude Text/Gratitude to God Letter | 1.93 | 271.17 | 0.05 | 0.23 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 0.35 | 274.75 | 0.73 | 0.04 |
| 17)  Naikan Gratitude List/Gratitude to God List | 2.48 | 286.99 | 0.01 | 0.29 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.55 | 279.88 | 0.58 | 0.07 |
| 19) Mental Subtraction Task/Gratitude to God List | 2.02 | 277.41 | 0.04 | 0.24 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 0.18 | 274.43 | 0.85 | 0.02 |
| 21) Gratitude to God List/Gratitude to God Letter | -1.87 | 282.68 | 0.06 | -0.22 |

**Table 47**

*Results comparing Self-Reported Indebtedness between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | 1.27 | 288.96 | 0.20 | 0.15 |
| 2) No Treatment Control/Interesting Events List | -0.11 | 289.73 | 0.91 | -0.01 |
| 3) No Treatment Control/Hassles List | 1.88 | 294.23 | 0.06 | 0.22 |
| 4) Events List /Interesting Events List | -1.37 | 279.91 | 0.17 | -0.16 |
| 5) Events List /Hassles List | 0.50 | 277.81 | 0.61 | 0.06 |
| 6) Interesting Events List/Hassles List | 1.97 | 279.27 | 0.05 | 0.23 |

## Self-Reported Guilt

**Table 48**

*Results comparing Self-Reported Guilt between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 1.00 | 290.98 | 0.32 | 0.12 |
|  | 2) Gratitude Letter | 0.91 | 285.90 | 0.36 | 0.11 |
|  | 3) Gratitude Text | 0.45 | 292.31 | 0.65 | 0.05 |
| 1) No Treatment Control | 4) Naikan Gratitude List | 0.71 | 286.49 | 0.48 | 0.08 |
|  | 5) Mental Subtraction Task | 0.71 | 286.49 | 0.48 | 0.25 |
|  | 6) Gratitude to God List | 1.97 | 274.00 | 0.05 | 0.23 |
|  | 7) Gratitude to God Letter | 1.00 | 290.98 | 0.32 | 0.12 |
|  | 1) Gratitude List | 1.54 | 270.61 | 0.12 | 0.18 |
|  | 2) Gratitude Letter | 1.41 | 267.30 | 0.16 | 0.17 |
|  | 3) Gratitude Text | 1.30 | 273.66 | 0.19 | 0.16 |
| 2) Events List | 4) Naikan Gratitude List | 0.89 | 271.05 | 0.37 | 0.11 |
|  | 5) Mental Subtraction Task | 1.12 | 272.59 | 0.26 | 0.13 |
|  | 6) Gratitude to God List | 2.52 | 246.56 | 0.01 | 0.30 |
|  | 7) Gratitude to God Letter | 2.32 | 243.32 | 0.02 | 0.28 |
|  | 1) Gratitude List | 0.64 | 286.65 | 0.52 | 0.08 |
|  | 2) Gratitude Letter | 0.50 | 280.08 | 0.61 | 0.06 |
|  | 3) Gratitude Text | 0.43 | 274.92 | 0.66 | 0.05 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -0.05 | 281.36 | 0.96 | -0.01 |
|  | 5) Mental Subtraction Task | 0.23 | 275.49 | 0.82 | 0.03 |
|  | 6) Gratitude to God List | 1.68 | 267.69 | 0.09 | 0.20 |
|  | 7) Gratitude to God Letter | 1.46 | 263.41 | 0.15 | 0.17 |
|  | 1) Gratitude List | 0.89 | 288.30 | 0.38 | 0.10 |
|  | 2) Gratitude Letter | 0.75 | 282.71 | 0.45 | 0.09 |
|  | 3) Gratitude Text | 0.67 | 280.87 | 0.50 | 0.08 |
| 2) Hassles List | 4) Naikan Gratitude List | 0.21 | 284.76 | 0.83 | 0.02 |
|  | 5) Mental Subtraction Task | 0.47 | 281.00 | 0.64 | 0.06 |
|  | 6) Gratitude to God List | 1.90 | 267.32 | 0.06 | 0.22 |
|  | 7) Gratitude to God Letter | 1.68 | 263.34 | 0.09 | 0.20 |

**Table 49**

*Results comparing Self-Reported Guilt between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | -0.14 | 292.52 | 0.89 | -0.02 |
| 2) Gratitude List/Gratitude Text | -0.18 | 277.45 | 0.86 | -0.02 |
| 3) Gratitude List/Naikan Gratitude List | -0.71 | 291.34 | 0.48 | -0.08 |
| 4) Gratitude List/Mental Subtraction Task | -0.40 | 279.30 | 0.69 | -0.05 |
| 5) Gratitude List/Gratitude to God List | 1.05 | 290.76 | 0.30 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 0.81 | 285.62 | 0.42 | 0.09 |
| 7) Gratitude Letter/Gratitude Text | -0.04 | 272.26 | 0.97 | 0.00 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.57 | 283.65 | 0.57 | -0.07 |
| 9) Gratitude Letter/Mental Subtraction Task | -0.26 | 273.68 | 0.79 | -0.03 |
| 10) Gratitude Letter/Gratitude to God List | 1.19 | 278.53 | 0.23 | 0.14 |
| 11) Gratitude Letter/Gratitude to God Letter | 0.96 | 273.66 | 0.34 | 0.11 |
| 12) Gratitude Text/Naikan Gratitude List | -0.49 | 274.65 | 0.62 | -0.06 |
| 13) Gratitude Text/Mental Subtraction Task | -0.21 | 271.89 | 0.84 | -0.02 |
| 14) Gratitude Text/Gratitude to God List | 1.15 | 255.79 | 0.25 | 0.14 |
| 15) Gratitude Text/Gratitude to God Letter | 0.93 | 251.93 | 0.35 | 0.11 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 0.28 | 275.73 | 0.78 | 0.03 |
| 17) Naikan Gratitude List/Gratitude to God List | 1.78 | 275.06 | 0.08 | 0.21 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 1.55 | 270.44 | 0.12 | 0.18 |
| 19) Mental Subtraction Task/Gratitude to God List | 1.40 | 258.41 | 0.16 | 0.17 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 1.18 | 254.41 | 0.24 | 0.14 |
| 21) Gratitude to God List/Gratitude to God Letter | -0.26 | 283.97 | 0.79 | -0.03 |

**Table 50**

*Results comparing Self-Reported Guilt between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | -0.45 | 284.23 | 0.65 | -0.05 |
| 2) No Treatment Control/Interesting Events List | 0.49 | 291.00 | 0.62 | 0.06 |
| 3) No Treatment Control/Hassles List | 0.23 | 295.52 | 0.82 | 0.03 |
| 4) Events List /Interesting Events List | 0.92 | 273.48 | 0.36 | 0.11 |
| 5) Events List /Hassles List | 0.66 | 281.33 | 0.51 | 0.08 |
| 6) Interesting Events List/Hassles List | -0.25 | 284.52 | 0.80 | -0.03 |

## Self-Reported Envy

**Table 51**

*Results comparing Self-Reported Envy between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | 3.14 | 281.93 | 0.00 | 0.36 |
|  | 2) Gratitude Letter | 4.16 | 282.83 | 0.00 | 0.48 |
|  | 3) Gratitude Text | 4.53 | 281.54 | 0.00 | 0.53 |
| 1) No Treatment Control | 4) Naikan Gratitude List | 2.16 | 291.69 | 0.03 | 0.25 |
|  | 5) Mental Subtraction Task | 3.63 | 278.80 | 0.00 | 0.42 |
|  | 6) Gratitude to God List | 3.63 | 278.80 | 0.00 | 0.18 |
|  | 7) Gratitude to God Letter | 2.40 | 288.74 | 0.02 | 0.28 |
|  | 1) Gratitude List | 1.57 | 253.49 | 0.12 | 0.18 |
|  | 2) Gratitude Letter | 2.55 | 257.36 | 0.01 | 0.30 |
|  | 3) Gratitude Text | 2.93 | 258.50 | 0.00 | 0.35 |
| 2) Events List | 4) Naikan Gratitude List | 0.74 | 272.06 | 0.46 | 0.09 |
|  | 5) Mental Subtraction Task | 2.06 | 254.45 | 0.04 | 0.25 |
|  | 6) Gratitude to God List | 0.22 | 278.34 | 0.83 | 0.03 |
|  | 7) Gratitude to God Letter | 0.96 | 269.29 | 0.34 | 0.11 |
|  | 1) Gratitude List | 1.83 | 263.53 | 0.07 | 0.22 |
|  | 2) Gratitude Letter | 2.85 | 265.93 | 0.00 | 0.34 |
|  | 3) Gratitude Text | 3.24 | 265.83 | 0.00 | 0.39 |
| 3) Interesting Events List | 4) Naikan Gratitude List | 0.95 | 277.73 | 0.34 | 0.11 |
|  | 5) Mental Subtraction Task | 2.34 | 262.41 | 0.02 | 0.28 |
|  | 6) Gratitude to God List | 0.40 | 282.87 | 0.69 | 0.05 |
|  | 7) Gratitude to God Letter | 1.18 | 274.84 | 0.24 | 0.14 |
|  | 1) Gratitude List | 3.75 | 274.74 | 0.00 | 0.44 |
|  | 2) Gratitude Letter | 4.76 | 275.90 | 0.00 | 0.56 |
|  | 3) Gratitude Text | 5.13 | 274.81 | 0.00 | 0.60 |
| 2) Hassles List | 4) Naikan Gratitude List | 2.72 | 285.28 | 0.01 | 0.32 |
|  | 5) Mental Subtraction Task | 4.23 | 271.95 | 0.00 | 0.50 |
|  | 6) Gratitude to God List | 2.12 | 289.53 | 0.03 | 0.25 |
|  | 7) Gratitude to God Letter | 2.96 | 282.34 | 0.00 | 0.35 |

**Table 52**

*Results comparing Self-Reported Envy between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 1.24 | 291.13 | 0.22 | 0.14 |
| 2) Gratitude List/Gratitude Text | 1.72 | 282.08 | 0.09 | 0.20 |
| 3) Gratitude List/Naikan Gratitude List | -0.87 | 281.24 | 0.38 | -0.10 |
| 4) Gratitude List/Mental Subtraction Task | 0.63 | 284.25 | 0.53 | 0.07 |
| 5) Gratitude List/Gratitude to God List | -1.45 | 279.84 | 0.15 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | -0.62 | 278.23 | 0.54 | -0.07 |
| 7) Gratitude Letter/Gratitude Text | 0.48 | 277.26 | 0.63 | 0.06 |
| 8) Gratitude Letter/Naikan Gratitude List | -1.99 | 279.61 | 0.05 | -0.23 |
| 9) Gratitude Letter/Mental Subtraction Task | -0.60 | 277.91 | 0.55 | -0.07 |
| 10) Gratitude Letter/Gratitude to God List | -2.53 | 279.67 | 0.01 | -0.30 |
| 11) Gratitude Letter/Gratitude to God Letter | -1.74 | 276.59 | 0.08 | -0.21 |
| 12) Gratitude Text/Naikan Gratitude List | -2.41 | 276.49 | 0.02 | -0.29 |
| 13) Gratitude Text/Mental Subtraction Task | -1.07 | 271.69 | 0.29 | -0.13 |
| 14) Gratitude Text/Gratitude to God List | -2.93 | 277.59 | 0.00 | -0.35 |
| 15) Gratitude Text/Gratitude to God Letter | -2.17 | 273.47 | 0.03 | -0.26 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 1.43 | 274.84 | 0.15 | 0.17 |
| 17) Naikan Gratitude List/Gratitude to God List | -0.56 | 286.59 | 0.57 | -0.07 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.24 | 281.00 | 0.81 | 0.03 |
| 19) Mental Subtraction Task/Gratitude to God List | -1.99 | 275.31 | 0.05 | -0.23 |
| 20) Mental Subtraction Task/Gratitude to God Letter | -1.18 | 271.82 | 0.24 | -0.14 |
| 21) Gratitude to God List/Gratitude to God Letter | 0.80 | 283.62 | 0.43 | 0.09 |

**Table 53**

*Results comparing Self-Reported Envy between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | p | Hedges’ g |
| 1) No Treatment Control/Events List | 1.26 | 286.47 | 0.21 | 0.15 |
| 2) No Treatment Control/Interesting Events List | 1.14 | 290.05 | 0.26 | 0.13 |
| 3) No Treatment Control/Hassles List | -0.52 | 295.97 | 0.60 | -0.06 |
| 4) Events List /Interesting Events List | -0.16 | 278.69 | 0.87 | -0.02 |
| 5) Events List /Hassles List | -1.76 | 281.28 | 0.08 | -0.21 |
| 6) Interesting Events List/Hassles List | -1.66 | 284.38 | 0.10 | -0.20 |

## Satisfaction with Life

**Table 54**

*Results comparing Satisfaction with Life between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | T | df | p | Hedges’ g |
|  | 1) Gratitude List | -1.53 | 298.25 | 0.13 | -0.18 |
|  | 2) Gratitude Letter | -0.36 | 292.91 | 0.72 | -0.04 |
|  | 3) Gratitude Text | -2.31 | 284.21 | 0.02 | -0.27 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -1.91 | 292.97 | 0.06 | -0.22 |
|  | 5) Mental Subtraction Task | -1.67 | 286.67 | 0.10 | -0.20 |
|  | 6) Gratitude to God List | -1.67 | 286.67 | 0.10 | -0.23 |
|  | 7) Gratitude to God Letter | -2.25 | 289.86 | 0.03 | -0.26 |
|  | 1) Gratitude List | -1.25 | 281.54 | 0.21 | -0.15 |
|  | 2) Gratitude Letter | -0.11 | 281.18 | 0.91 | -0.01 |
|  | 3) Gratitude Text | -2.04 | 275.79 | 0.04 | -0.24 |
| 2) Events List | 4) Naikan Gratitude List | -1.63 | 280.94 | 0.11 | -0.19 |
|  | 5) Mental Subtraction Task | -1.40 | 275.61 | 0.16 | -0.17 |
|  | 6) Gratitude to God List | -1.70 | 283.94 | 0.09 | -0.20 |
|  | 7) Gratitude to God Letter | -1.96 | 278.32 | 0.05 | -0.23 |
|  | 1) Gratitude List | 0.84 | 285.84 | 0.40 | 0.10 |
|  | 2) Gratitude Letter | 1.92 | 281.99 | 0.06 | 0.23 |
|  | 3) Gratitude Text | -0.12 | 274.37 | 0.91 | -0.01 |
| 3) Interesting Events List | 4) Naikan Gratitude List | 0.37 | 281.96 | 0.71 | 0.04 |
|  | 5) Mental Subtraction Task | 0.60 | 275.96 | 0.55 | 0.07 |
|  | 6) Gratitude to God List | 0.28 | 284.96 | 0.78 | 0.03 |
|  | 7) Gratitude to God Letter | 0.02 | 279.00 | 0.98 | 0.00 |
|  | 1) Gratitude List | -1.02 | 290.64 | 0.31 | -0.12 |
|  | 2) Gratitude Letter | 0.13 | 286.99 | 0.90 | 0.02 |
|  | 3) Gratitude Text | -1.83 | 279.41 | 0.07 | -0.22 |
| 2) Hassles List | 4) Naikan Gratitude List | -1.41 | 286.95 | 0.16 | -0.17 |
|  | 5) Mental Subtraction Task | -1.18 | 280.97 | 0.24 | -0.14 |
|  | 6) Gratitude to God List | -1.49 | 289.95 | 0.14 | -0.17 |
|  | 7) Gratitude to God Letter | -1.75 | 284.00 | 0.08 | -0.21 |

**Table 55**

*Results comparing Satisfaction with Life between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 1.16 | 288.13 | 0.25 | 0.14 |
| 2) Gratitude List/Gratitude Text | -0.94 | 274.82 | 0.35 | -0.11 |
| 3) Gratitude List/Naikan Gratitude List | -0.46 | 288.67 | 0.64 | -0.05 |
| 4) Gratitude List/Mental Subtraction Task | -0.22 | 280.97 | 0.83 | -0.03 |
| 5) Gratitude List/Gratitude to God List | -0.55 | 291.61 | 0.58 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | -0.83 | 284.85 | 0.41 | -0.10 |
| 7) Gratitude Letter/Gratitude Text | -1.98 | 276.17 | 0.05 | -0.24 |
| 8) Gratitude Letter/Naikan Gratitude List | -1.56 | 283.98 | 0.12 | -0.18 |
| 9) Gratitude Letter/Mental Subtraction Task | -1.32 | 277.93 | 0.19 | -0.16 |
| 10) Gratitude Letter/Gratitude to God List | -1.63 | 286.99 | 0.10 | -0.19 |
| 11) Gratitude Letter/Gratitude to God Letter | -1.90 | 280.99 | 0.06 | -0.23 |
| 12) Gratitude Text/Naikan Gratitude List | 0.47 | 275.82 | 0.64 | 0.06 |
| 13) Gratitude Text/Mental Subtraction Task | 0.70 | 270.86 | 0.48 | 0.08 |
| 14) Gratitude Text/Gratitude to God List | 0.39 | 278.82 | 0.70 | 0.05 |
| 15) Gratitude Text/Gratitude to God Letter | 0.14 | 273.38 | 0.89 | 0.02 |
| 16) Naikan Gratitude List/Mental Subtraction Task | 0.24 | 277.84 | 0.81 | 0.03 |
| 17) Naikan Gratitude List/Gratitude to God List | -0.09 | 287.00 | 0.93 | -0.01 |
| 18) Naikan Gratitude List/Gratitude to God Letter | -0.35 | 280.96 | 0.73 | -0.04 |
| 19) Mental Subtraction Task/Gratitude to God List | -0.32 | 280.84 | 0.75 | -0.04 |
| 20) Mental Subtraction Task/Gratitude to God Letter | -0.58 | 274.96 | 0.56 | -0.07 |
| 21) Gratitude to God List/Gratitude to God Letter | -0.26 | 283.96 | 0.79 | -0.03 |

**Table 56**

*Results comparing Satisfaction with Life between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | P | Hedges’ g |
| 1) No Treatment Control/Events List | -0.24 | 289.52 | 0.81 | -0.03 |
| 2) No Treatment Control/Interesting Events List | -2.26 | 290.86 | 0.02 | -0.26 |
| 3) No Treatment Control/Hassles List | -0.49 | 295.83 | 0.63 | -0.06 |
| 4) Events List /Interesting Events List | -1.98 | 279.31 | 0.05 | -0.24 |
| 5) Events List /Hassles List | -0.23 | 284.35 | 0.82 | -0.03 |
| 6) Interesting Events List/Hassles List | 1.77 | 285.00 | 0.08 | 0.21 |

## Social Connection

**Table 57**

*Results comparing Social Connection between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -2.03 | 297.64 | 0.04 | -0.23 |
|  | 2) Gratitude Letter | -1.42 | 292.75 | 0.16 | -0.17 |
|  | 3) Gratitude Text | -3.10 | 282.43 | 0.00 | -0.36 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -2.02 | 291.55 | 0.04 | -0.23 |
|  | 5) Mental Subtraction Task | -2.79 | 286.81 | 0.01 | -0.33 |
|  | 6) Gratitude to God List | -2.79 | 286.81 | 0.01 | -0.19 |
|  | 7) Gratitude to God Letter | -1.35 | 285.49 | 0.18 | -0.16 |
|  | 1) Gratitude List | -0.90 | 286.52 | 0.37 | -0.10 |
|  | 2) Gratitude Letter | -0.35 | 281.81 | 0.73 | -0.04 |
|  | 3) Gratitude Text | -1.96 | 271.31 | 0.05 | -0.23 |
| 2) Events List | 4) Naikan Gratitude List | -0.90 | 280.45 | 0.37 | -0.11 |
|  | 5) Mental Subtraction Task | -1.69 | 275.77 | 0.09 | -0.20 |
|  | 6) Gratitude to God List | -0.55 | 284.74 | 0.58 | -0.06 |
|  | 7) Gratitude to God Letter | -0.32 | 274.93 | 0.75 | -0.04 |
|  | 1) Gratitude List | -1.76 | 284.14 | 0.08 | -0.21 |
|  | 2) Gratitude Letter | -1.17 | 281.99 | 0.24 | -0.14 |
|  | 3) Gratitude Text | -2.83 | 269.01 | 0.01 | -0.34 |
| 3) Interesting Events List | 4) Naikan Gratitude List | -1.75 | 278.94 | 0.08 | -0.21 |
|  | 5) Mental Subtraction Task | -2.53 | 275.03 | 0.01 | -0.30 |
|  | 6) Gratitude to God List | -1.39 | 283.94 | 0.16 | -0.16 |
|  | 7) Gratitude to God Letter | -1.11 | 276.69 | 0.27 | -0.13 |
|  | 1) Gratitude List | -1.26 | 289.21 | 0.21 | -0.15 |
|  | 2) Gratitude Letter | -0.71 | 287.00 | 0.48 | -0.08 |
|  | 3) Gratitude Text | -2.30 | 274.08 | 0.02 | -0.27 |
| 2) Hassles List | 4) Naikan Gratitude List | -1.26 | 284.00 | 0.21 | -0.15 |
|  | 5) Mental Subtraction Task | -2.03 | 280.07 | 0.04 | -0.24 |
|  | 6) Gratitude to God List | -0.91 | 288.99 | 0.36 | -0.11 |
|  | 7) Gratitude to God Letter | -0.66 | 281.54 | 0.51 | -0.08 |

**Table 58**

*Results comparing Self-Reported Social Connection between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.52 | 286.51 | 0.60 | 0.06 |
| 2) Gratitude List/Gratitude Text | -1.09 | 286.98 | 0.28 | -0.13 |
| 3) Gratitude List/Naikan Gratitude List | -0.01 | 292.25 | 0.99 | 0.00 |
| 4) Gratitude List/Mental Subtraction Task | -0.85 | 284.37 | 0.40 | -0.10 |
| 5) Gratitude List/Gratitude to God List | 0.33 | 293.37 | 0.74 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 0.51 | 273.61 | 0.61 | 0.06 |
| 7) Gratitude Letter/Gratitude Text | -1.55 | 271.36 | 0.12 | -0.18 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.52 | 281.19 | 0.60 | -0.06 |
| 9) Gratitude Letter/Mental Subtraction Task | -1.31 | 277.17 | 0.19 | -0.16 |
| 10) Gratitude Letter/Gratitude to God List | -0.19 | 286.10 | 0.85 | -0.02 |
| 11) Gratitude Letter/Gratitude to God Letter | 0.01 | 278.42 | 0.99 | 0.00 |
| 12) Gratitude Text/Naikan Gratitude List | 1.07 | 277.07 | 0.29 | 0.13 |
| 13) Gratitude Text/Mental Subtraction Task | 0.19 | 269.14 | 0.85 | 0.02 |
| 14) Gratitude Text/Gratitude to God List | 1.38 | 278.14 | 0.17 | 0.16 |
| 15) Gratitude Text/Gratitude to God Letter | 1.49 | 258.99 | 0.14 | 0.18 |
| 16) Naikan Gratitude List/Mental Subtraction Task | -0.83 | 277.43 | 0.40 | -0.10 |
| 17) Naikan Gratitude List/Gratitude to God List | 0.33 | 286.44 | 0.74 | 0.04 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.51 | 270.75 | 0.61 | 0.06 |
| 19) Mental Subtraction Task/Gratitude to God List | 1.14 | 281.00 | 0.26 | 0.14 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 1.26 | 268.96 | 0.21 | 0.15 |
| 21) Gratitude to God List/Gratitude to God Letter | 1.26 | 268.96 | 0.21 | 0.15 |

**Table 59**

*Results comparing Social Connection between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | P | Hedges’ g |
| 1) No Treatment Control/Events List | -1.10 | 291.00 | 0.27 | -0.13 |
| 2) No Treatment Control/Interesting Events List | -0.26 | 290.66 | 0.80 | -0.03 |
| 3) No Treatment Control/Hassles List | -0.71 | 295.69 | 0.48 | -0.08 |
| 4) Events List /Interesting Events List | 0.85 | 279.74 | 0.40 | 0.10 |
| 5) Events List /Hassles List | 0.37 | 284.77 | 0.71 | 0.04 |
| 6) Interesting Events List/Hassles List | -0.46 | 285.00 | 0.65 | -0.05 |

## Attitude Towards Life

**Table 60**

*Results comparing Attitude towards Life between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -0.88 | 301.49 | 0.38 | -0.10 |
|  | 2) Gratitude Letter | -0.39 | 293.00 | 0.70 | -0.05 |
|  | 3) Gratitude Text | -0.69 | 282.34 | 0.49 | -0.08 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -1.32 | 292.97 | 0.19 | -0.15 |
|  | 5) Mental Subtraction Task | -1.77 | 283.80 | 0.08 | -0.21 |
|  | 6) Gratitude to God List | -1.77 | 283.80 | 0.08 | -0.12 |
|  | 7) Gratitude to God Letter | -1.19 | 287.80 | 0.24 | -0.14 |
|  | 1) Gratitude List | -1.24 | 290.07 | 0.22 | -0.14 |
|  | 2) Gratitude Letter | -0.74 | 281.95 | 0.46 | -0.09 |
|  | 3) Gratitude Text | -1.03 | 272.53 | 0.31 | -0.12 |
| 2) Events List | 4) Naikan Gratitude List | -1.68 | 281.99 | 0.10 | -0.20 |
|  | 5) Mental Subtraction Task | -2.11 | 273.76 | 0.04 | -0.25 |
|  | 6) Gratitude to God List | -1.35 | 283.69 | 0.18 | -0.16 |
|  | 7) Gratitude to God Letter | -1.53 | 277.57 | 0.13 | -0.18 |
|  | 1) Gratitude List | 0.83 | 290.64 | 0.41 | 0.10 |
|  | 2) Gratitude Letter | 1.33 | 281.98 | 0.19 | 0.16 |
|  | 3) Gratitude Text | 0.92 | 271.13 | 0.36 | 0.11 |
| 3) Interesting Events List | 4) Naikan Gratitude List | 0.37 | 281.93 | 0.71 | 0.04 |
|  | 5) Mental Subtraction Task | -0.15 | 272.59 | 0.88 | -0.02 |
|  | 6) Gratitude to God List | 0.61 | 282.74 | 0.54 | 0.07 |
|  | 7) Gratitude to God Letter | 0.45 | 276.60 | 0.65 | 0.05 |
|  | 1) Gratitude List | -1.40 | 294.69 | 0.16 | -0.16 |
|  | 2) Gratitude Letter | -0.90 | 286.84 | 0.37 | -0.11 |
|  | 3) Gratitude Text | -1.18 | 278.06 | 0.24 | -0.14 |
| 2) Hassles List | 4) Naikan Gratitude List | -1.83 | 286.93 | 0.07 | -0.21 |
|  | 5) Mental Subtraction Task | -2.25 | 279.19 | 0.02 | -0.27 |
|  | 6) Gratitude to God List | -1.50 | 289.03 | 0.13 | -0.18 |
|  | 7) Gratitude to God Letter | -1.68 | 282.92 | 0.09 | -0.20 |

**Table 61**

*Results comparing Attitude towards Life between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 0.50 | 292.45 | 0.62 | 0.06 |
| 2) Gratitude List/Gratitude Text | 0.14 | 279.00 | 0.89 | 0.02 |
| 3) Gratitude List/Naikan Gratitude List | -0.45 | 292.25 | 0.65 | -0.05 |
| 4) Gratitude List/Mental Subtraction Task | -0.94 | 280.92 | 0.35 | -0.11 |
| 5) Gratitude List/Gratitude to God List | -0.18 | 291.48 | 0.86 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | -0.35 | 285.30 | 0.73 | -0.04 |
| 7) Gratitude Letter/Gratitude Text | -0.33 | 273.66 | 0.74 | -0.04 |
| 8) Gratitude Letter/Naikan Gratitude List | -0.94 | 283.98 | 0.35 | -0.11 |
| 9) Gratitude Letter/Mental Subtraction Task | -1.41 | 275.04 | 0.16 | -0.17 |
| 10) Gratitude Letter/Gratitude to God List | -0.65 | 285.12 | 0.51 | -0.08 |
| 11) Gratitude Letter/Gratitude to God Letter | -0.82 | 278.98 | 0.41 | -0.10 |
| 12) Gratitude Text/Naikan Gratitude List | -0.57 | 274.13 | 0.57 | -0.07 |
| 13) Gratitude Text/Mental Subtraction Task | -1.03 | 271.86 | 0.31 | -0.12 |
| 14) Gratitude Text/Gratitude to God List | -0.31 | 280.43 | 0.76 | -0.04 |
| 15) Gratitude Text/Gratitude to God Letter | -0.46 | 274.53 | 0.64 | -0.06 |
| 16) Naikan Gratitude List/Mental Subtraction Task | -0.50 | 275.44 | 0.62 | -0.06 |
| 17) Naikan Gratitude List/Gratitude to God List | 0.25 | 285.44 | 0.80 | 0.03 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.09 | 279.31 | 0.93 | 0.01 |
| 19) Mental Subtraction Task/Gratitude to God List | 0.72 | 280.86 | 0.47 | 0.09 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 0.57 | 274.90 | 0.57 | 0.07 |
| 21) Gratitude to God List/Gratitude to God Letter | 0.57 | 274.90 | 0.57 | 0.07 |

**Table 62**

*Results comparing Attitude towards Life between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | P | Hedges’ g |
| 1) No Treatment Control/Events List | 0.34 | 290.93 | 0.74 | 0.04 |
| 2) No Treatment Control/Interesting Events List | -1.70 | 290.99 | 0.09 | -0.20 |
| 3) No Treatment Control/Hassles List | 0.51 | 295.81 | 0.61 | 0.06 |
| 4) Events List /Interesting Events List | -2.07 | 279.87 | 0.04 | -0.25 |
| 5) Events List /Hassles List | 0.17 | 284.97 | 0.86 | 0.02 |
| 6) Interesting Events List/Hassles List | 2.21 | 284.71 | 0.03 | 0.26 |

## Perceived Self-Size

**Table 63**

*Results comparing Perceived Self-Size between Control Conditions and Gratitude Interventions*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Control Condition | Gratitude Intervention | t | df | p | Hedges’ g |
|  | 1) Gratitude List | -1.23 | 301.71 | 0.22 | -0.14 |
|  | 2) Gratitude Letter | 0.07 | 293.00 | 0.94 | 0.01 |
|  | 3) Gratitude Text | -1.50 | 281.48 | 0.14 | -0.18 |
| 1) No Treatment Control | 4) Naikan Gratitude List | -0.95 | 291.85 | 0.34 | -0.11 |
|  | 5) Mental Subtraction Task | -1.50 | 283.26 | 0.14 | -0.18 |
|  | 6) Gratitude to God List | -1.50 | 283.26 | 0.14 | -0.07 |
|  | 7) Gratitude to God Letter | -0.41 | 289.82 | 0.68 | -0.05 |
|  | 1) Gratitude List | -1.53 | 290.54 | 0.13 | -0.18 |
|  | 2) Gratitude Letter | -0.21 | 281.96 | 0.84 | -0.02 |
|  | 3) Gratitude Text | -1.78 | 271.38 | 0.08 | -0.21 |
| 2) Events List | 4) Naikan Gratitude List | -1.25 | 280.54 | 0.21 | -0.15 |
|  | 5) Mental Subtraction Task | -1.78 | 272.96 | 0.08 | -0.21 |
|  | 6) Gratitude to God List | -0.88 | 284.85 | 0.38 | -0.10 |
|  | 7) Gratitude to God Letter | -0.69 | 278.93 | 0.49 | -0.08 |
|  | 1) Gratitude List | -0.05 | 288.98 | 0.96 | -0.01 |
|  | 2) Gratitude Letter | 1.24 | 281.12 | 0.22 | 0.15 |
|  | 3) Gratitude Text | -0.39 | 273.91 | 0.70 | -0.05 |
| 3) Interesting Events List | 4) Naikan Gratitude List | 0.26 | 278.29 | 0.80 | 0.03 |
|  | 5) Mental Subtraction Task | -0.38 | 274.94 | 0.71 | -0.05 |
|  | 6) Gratitude to God List | 0.54 | 284.88 | 0.59 | 0.06 |
|  | 7) Gratitude to God Letter | 0.75 | 278.78 | 0.46 | 0.09 |
|  | 1) Gratitude List | -0.33 | 294.57 | 0.74 | -0.04 |
|  | 2) Gratitude Letter | 0.96 | 286.49 | 0.34 | 0.11 |
|  | 3) Gratitude Text | -0.65 | 278.16 | 0.52 | -0.08 |
| 2) Hassles List | 4) Naikan Gratitude List | -0.02 | 284.06 | 0.98 | 0.00 |
|  | 5) Mental Subtraction Task | -0.64 | 279.39 | 0.53 | -0.08 |
|  | 6) Gratitude to God List | 0.28 | 289.99 | 0.78 | 0.03 |
|  | 7) Gratitude to God Letter | 0.48 | 283.94 | 0.63 | 0.06 |

**Table 64**

*Results comparing Perceived Self-Size between Gratitude Interventions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gratitude Intervention | t | df | p | Hedges’ g |
| 1) Gratitude List/Gratitude Letter | 1.32 | 292.78 | 0.19 | 0.15 |
| 2) Gratitude List/Gratitude Text | -0.35 | 278.89 | 0.73 | -0.04 |
| 3) Gratitude List/Naikan Gratitude List | 0.32 | 292.70 | 0.75 | 0.04 |
| 4) Gratitude List/Mental Subtraction Task | -0.33 | 281.05 | 0.74 | -0.04 |
| 5) Gratitude List/Gratitude to God List | 0.61 | 294.82 | 0.54 | 0.00 |
| 6) Gratitude List/Gratitude to God Letter | 0.82 | 289.11 | 0.41 | 0.10 |
| 7) Gratitude Letter/Gratitude Text | -1.59 | 272.44 | 0.11 | -0.19 |
| 8) Gratitude Letter/Naikan Gratitude List | -1.04 | 282.99 | 0.30 | -0.12 |
| 9) Gratitude Letter/Mental Subtraction Task | -1.59 | 274.19 | 0.11 | -0.19 |
| 10) Gratitude Letter/Gratitude to God List | -0.68 | 286.63 | 0.49 | -0.08 |
| 11) Gratitude Letter/Gratitude to God Letter | -0.49 | 280.78 | 0.62 | -0.06 |
| 12) Gratitude Text/Naikan Gratitude List | 0.66 | 267.17 | 0.51 | 0.08 |
| 13) Gratitude Text/Mental Subtraction Task | 0.02 | 271.83 | 0.98 | 0.00 |
| 14) Gratitude Text/Gratitude to God List | 0.91 | 277.78 | 0.36 | 0.11 |
| 15) Gratitude Text/Gratitude to God Letter | 1.12 | 271.40 | 0.27 | 0.13 |
| 16) Naikan Gratitude List/Mental Subtraction Task | -0.65 | 269.58 | 0.52 | -0.08 |
| 17) Naikan Gratitude List/Gratitude to God List | 0.31 | 284.43 | 0.76 | 0.04 |
| 18) Naikan Gratitude List/Gratitude to God Letter | 0.53 | 278.86 | 0.60 | 0.06 |
| 19) Mental Subtraction Task/Gratitude to God List | 0.91 | 279.10 | 0.37 | 0.11 |
| 20) Mental Subtraction Task/Gratitude to God Letter | 1.11 | 272.79 | 0.27 | 0.13 |
| 21) Gratitude to God List/Gratitude to God Letter | 1.11 | 272.79 | 0.27 | 0.13 |

**Table 65**

*Results comparing Perceived Self-Size between Control Conditions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Control Condition | t | df | P | Hedges’ g |
| 1) No Treatment Control/Events List | 0.28 | 290.98 | 0.78 | 0.03 |
| 2) No Treatment Control/Interesting Events List | -1.14 | 290.19 | 0.25 | -0.13 |
| 3) No Treatment Control/Hassles List | -0.88 | 295.55 | 0.38 | -0.10 |
| 4) Events List /Interesting Events List | -1.44 | 279.47 | 0.15 | -0.17 |
| 5) Events List /Hassles List | -1.16 | 284.75 | 0.25 | -0.14 |
| 6) Interesting Events List/Hassles List | 0.27 | 284.95 | 0.79 | 0.03 |

# **Figures and Results**

## Self-Reported Optimism

**Figure 1**

## Self-Reported Indebtedness

**Figure 1**

## Self-Reported Guilt

## Self-Reported Envy

## Satisfaction with Life

## Social Connection

## Attitude Towards Life

## Perceived Self-Size

## Perceived Self-Size