**Supplementary materials**

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**Supplementary materials**

# Descriptive statistics

Table 1

| strength | N studies | N samples | k | N | Sample Size | CS short | CS long | CS other | Wellbeing | MentalHealt | Clinical | Youth | Adult | Old |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation\_of\_beauty | 92 | 112 | 206 | 193916 | [32; 56998] | 97 | 109 | 0 | 169 | 37 | 12 | 40 | 160 | 6 |
| Bravery | 93 | 113 | 201 | 194235 | [26; 56998] | 97 | 102 | 2 | 165 | 36 | 8 | 40 | 155 | 6 |
| Creativity | 95 | 115 | 207 | 196142 | [32; 56998] | 104 | 103 | 0 | 167 | 40 | 10 | 40 | 161 | 6 |
| Curiosity | 96 | 115 | 211 | 196450 | [32; 56998] | 104 | 107 | 0 | 174 | 37 | 8 | 40 | 166 | 5 |
| Fairness | 91 | 110 | 199 | 193138 | [32; 56998] | 97 | 102 | 0 | 165 | 34 | 8 | 41 | 152 | 6 |
| Forgiveness | 98 | 119 | 216 | 196010 | [32; 56998] | 102 | 114 | 0 | 174 | 42 | 15 | 47 | 162 | 7 |
| Gratitude | 104 | 125 | 231 | 212430 | [26; 56998] | 110 | 119 | 2 | 189 | 42 | 13 | 43 | 176 | 12 |
| Honesty | 92 | 111 | 199 | 194199 | [32; 56998] | 97 | 102 | 0 | 163 | 36 | 8 | 40 | 153 | 6 |
| Hope | 101 | 121 | 224 | 238842 | [32; 56998] | 108 | 116 | 0 | 183 | 41 | 14 | 43 | 175 | 6 |
| Humility | 93 | 112 | 204 | 237322 | [32; 56998] | 101 | 103 | 0 | 169 | 35 | 12 | 44 | 154 | 6 |
| Humor | 97 | 118 | 221 | 238185 | [32; 56998] | 101 | 120 | 0 | 184 | 37 | 17 | 44 | 171 | 6 |
| Judgment | 93 | 112 | 201 | 195537 | [32; 56998] | 97 | 104 | 0 | 163 | 38 | 10 | 40 | 155 | 6 |
| Kindness | 98 | 117 | 209 | 197301 | [32; 56998] | 103 | 104 | 2 | 173 | 36 | 12 | 46 | 157 | 6 |
| Leadership | 92 | 111 | 202 | 194570 | [32; 56998] | 102 | 100 | 0 | 167 | 35 | 12 | 45 | 151 | 6 |
| Love\_of\_learning | 95 | 115 | 208 | 196136 | [26; 56998] | 99 | 107 | 2 | 171 | 37 | 8 | 40 | 162 | 6 |
| Love | 96 | 116 | 212 | 194942 | [26; 56998] | 107 | 103 | 2 | 177 | 35 | 14 | 46 | 160 | 6 |
| Perseverance | 93 | 112 | 203 | 194361 | [32; 56998] | 98 | 105 | 0 | 166 | 37 | 11 | 42 | 155 | 6 |
| Perspective | 93 | 112 | 202 | 195402 | [32; 56998] | 97 | 105 | 0 | 165 | 37 | 11 | 40 | 156 | 6 |
| Prudence | 90 | 109 | 197 | 193610 | [32; 56998] | 97 | 100 | 0 | 162 | 35 | 8 | 40 | 151 | 6 |
| Self\_regulation | 93 | 113 | 205 | 193949 | [26; 56998] | 97 | 106 | 2 | 168 | 37 | 11 | 40 | 159 | 6 |
| Social\_intelligence | 96 | 116 | 213 | 196471 | [32; 56998] | 106 | 107 | 0 | 176 | 37 | 16 | 44 | 163 | 6 |
| Spirituality | 93 | 113 | 208 | 194116 | [32; 56998] | 97 | 111 | 0 | 170 | 38 | 14 | 40 | 162 | 6 |
| Teamwork | 93 | 112 | 203 | 194873 | [32; 56998] | 102 | 101 | 0 | 168 | 35 | 12 | 45 | 152 | 6 |
| Zest | 97 | 116 | 213 | 204403 | [32; 56998] | 103 | 109 | 1 | 176 | 37 | 15 | 42 | 165 | 6 |
| CVQ\_cautiousness | 8 | 8 | 13 | 3448 | [95; 716] | 1 | 0 | 12 | 3 | 10 | 1 | 1 | 12 | 0 |
| CVQ\_interpersonal | 8 | 8 | 13 | 3448 | [95; 716] | 1 | 0 | 12 | 3 | 10 | 1 | 1 | 12 | 0 |
| CVQ\_vitality | 8 | 8 | 13 | 3448 | [95; 716] | 1 | 0 | 12 | 3 | 10 | 1 | 1 | 12 | 0 |
| Caring | 10 | 11 | 22 | 10178 | [162; 4238] | 7 | 1 | 14 | 10 | 12 | 7 | 2 | 20 | 0 |
| Inquisitiveness | 10 | 11 | 22 | 10178 | [162; 4238] | 7 | 1 | 14 | 10 | 12 | 7 | 2 | 20 | 0 |
| Self-control | 10 | 11 | 22 | 10178 | [162; 4238] | 7 | 1 | 14 | 10 | 12 | 7 | 2 | 20 | 0 |
| FullSample | 130 | 154 | 4995 | 275007 | [26; 56998] | 2423 | 2559 | 13 | 4104 | 891 | 279 | 1012 | 3833 | 150 |

# Detailed results on mental health vs well-being moderator analysis

Table 2  
*Moderator analysis testing for differences between mental health (MH) and well-being (WB) outcomes*

| Strength | r MH | N MH | k MH | r WB | N WB | k WB | delta r | delta CI | se | z | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 0.049 [0.024; 0.075] | 30,000 | 37 | 0.152 [0.133; 0.171] | 267,966 | 169 | 0.104\* | [ 0.083; 0.124] | 0.011 | 9.760 | 0.007 | 1876.741\* | 95.250\* |
| Bravery | 0.140 [0.112; 0.168] | 29,977 | 36 | 0.220 [0.198; 0.242] | 267,186 | 165 | 0.082\* | [ 0.061; 0.104] | 0.011 | 7.514 | 0.011 | 2781.526\* | 56.466\* |
| Creativity | 0.092 [0.066; 0.118] | 32,425 | 40 | 0.195 [0.176; 0.214] | 267,746 | 167 | 0.105\* | [ 0.084; 0.126] | 0.011 | 9.835 | 0.008 | 3516.879\* | 96.736\* |
| Curiosity | 0.215 [0.185; 0.245] | 31,432 | 37 | 0.326 [0.303; 0.349] | 270,846 | 174 | 0.120\* | [ 0.098; 0.141] | 0.011 | 10.846 | 0.015 | 4103.610\* | 117.633\* |
| Fairness | 0.115 [0.092; 0.137] | 28,645 | 34 | 0.176 [0.163; 0.190] | 267,705 | 165 | 0.063\* | [ 0.042; 0.083] | 0.011 | 5.956 | 0.006 | 1149.414\* | 35.469\* |
| Forgiveness | 0.175 [0.152; 0.196] | 31,394 | 42 | 0.211 [0.196; 0.227] | 271,077 | 174 | 0.038\* | [ 0.018; 0.058] | 0.010 | 3.736 | 0.005 | 1109.798\* | 13.961\* |
| Gratitude | 0.251 [0.223; 0.278] | 31,727 | 42 | 0.370 [0.350; 0.390] | 289,831 | 189 | 0.132\* | [ 0.111; 0.152] | 0.011 | 12.614 | 0.013 | 5177.542\* | 159.119\* |
| Honesty | 0.164 [0.137; 0.191] | 29,977 | 36 | 0.226 [0.205; 0.247] | 267,124 | 163 | 0.064\* | [ 0.043; 0.085] | 0.011 | 5.874 | 0.009 | 2148.538\* | 34.506\* |
| Hope | 0.396 [0.362; 0.428] | 31,472 | 41 | 0.465 [0.437; 0.492] | 313,160 | 183 | 0.085\* | [ 0.063; 0.107] | 0.011 | 7.672 | 0.031 | 7128.935\* | 58.854\* |
| Humility | 0.045 [0.021; 0.069] | 29,705 | 35 | 0.060 [0.044; 0.077] | 312,427 | 169 | 0.015 | [-0.006; 0.036] | 0.011 | 1.423 | 0.005 | 1779.295\* | 2.025 |
| Humor | 0.169 [0.143; 0.195] | 30,000 | 37 | 0.241 [0.222; 0.260] | 316,424 | 184 | 0.075\* | [ 0.054; 0.096] | 0.011 | 6.932 | 0.009 | 2610.984\* | 48.054\* |
| Judgment | 0.134 [0.108; 0.161] | 31,632 | 38 | 0.177 [0.157; 0.197] | 267,007 | 163 | 0.043\* | [ 0.022; 0.064] | 0.011 | 4.044 | 0.008 | 2251.728\* | 16.354\* |
| Kindness | 0.113 [0.085; 0.140] | 29,977 | 36 | 0.213 [0.192; 0.233] | 272,276 | 173 | 0.102\* | [ 0.081; 0.123] | 0.011 | 9.362 | 0.010 | 1855.444\* | 87.656\* |
| Leadership | 0.155 [0.131; 0.179] | 29,705 | 35 | 0.237 [0.220; 0.254] | 269,507 | 167 | 0.085\* | [ 0.064; 0.106] | 0.011 | 7.927 | 0.006 | 2005.695\* | 62.843\* |
| Love of learning | 0.158 [0.130; 0.185] | 31,432 | 37 | 0.205 [0.183; 0.226] | 269,943 | 171 | 0.049\* | [ 0.028; 0.070] | 0.011 | 4.476 | 0.011 | 3355.213\* | 20.031\* |
| Love | 0.275 [0.245; 0.304] | 29,705 | 35 | 0.358 [0.335; 0.381] | 270,610 | 177 | 0.092\* | [ 0.070; 0.114] | 0.011 | 8.263 | 0.015 | 4400.771\* | 68.281\* |
| Perseverance | 0.236 [0.210; 0.263] | 30,705 | 37 | 0.302 [0.282; 0.322] | 267,188 | 166 | 0.071\* | [ 0.049; 0.092] | 0.011 | 6.480 | 0.010 | 3270.691\* | 41.995\* |
| Perspective | 0.165 [0.138; 0.191] | 31,432 | 37 | 0.254 [0.234; 0.274] | 267,002 | 165 | 0.093\* | [ 0.072; 0.114] | 0.011 | 8.587 | 0.009 | 2652.845\* | 73.729\* |
| Prudence | 0.144 [0.116; 0.171] | 29,705 | 35 | 0.157 [0.135; 0.178] | 266,807 | 162 | 0.013 | [-0.008; 0.035] | 0.011 | 1.211 | 0.009 | 2125.283\* | 1.467 |
| Self regulation | 0.232 [0.207; 0.257] | 30,181 | 37 | 0.245 [0.226; 0.264] | 267,302 | 168 | 0.013 | [-0.008; 0.034] | 0.011 | 1.232 | 0.008 | 3412.153\* | 1.518 |
| Social intelligence | 0.192 [0.166; 0.219] | 31,312 | 37 | 0.275 [0.255; 0.295] | 274,687 | 176 | 0.087\* | [ 0.067; 0.107] | 0.010 | 8.516 | 0.010 | 2230.926\* | 72.529\* |
| Spirituality | 0.116 [0.090; 0.142] | 30,200 | 38 | 0.200 [0.181; 0.220] | 268,166 | 170 | 0.086\* | [ 0.065; 0.107] | 0.011 | 8.088 | 0.008 | 4855.399\* | 65.422\* |
| Teamwork | 0.186 [0.161; 0.212] | 29,705 | 35 | 0.246 [0.227; 0.264] | 269,810 | 168 | 0.062\* | [ 0.041; 0.083] | 0.011 | 5.726 | 0.008 | 1574.225\* | 32.782\* |
| Zest | 0.363 [0.330; 0.396] | 30,231 | 37 | 0.456 [0.429; 0.482] | 287,912 | 176 | 0.111\* | [ 0.089; 0.133] | 0.011 | 9.941 | 0.026 | 5762.106\* | 98.822\* |

# Detailed results on clinical vs non-clinical population (WB)

Table 3  
*Moderator analysis testing for differences between clinical and non-clinical population on WB outcomes*

| Strength | r clinical | N | k | r not clinical | N | k | delta r | delta CI | se | z | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 0.213 [0.105; 0.315] | 736 | 9 | 0.156 [0.137; 0.176] | 267,230 | 160 | -0.058\* | [-0.169; 0.054] | 0.057 | -1.019 | 0.006 | 1545.426\* | 1.039 |
| Bravery | 0.127 [-0.014; 0.262] | 541 | 6 | 0.236 [0.214; 0.257] | 266,645 | 159 | 0.112\* | [-0.030; 0.251] | 0.073 | 1.544 | 0.009 | 2378.246\* | 2.385 |
| Creativity | 0.189 [0.084; 0.289] | 835 | 8 | 0.2 [0.178; 0.221] | 266,911 | 159 | 0.012\* | [-0.096; 0.118] | 0.055 | 0.210 | 0.009 | 3056.944\* | 0.044 |
| Curiosity | 0.254 [0.092; 0.403] | 541 | 6 | 0.328 [0.302; 0.354] | 270,305 | 168 | 0.081\* | [-0.089; 0.246] | 0.087 | 0.935 | 0.017 | 3747.449\* | 0.875 |
| Fairness | 0.165 [0.041; 0.284] | 541 | 6 | 0.188 [0.17; 0.206] | 267,164 | 159 | 0.024\* | [-0.103; 0.149] | 0.065 | 0.366 | 0.006 | 887.618\* | 0.134 |
| Forgiveness | 0.228 [0.144; 0.308] | 3,061 | 11 | 0.212 [0.195; 0.23] | 268,016 | 163 | -0.016\* | [-0.104; 0.073] | 0.045 | -0.351 | 0.006 | 892.563\* | 0.123 |
| Gratitude | 0.296 [0.177; 0.407] | 839 | 9 | 0.375 [0.352; 0.398] | 288,992 | 180 | 0.088\* | [-0.041; 0.215] | 0.066 | 1.344 | 0.015 | 4614.118\* | 1.806 |
| Honesty | 0.173 [0.044; 0.297] | 541 | 6 | 0.239 [0.219; 0.258] | 266,583 | 157 | 0.069\* | [-0.064; 0.199] | 0.068 | 1.018 | 0.007 | 1779.311\* | 1.037 |
| Hope | 0.365 [0.21; 0.502] | 936 | 10 | 0.479 [0.447; 0.509] | 312,224 | 173 | 0.138\* | [-0.035; 0.303] | 0.089 | 1.565 | 0.035 | 6410.363\* | 2.448 |
| Humility | 0.136 [0.041; 0.229] | 2,861 | 10 | 0.062 [0.044; 0.08] | 309,566 | 159 | -0.075 | [-0.171; 0.023] | 0.050 | -1.497 | 0.006 | 1647.152\* | 2.240 |
| Humor | 0.234 [0.141; 0.322] | 3,089 | 14 | 0.249 [0.229; 0.269] | 313,335 | 170 | 0.017\* | [-0.082; 0.115] | 0.050 | 0.330 | 0.008 | 2304.208\* | 0.109 |
| Judgment | 0.146 [0.029; 0.26] | 741 | 7 | 0.184 [0.161; 0.205] | 266,266 | 156 | 0.038\* | [-0.082; 0.157] | 0.061 | 0.623 | 0.009 | 1927.603\* | 0.388 |
| Kindness | 0.271 [0.157; 0.377] | 2,861 | 10 | 0.22 [0.198; 0.243] | 269,415 | 163 | -0.053\* | [-0.173; 0.068] | 0.062 | -0.864 | 0.010 | 1566.264\* | 0.746 |
| Leadership | 0.245 [0.152; 0.333] | 2,861 | 10 | 0.241 [0.223; 0.259] | 266,646 | 157 | -0.004\* | [-0.102; 0.094] | 0.050 | -0.079 | 0.006 | 1659.616\* | 0.006 |
| Love of learning | 0.175 [0.027; 0.315] | 541 | 6 | 0.209 [0.185; 0.232] | 269,402 | 165 | 0.035\* | [-0.116; 0.185] | 0.077 | 0.454 | 0.011 | 2927.249\* | 0.207 |
| Love | 0.34 [0.224; 0.446] | 2,959 | 12 | 0.364 [0.339; 0.389] | 267,651 | 165 | 0.028\* | [-0.102; 0.156] | 0.066 | 0.418 | 0.016 | 3534.890\* | 0.175 |
| Perseverance | 0.295 [0.177; 0.405] | 736 | 9 | 0.305 [0.283; 0.327] | 266,452 | 157 | 0.011\* | [-0.116; 0.137] | 0.065 | 0.169 | 0.010 | 2884.703\* | 0.028 |
| Perspective | 0.259 [0.143; 0.368] | 736 | 9 | 0.266 [0.244; 0.287] | 266,266 | 156 | 0.007\* | [-0.116; 0.130] | 0.063 | 0.116 | 0.009 | 2306.838\* | 0.014 |
| Prudence | 0.136 [-0.001; 0.269] | 541 | 6 | 0.16 [0.138; 0.182] | 266,266 | 156 | 0.025 | [-0.115; 0.163] | 0.072 | 0.345 | 0.009 | 1535.270\* | 0.119 |
| Self regulation | 0.238 [0.126; 0.343] | 736 | 9 | 0.25 [0.23; 0.27] | 266,566 | 159 | 0.013 | [-0.103; 0.130] | 0.060 | 0.225 | 0.008 | 3019.271\* | 0.051 |
| Social intelligence | 0.257 [0.172; 0.338] | 3,355 | 13 | 0.286 [0.265; 0.306] | 271,332 | 163 | 0.031\* | [-0.060; 0.121] | 0.046 | 0.666 | 0.009 | 1709.413\* | 0.443 |
| Spirituality | 0.162 [0.059; 0.261] | 936 | 10 | 0.202 [0.181; 0.223] | 267,230 | 160 | 0.042\* | [-0.065; 0.147] | 0.054 | 0.771 | 0.008 | 4473.693\* | 0.594 |
| Teamwork | 0.276 [0.181; 0.367] | 2,861 | 10 | 0.251 [0.233; 0.27] | 266,949 | 158 | -0.027\* | [-0.129; 0.076] | 0.053 | -0.510 | 0.007 | 1177.968\* | 0.260 |
| Zest | 0.324 [0.185; 0.451] | 1,034 | 12 | 0.457 [0.426; 0.488] | 286,878 | 164 | 0.156\* | [ 0.003; 0.302] | 0.079 | 1.998 | 0.031 | 4831.587\* | 3.991 |

# Detailed results on short vs long VIA formats (WB)

Table 4  
*Moderator analysis testing for differences between short and long VIA formats on WB outcomes*

| Strength | r long | N | k | r short | N | k | delta r | delta CI | se | z | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 0.164 [0.142; 0.185] | 132,486 | 100 | 0.148 [0.123; 0.173] | 135,480 | 69 | -0.016 | [-0.040; 0.008] | 0.012 | -1.307 | 0.007 | 1481.047\* | 1.709 |
| Bravery | 0.237 [0.214; 0.259] | 131,644 | 94 | 0.221 [0.195; 0.247] | 135,480 | 69 | -0.016 | [-0.041; 0.009] | 0.013 | -1.260 | 0.009 | 2330.102\* | 1.589 |
| Creativity | 0.201 [0.177; 0.224] | 131,630 | 94 | 0.197 [0.171; 0.223] | 136,116 | 73 | -0.004 | [-0.028; 0.021] | 0.012 | -0.297 | 0.009 | 2578.919\* | 0.088 |
| Curiosity | 0.344 [0.317; 0.372] | 133,907 | 98 | 0.296 [0.265; 0.326] | 136,939 | 76 | -0.054\* | [-0.081; -0.027] | 0.014 | -3.920 | 0.017 | 3747.610\* | 15.369\* |
| Fairness | 0.188 [0.168; 0.208] | 131,845 | 95 | 0.186 [0.163; 0.209] | 135,860 | 70 | -0.002 | [-0.025; 0.021] | 0.012 | -0.171 | 0.006 | 818.375\* | 0.029 |
| Forgiveness | 0.215 [0.196; 0.234] | 132,897 | 100 | 0.21 [0.188; 0.232] | 138,180 | 74 | -0.005 | [-0.029; 0.018] | 0.012 | -0.433 | 0.006 | 920.616\* | 0.188 |
| Gratitude | 0.364 [0.34; 0.389] | 150,549 | 108 | 0.38 [0.354; 0.406] | 139,220 | 79 | 0.018 | [-0.007; 0.044] | 0.013 | 1.415 | 0.015 | 4302.989\* | 2.002 |
| Honesty | 0.243 [0.222; 0.265] | 131,644 | 94 | 0.227 [0.203; 0.252] | 135,480 | 69 | -0.017 | [-0.041; 0.007] | 0.012 | -1.374 | 0.007 | 1465.742\* | 1.887 |
| Hope | 0.469 [0.437; 0.501] | 175,967 | 103 | 0.48 [0.446; 0.513] | 137,193 | 80 | 0.014 | [-0.015; 0.042] | 0.015 | 0.934 | 0.035 | 6436.417\* | 0.872 |
| Humility | 0.067 [0.047; 0.088] | 174,627 | 96 | 0.06 [0.036; 0.083] | 137,800 | 73 | -0.008 | [-0.032; 0.016] | 0.012 | -0.640 | 0.006 | 1163.076\* | 0.409 |
| Humor | 0.273 [0.252; 0.294] | 178,624 | 111 | 0.203 [0.177; 0.227] | 137,800 | 73 | -0.075\* | [-0.099; -0.051] | 0.012 | -6.088 | 0.008 | 1652.281\* | 37.061\* |
| Judgment | 0.193 [0.169; 0.216] | 131,527 | 94 | 0.164 [0.139; 0.19] | 135,480 | 69 | -0.029\* | [-0.050; -0.008] | 0.011 | -2.687 | 0.009 | 1856.884\* | 7.222\* |
| Kindness | 0.224 [0.201; 0.246] | 132,264 | 96 | 0.204 [0.179; 0.23] | 138,375 | 75 | -0.020 | [-0.045; 0.005] | 0.013 | -1.578 | 0.009 | 1437.624\* | 2.489 |
| Leadership | 0.253 [0.233; 0.273] | 131,327 | 93 | 0.222 [0.199; 0.244] | 138,180 | 74 | -0.033\* | [-0.056; -0.009] | 0.012 | -2.742 | 0.006 | 1645.168\* | 7.517\* |
| Love of learning | 0.225 [0.199; 0.251] | 133,907 | 98 | 0.176 [0.146; 0.205] | 135,974 | 71 | -0.052\* | [-0.078; -0.025] | 0.013 | -3.856 | 0.012 | 2840.249\* | 14.869\* |
| Love | 0.361 [0.334; 0.386] | 131,742 | 96 | 0.364 [0.335; 0.391] | 138,806 | 79 | 0.003 | [-0.023; 0.030] | 0.014 | 0.252 | 0.015 | 3581.524\* | 0.064 |
| Perseverance | 0.31 [0.287; 0.333] | 131,522 | 96 | 0.296 [0.269; 0.322] | 135,666 | 70 | -0.016 | [-0.042; 0.009] | 0.013 | -1.247 | 0.010 | 2855.072\* | 1.555 |
| Perspective | 0.287 [0.265; 0.31] | 131,522 | 96 | 0.228 [0.202; 0.253] | 135,480 | 69 | -0.064\* | [-0.087; -0.040] | 0.012 | -5.260 | 0.009 | 2245.139\* | 27.665\* |
| Prudence | 0.168 [0.144; 0.192] | 131,327 | 93 | 0.147 [0.12; 0.174] | 135,480 | 69 | -0.021 | [-0.047; 0.004] | 0.013 | -1.657 | 0.009 | 1355.696\* | 2.747 |
| Self regulation | 0.265 [0.243; 0.286] | 131,760 | 97 | 0.221 [0.195; 0.246] | 135,480 | 69 | -0.047\* | [-0.071; -0.022] | 0.013 | -3.739 | 0.008 | 2941.797\* | 13.980\* |
| Social intelligence | 0.288 [0.266; 0.31] | 136,065 | 98 | 0.279 [0.254; 0.303] | 138,622 | 78 | -0.010 | [-0.035; 0.015] | 0.013 | -0.791 | 0.009 | 1746.220\* | 0.626 |
| Spirituality | 0.212 [0.189; 0.235] | 132,686 | 101 | 0.178 [0.151; 0.205] | 135,480 | 69 | -0.035\* | [-0.060; -0.010] | 0.013 | -2.751 | 0.009 | 3826.707\* | 7.569\* |
| Teamwork | 0.265 [0.244; 0.286] | 131,630 | 94 | 0.232 [0.208; 0.256] | 138,180 | 74 | -0.036\* | [-0.059; -0.012] | 0.012 | -2.966 | 0.007 | 1197.554\* | 8.795\* |
| Zest | 0.447 [0.414; 0.478] | 151,426 | 101 | 0.454 [0.42; 0.487] | 136,486 | 75 | 0.009 | [-0.019; 0.038] | 0.015 | 0.649 | 0.032 | 4874.354\* | 0.422 |

# Detailed results on specific well-being outcomes

Table 5  
*Moderator analysis testing for differences between specific WB outcomes*

| Strength | Domain satisfaction | Happyness | Life satisfaction | Negative affect | Positive affect | Psychological wellbeing | Subjective wellbeing | Overall effect | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 0.126 [0.090; 0.161] | 0.180 [0.144; 0.215] | 0.155 [0.133; 0.177] | 0.080 [ 0.053; 0.107] | 0.227 [0.202; 0.253] | 0.154 [0.127; 0.180] | 0.141 [ 0.060; 0.219] | 0.152 [0.133; 0.171] | 0.007 | 1876.741(204)\* | 95.250(1)\* |
| Bravery | 0.157 [0.120; 0.193] | 0.345 [0.312; 0.378] | 0.212 [0.189; 0.235] | 0.104 [ 0.076; 0.132] | 0.267 [0.241; 0.293] | 0.297 [0.271; 0.323] | 0.170 [ 0.089; 0.249] | 0.220 [0.198; 0.242] | 0.008 | 2781.526(199)\* | 56.466(1)\* |
| Creativity | 0.138 [0.102; 0.174] | 0.274 [0.239; 0.309] | 0.189 [0.165; 0.212] | 0.022 [-0.007; 0.051] | 0.303 [0.276; 0.328] | 0.253 [0.226; 0.280] | 0.144 [ 0.061; 0.224] | 0.195 [0.176; 0.214] | 0.008 | 3516.879(205)\* | 96.736(1)\* |
| Curiosity | 0.211 [0.171; 0.250] | 0.466 [0.433; 0.498] | 0.317 [0.291; 0.342] | 0.120 [ 0.088; 0.152] | 0.400 [0.373; 0.427] | 0.349 [0.320; 0.377] | 0.299 [ 0.217; 0.376] | 0.326 [0.303; 0.349] | 0.013 | 4103.610(209)\* | 117.633(1)\* |
| Fairness | 0.192 [0.157; 0.226] | 0.257 [0.223; 0.291] | 0.174 [0.152; 0.196] | 0.153 [ 0.126; 0.180] | 0.193 [0.167; 0.219] | 0.187 [0.161; 0.213] | 0.157 [ 0.077; 0.235] | 0.176 [0.163; 0.190] | 0.007 | 1149.414(197)\* | 35.469(1)\* |
| Forgiveness | 0.206 [0.172; 0.239] | 0.276 [0.243; 0.308] | 0.212 [0.191; 0.233] | 0.222 [ 0.197; 0.247] | 0.238 [0.213; 0.262] | 0.169 [0.143; 0.194] | 0.172 [ 0.093; 0.250] | 0.211 [0.196; 0.227] | 0.006 | 1109.798(214)\* | 13.961(1)\* |
| Gratitude | 0.258 [0.219; 0.297] | 0.448 [0.415; 0.481] | 0.416 [0.392; 0.439] | 0.189 [ 0.158; 0.219] | 0.371 [0.344; 0.398] | 0.359 [0.331; 0.386] | 0.335 [ 0.255; 0.411] | 0.370 [0.350; 0.390] | 0.014 | 5177.542(229)\* | 159.119(1)\* |
| Honesty | 0.173 [0.138; 0.207] | 0.284 [0.251; 0.316] | 0.224 [0.203; 0.245] | 0.130 [ 0.103; 0.156] | 0.235 [0.210; 0.259] | 0.311 [0.287; 0.335] | 0.216 [ 0.138; 0.291] | 0.226 [0.205; 0.247] | 0.006 | 2148.538(197)\* | 34.506(1)\* |
| Hope | 0.298 [0.253; 0.340] | 0.600 [0.569; 0.629] | 0.485 [0.457; 0.512] | 0.328 [ 0.293; 0.363] | 0.511 [0.482; 0.539] | 0.453 [0.422; 0.484] | 0.484 [ 0.409; 0.553] | 0.465 [0.437; 0.492] | 0.025 | 7128.935(222)\* | 58.854(1)\* |
| Humility | 0.096 [0.059; 0.132] | 0.075 [0.038; 0.111] | 0.076 [0.053; 0.098] | 0.041 [ 0.014; 0.069] | 0.043 [0.016; 0.070] | 0.050 [0.023; 0.078] | 0.053 [-0.029; 0.134] | 0.060 [0.044; 0.077] | 0.007 | 1779.295(202)\* | 2.025(1) |
| Humor | 0.206 [0.172; 0.240] | 0.382 [0.351; 0.412] | 0.234 [0.213; 0.254] | 0.108 [ 0.082; 0.133] | 0.282 [0.259; 0.305] | 0.274 [0.250; 0.298] | 0.252 [ 0.176; 0.326] | 0.241 [0.222; 0.260] | 0.006 | 2610.984(219)\* | 48.054(1)\* |
| Judgment | 0.156 [0.119; 0.193] | 0.217 [0.181; 0.253] | 0.176 [0.151; 0.200] | 0.057 [ 0.028; 0.087] | 0.233 [0.206; 0.261] | 0.232 [0.204; 0.260] | 0.138 [ 0.055; 0.219] | 0.177 [0.157; 0.197] | 0.009 | 2251.728(199)\* | 16.354(1)\* |
| Kindness | 0.201 [0.164; 0.237] | 0.273 [0.236; 0.308] | 0.207 [0.183; 0.230] | 0.091 [ 0.062; 0.120] | 0.234 [0.207; 0.261] | 0.260 [0.233; 0.286] | 0.181 [ 0.099; 0.261] | 0.213 [0.192; 0.233] | 0.009 | 1855.444(207)\* | 87.656(1)\* |
| Leadership | 0.184 [0.184; 0.184] | 0.304 [0.277; 0.331] | 0.238 [0.223; 0.253] | 0.119 [ 0.096; 0.141] | 0.282 [0.262; 0.302] | 0.285 [0.265; 0.305] | 0.185 [ 0.112; 0.255] | 0.237 [0.220; 0.254] | 0.003 | 2005.695(200)\* | 62.843(1)\* |
| Love of learning | 0.207 [0.168; 0.245] | 0.300 [0.264; 0.336] | 0.177 [0.150; 0.203] | 0.133 [ 0.102; 0.164] | 0.277 [0.249; 0.305] | 0.219 [0.189; 0.248] | 0.173 [ 0.088; 0.255] | 0.205 [0.183; 0.226] | 0.012 | 3355.213(206)\* | 20.031(1)\* |
| Love | 0.313 [0.277; 0.349] | 0.418 [0.385; 0.450] | 0.387 [0.365; 0.409] | 0.163 [ 0.133; 0.192] | 0.328 [0.301; 0.354] | 0.383 [0.357; 0.408] | 0.370 [ 0.294; 0.441] | 0.358 [0.335; 0.381] | 0.011 | 4400.771(210)\* | 68.281(1)\* |
| Perseverance | 0.225 [0.188; 0.261] | 0.361 [0.327; 0.394] | 0.310 [0.287; 0.333] | 0.160 [ 0.130; 0.189] | 0.340 [0.314; 0.366] | 0.354 [0.328; 0.380] | 0.251 [ 0.170; 0.329] | 0.302 [0.282; 0.322] | 0.009 | 3270.691(201)\* | 41.995(1)\* |
| Perspective | 0.179 [0.142; 0.216] | 0.332 [0.297; 0.365] | 0.271 [0.247; 0.294] | 0.115 [ 0.086; 0.144] | 0.326 [0.300; 0.352] | 0.308 [0.281; 0.335] | 0.220 [ 0.139; 0.298] | 0.254 [0.234; 0.274] | 0.009 | 2652.845(200)\* | 73.729(1)\* |
| Prudence | 0.140 [0.102; 0.178] | 0.163 [0.125; 0.201] | 0.172 [0.147; 0.197] | 0.101 [ 0.071; 0.131] | 0.163 [0.134; 0.192] | 0.180 [0.150; 0.208] | 0.078 [-0.007; 0.161] | 0.157 [0.135; 0.178] | 0.009 | 2125.283(195)\* | 1.467(1) |
| Self regulation | 0.155 [0.119; 0.191] | 0.274 [0.240; 0.308] | 0.269 [0.247; 0.290] | 0.227 [ 0.201; 0.254] | 0.284 [0.259; 0.309] | 0.255 [0.229; 0.281] | 0.165 [ 0.085; 0.244] | 0.245 [0.226; 0.264] | 0.007 | 3412.153(203)\* | 1.518(1) |
| Social intelligence | 0.216 [0.181; 0.250] | 0.367 [0.335; 0.399] | 0.278 [0.256; 0.299] | 0.138 [ 0.111; 0.164] | 0.335 [0.311; 0.358] | 0.326 [0.301; 0.350] | 0.242 [ 0.164; 0.318] | 0.275 [0.255; 0.295] | 0.007 | 2230.926(211)\* | 72.529(1)\* |
| Spirituality | 0.146 [0.109; 0.183] | 0.287 [0.252; 0.321] | 0.219 [0.195; 0.242] | 0.087 [ 0.058; 0.116] | 0.222 [0.195; 0.249] | 0.194 [0.166; 0.222] | 0.183 [ 0.101; 0.262] | 0.200 [0.181; 0.220] | 0.008 | 4855.399(206)\* | 65.422(1)\* |
| Teamwork | 0.245 [0.211; 0.278] | 0.282 [0.248; 0.316] | 0.251 [0.229; 0.272] | 0.163 [ 0.136; 0.190] | 0.248 [0.222; 0.273] | 0.274 [0.248; 0.299] | 0.240 [ 0.162; 0.315] | 0.246 [0.227; 0.264] | 0.007 | 1574.225(201)\* | 32.782(1)\* |
| Zest | 0.352 [0.314; 0.389] | 0.607 [0.575; 0.637] | 0.447 [0.416; 0.478] | 0.248 [ 0.208; 0.287] | 0.522 [0.491; 0.551] | 0.422 [0.387; 0.456] | 0.403 [ 0.320; 0.480] | 0.456 [0.429; 0.482] | 0.029 | 5762.106(211)\* | 98.822(1)\* |

# Detailed results on clinical vs non-clinical populations (MH)

Table 6  
*Moderator analysis testing for differences between clinical and non-clinical populations on MH outcomes*

| Strength | r MH | N MH | k MH | r WB | N WB | k WB | delta r | delta CI | se | z | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | -0.05 [-0.17; 0.07] | 1,302 | 3 | 0.03 [-0.01; 0.07] | 28,698 | 34 | 0.080 | [-0.043; 0.201] | 0.063 | 1.277 | 0.007 | 316.195\* | 1.630 |
| Bravery | 0 [-0.16; 0.16] | 1,248 | 2 | 0.12 [0.07; 0.17] | 28,729 | 34 | 0.119 | [-0.052; 0.283] | 0.088 | 1.360 | 0.012 | 376.350\* | 1.851 |
| Creativity | 0.02 [-0.11; 0.15] | 1,248 | 2 | 0.11 [0.08; 0.15] | 31,177 | 38 | 0.093 | [-0.038; 0.222] | 0.067 | 1.394 | 0.007 | 449.430\* | 1.943 |
| Curiosity | 0.23 [0.1; 0.35] | 1,248 | 2 | 0.21 [0.17; 0.24] | 30,184 | 35 | -0.025 | [-0.164; 0.115] | 0.072 | -0.352 | 0.008 | 350.378\* | 0.124 |
| Fairness | 0 [-0.12; 0.12] | 1,248 | 2 | 0.09 [0.05; 0.12] | 27,397 | 32 | 0.087 | [-0.038; 0.209] | 0.064 | 1.367 | 0.006 | 252.068\* | 1.870 |
| Forgiveness | 0.14 [0.05; 0.24] | 1,502 | 4 | 0.16 [0.13; 0.19] | 29,892 | 38 | 0.019 | [-0.081; 0.118] | 0.051 | 0.367 | 0.005 | 177.684\* | 0.135 |
| Gratitude | 0.16 [0.04; 0.28] | 1,502 | 4 | 0.26 [0.21; 0.3] | 30,225 | 38 | 0.101 | [-0.034; 0.232] | 0.069 | 1.465 | 0.013 | 526.271\* | 2.145 |
| Honesty | 0.14 [-0.06; 0.33] | 1,248 | 2 | 0.11 [0.05; 0.17] | 28,729 | 34 | -0.028 | [-0.232; 0.179] | 0.106 | -0.259 | 0.019 | 365.045\* | 0.067 |
| Hope | 0.31 [0.16; 0.45] | 1,502 | 4 | 0.37 [0.32; 0.42] | 29,970 | 37 | 0.066 | [-0.104; 0.233] | 0.087 | 0.759 | 0.022 | 671.131\* | 0.577 |
| Humility | 0 [-0.09; 0.09] | 1,248 | 2 | 0 [-0.02; 0.03] | 28,457 | 33 | 0.004 | [-0.086; 0.093] | 0.046 | 0.077 | 0.002 | 100.592\* | 0.006 |
| Humor | 0.01 [-0.12; 0.13] | 1,302 | 3 | 0.16 [0.12; 0.19] | 28,698 | 34 | 0.151 | [ 0.023; 0.274] | 0.066 | 2.316 | 0.008 | 268.692\* | 5.366 |
| Judgment | 0.17 [0.06; 0.27] | 1,448 | 3 | 0.11 [0.07; 0.15] | 30,184 | 35 | -0.064 | [-0.179; 0.053] | 0.060 | -1.069 | 0.007 | 320.848\* | 1.144 |
| Kindness | -0.04 [-0.16; 0.08] | 1,248 | 2 | 0.07 [0.03; 0.11] | 28,729 | 34 | 0.110 | [-0.015; 0.231] | 0.064 | 1.725 | 0.006 | 215.360\* | 2.977 |
| Leadership | 0.08 [-0.07; 0.23] | 1,248 | 2 | 0.15 [0.11; 0.19] | 28,457 | 33 | 0.069 | [-0.088; 0.223] | 0.080 | 0.862 | 0.010 | 338.076\* | 0.743 |
| Love of learning | 0.16 [0; 0.31] | 1,248 | 2 | 0.15 [0.1; 0.19] | 30,184 | 35 | -0.012 | [-0.174; 0.150] | 0.083 | -0.147 | 0.011 | 427.704\* | 0.022 |
| Love | 0.18 [-0.03; 0.38] | 1,248 | 2 | 0.26 [0.19; 0.32] | 28,457 | 33 | 0.078 | [-0.147; 0.296] | 0.116 | 0.679 | 0.023 | 796.924\* | 0.461 |
| Perseverance | 0.26 [0.1; 0.4] | 1,248 | 2 | 0.22 [0.17; 0.26] | 29,457 | 35 | -0.047 | [-0.214; 0.122] | 0.087 | -0.543 | 0.012 | 385.437\* | 0.295 |
| Perspective | -0.02 [-0.15; 0.11] | 1,248 | 2 | 0.15 [0.11; 0.18] | 30,184 | 35 | 0.165 | [ 0.032; 0.293] | 0.069 | 2.420 | 0.007 | 314.056\* | 5.854 |
| Prudence | 0.1 [-0.08; 0.28] | 1,248 | 2 | 0.11 [0.05; 0.17] | 28,457 | 33 | 0.013 | [-0.178; 0.202] | 0.098 | 0.128 | 0.016 | 585.947\* | 0.016 |
| Self regulation | 0.23 [0.07; 0.37] | 1,248 | 2 | 0.24 [0.23; 0.25] | 28,933 | 35 | 0.009 | [-0.150; 0.167] | 0.081 | 0.105 | 0.012 | 392.450\* | 0.011 |
| Social intelligence | 0.12 [-0.02; 0.26] | 1,448 | 3 | 0.17 [0.12; 0.22] | 29,864 | 34 | 0.049 | [-0.101; 0.197] | 0.077 | 0.641 | 0.013 | 480.730\* | 0.411 |
| Spirituality | 0.12 [0.01; 0.23] | 1,502 | 4 | 0.12 [0.08; 0.17] | 28,698 | 34 | -0.004 | [-0.123; 0.115] | 0.061 | -0.069 | 0.009 | 370.803\* | 0.005 |
| Teamwork | 0.06 [-0.08; 0.2] | 1,248 | 2 | 0.15 [0.1; 0.19] | 28,457 | 33 | 0.087 | [-0.064; 0.235] | 0.077 | 1.130 | 0.009 | 360.489\* | 1.277 |
| Zest | 0.4 [0.22; 0.55] | 1,448 | 3 | 0.38 [0.32; 0.44] | 28,783 | 34 | -0.020 | [-0.225; 0.188] | 0.107 | -0.182 | 0.027 | 885.156\* | 0.033 |

# Detailed results on short vs long VIA formats (MH)

Table 7  
*Moderator analysis testing for differences between short and long VIA formats on MH outcomes*

| Strength | r long | N | k | r short | N | k | delta r | delta CI | se | z | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 0.02 [-0.05; 0.09] | 8,148 | 9 | 0.02 [-0.03; 0.07] | 21,852 | 28 | 0.003\* | [-0.084; 0.091] | 0.045 | 0.076 | 0.008 | 309.345\* | 0.006 |
| Bravery | 0.1 [0.01; 0.19] | 8,125 | 8 | 0.11 [0.05; 0.17] | 21,852 | 28 | 0.009\* | [-0.101; 0.119] | 0.056 | 0.154 | 0.014 | 395.030\* | 0.024 |
| Creativity | 0.07 [0.01; 0.12] | 9,580 | 9 | 0.13 [0.09; 0.17] | 22,845 | 31 | 0.064\* | [-0.004; 0.132] | 0.035 | 1.842 | 0.007 | 407.474\* | 3.394 |
| Curiosity | 0.23 [0.16; 0.29] | 9,580 | 9 | 0.2 [0.15; 0.24] | 21,852 | 28 | -0.030\* | [-0.109; 0.049] | 0.041 | -0.752 | 0.007 | 308.861\* | 0.566 |
| Fairness | 0.07 [0; 0.14] | 7,853 | 7 | 0.08 [0.04; 0.12] | 20,792 | 27 | 0.011\* | [-0.069; 0.091] | 0.041 | 0.267 | 0.006 | 261.226\* | 0.071 |
| Forgiveness | 0.19 [0.15; 0.23] | 9,542 | 14 | 0.13 [0.12; 0.14] | 21,852 | 28 | -0.068\* | [-0.112; -0.024] | 0.022 | -3.045 | 0.005 | 171.521\* | 9.271\* |
| Gratitude | 0.21 [0.13; 0.28] | 8,708 | 11 | 0.27 [0.21; 0.32] | 23,019 | 31 | 0.062\* | [-0.037; 0.159] | 0.050 | 1.231 | 0.013 | 539.412\* | 1.515 |
| Honesty | 0.05 [-0.05; 0.15] | 8,125 | 8 | 0.15 [0.08; 0.22] | 21,852 | 28 | 0.103\* | [-0.019; 0.221] | 0.062 | 1.656 | 0.016 | 362.492\* | 2.743 |
| Hope | 0.32 [0.24; 0.39] | 9,620 | 13 | 0.41 [0.38; 0.44] | 21,852 | 28 | 0.109\* | [ 0.022; 0.195] | 0.045 | 2.443 | 0.020 | 672.510\* | 5.966 |
| Humility | -0.01 [-0.05; 0.04] | 7,853 | 7 | 0.01 [-0.01; 0.04] | 21,852 | 28 | 0.020\* | [-0.032; 0.071] | 0.026 | 0.749 | 0.002 | 93.642\* | 0.561 |
| Humor | 0.19 [0.12; 0.25] | 8,148 | 9 | 0.13 [0.13; 0.13] | 21,852 | 28 | -0.057\* | [-0.123; 0.009] | 0.034 | -1.685 | 0.009 | 303.011\* | 2.839 |
| Judgment | 0.13 [0.07; 0.19] | 9,780 | 10 | 0.1 [0.06; 0.15] | 21,852 | 28 | -0.023\* | [-0.101; 0.054] | 0.040 | -0.591 | 0.007 | 312.441\* | 0.350 |
| Kindness | 0.07 [0; 0.13] | 8,125 | 8 | 0.06 [0.01; 0.1] | 21,852 | 28 | -0.012\* | [-0.091; 0.068] | 0.040 | -0.286 | 0.007 | 227.166\* | 0.082 |
| Leadership | 0.11 [0.03; 0.19] | 7,853 | 7 | 0.16 [0.11; 0.2] | 21,852 | 28 | 0.048\* | [-0.045; 0.140] | 0.047 | 1.016 | 0.010 | 337.771\* | 1.033 |
| Love of learning | 0.15 [0.07; 0.22] | 9,580 | 9 | 0.15 [0.1; 0.2] | 21,852 | 28 | 0.004\* | [-0.090; 0.098] | 0.048 | 0.087 | 0.011 | 423.460\* | 0.008 |
| Love | 0.19 [0.07; 0.3] | 7,853 | 7 | 0.27 [0.2; 0.34] | 21,852 | 28 | 0.090\* | [-0.055; 0.230] | 0.074 | 1.219 | 0.021 | 811.155\* | 1.485 |
| Perseverance | 0.17 [0.09; 0.25] | 8,853 | 9 | 0.24 [0.19; 0.3] | 21,852 | 28 | 0.073\* | [-0.028; 0.172] | 0.052 | 1.414 | 0.011 | 383.695\* | 2.000 |
| Perspective | 0.16 [0.1; 0.23] | 9,580 | 9 | 0.11 [0.06; 0.16] | 21,852 | 28 | -0.053\* | [-0.136; 0.030] | 0.042 | -1.263 | 0.009 | 340.488\* | 1.596 |
| Prudence | 0.07 [-0.03; 0.17] | 7,853 | 7 | 0.13 [0.06; 0.19] | 21,852 | 28 | 0.058\* | [-0.065; 0.179] | 0.063 | 0.928 | 0.015 | 573.706\* | 0.861 |
| Self regulation | 0.19 [0.11; 0.27] | 8,329 | 9 | 0.22 [0.17; 0.28] | 21,852 | 28 | 0.038\* | [-0.063; 0.138] | 0.051 | 0.733 | 0.011 | 392.432\* | 0.538 |
| Social intelligence | 0.13 [0.05; 0.21] | 9,460 | 9 | 0.19 [0.13; 0.24] | 21,852 | 28 | 0.056\* | [-0.048; 0.158] | 0.053 | 1.057 | 0.013 | 482.404\* | 1.117 |
| Spirituality | 0.11 [0.04; 0.18] | 8,348 | 10 | 0.13 [0.07; 0.18] | 21,852 | 28 | 0.014\* | [-0.075; 0.104] | 0.046 | 0.315 | 0.009 | 369.683\* | 0.099 |
| Teamwork | 0.1 [0.01; 0.17] | 7,853 | 7 | 0.16 [0.1; 0.21] | 21,852 | 28 | 0.062\* | [-0.035; 0.159] | 0.050 | 1.253 | 0.009 | 351.751\* | 1.569 |
| Zest | 0.31 [0.21; 0.41] | 8,053 | 8 | 0.43 [0.36; 0.49] | 21,852 | 28 | 0.132\* | [-0.006; 0.265] | 0.071 | 1.879 | 0.023 | 854.484\* | 3.532 |

# Detailed results on specific mental health outcome

Table 8  
*Moderator analysis testing for differences between specific MH outcomes*

| Strength | Anxiety | Depression | General mental health | Stress | Overall effect | tau2 | Q | QM |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | -0.04 [-0.1; 0.01] | 0.02 [-0.02; 0.07] | 0.06 [-0.01; 0.12] | 0 [-0.06; 0.06] | 0.05 [0.02; 0.07] | 0.008 | 1876.741\* | 95.250\* |
| Bravery | 0.06 [0; 0.12] | 0.14 [0.09; 0.19] | 0.12 [0.05; 0.19] | 0.09 [0.03; 0.15] | 0.14 [0.11; 0.17] | 0.011 | 2781.526\* | 56.466\* |
| Creativity | 0.02 [-0.03; 0.07] | 0.12 [0.08; 0.17] | 0.14 [0.07; 0.2] | 0.06 [0.01; 0.11] | 0.09 [0.07; 0.12] | 0.009 | 3516.879\* | 96.736\* |
| Curiosity | 0.1 [0.05; 0.15] | 0.24 [0.2; 0.28] | 0.22 [0.16; 0.27] | 0.16 [0.1; 0.21] | 0.22 [0.18; 0.24] | 0.008 | 4103.610\* | 117.633\* |
| Fairness | 0.05 [0; 0.1] | 0.07 [0.03; 0.1] | 0.09 [0.03; 0.14] | 0.11 [0.06; 0.16] | 0.12 [0.09; 0.14] | 0.006 | 1149.414\* | 35.469\* |
| Forgiveness | 0.11 [0.08; 0.15] | 0.16 [0.13; 0.18] | 0.14 [0.09; 0.19] | 0.21 [0.16; 0.25] | 0.17 [0.15; 0.2] | 0.005 | 1109.798\* | 13.961\* |
| Gratitude | 0.12 [0.06; 0.18] | 0.29 [0.24; 0.33] | 0.2 [0.14; 0.27] | 0.19 [0.12; 0.25] | 0.25 [0.22; 0.28] | 0.015 | 5177.542\* | 159.119\* |
| Honesty | 0.1 [0.05; 0.16] | 0.16 [0.11; 0.2] | 0.12 [0.05; 0.18] | 0.13 [0.07; 0.19] | 0.16 [0.14; 0.19] | 0.009 | 2148.538\* | 34.506\* |
| Hope | 0.25 [0.19; 0.32] | 0.41 [0.36; 0.46] | 0.3 [0.22; 0.37] | 0.29 [0.22; 0.36] | 0.4 [0.36; 0.43] | 0.023 | 7128.935\* | 58.854\* |
| Humility | -0.01 [-0.03; 0.01] | -0.02 [-0.03; 0] | 0.03 [-0.01; 0.08] | 0.03 [-0.01; 0.06] | 0.04 [0.02; 0.07] | 0.002 | 1779.295\* | 2.025 |
| Humor | 0.1 [0.08; 0.12] | 0.16 [0.14; 0.18] | 0.2 [0.14; 0.26] | 0.11 [0.07; 0.16] | 0.17 [0.14; 0.2] | 0.011 | 2610.984\* | 48.054\* |
| Judgment | 0.09 [0.04; 0.14] | 0.12 [0.08; 0.16] | 0.11 [0.05; 0.17] | 0.12 [0.07; 0.17] | 0.13 [0.11; 0.16] | 0.007 | 2251.728\* | 16.354\* |
| Kindness | 0.01 [-0.04; 0.07] | 0.07 [0.03; 0.11] | 0.05 [-0.01; 0.11] | 0.06 [0; 0.12] | 0.11 [0.09; 0.14] | 0.007 | 1855.444\* | 87.656\* |
| Leadership | 0.09 [0.04; 0.15] | 0.15 [0.1; 0.2] | 0.15 [0.08; 0.22] | 0.09 [0.03; 0.15] | 0.16 [0.13; 0.18] | 0.012 | 2005.695\* | 62.843\* |
| Love of learning | 0.08 [0.02; 0.13] | 0.17 [0.12; 0.21] | 0.17 [0.11; 0.24] | 0.11 [0.05; 0.16] | 0.16 [0.13; 0.18] | 0.012 | 3355.213\* | 20.031\* |
| Love | 0.14 [0.06; 0.22] | 0.3 [0.23; 0.36] | 0.19 [0.1; 0.27] | 0.16 [0.08; 0.24] | 0.28 [0.24; 0.3] | 0.025 | 4400.771\* | 68.281\* |
| Perseverance | 0.14 [0.08; 0.2] | 0.26 [0.21; 0.32] | 0.16 [0.09; 0.23] | 0.15 [0.08; 0.22] | 0.24 [0.21; 0.26] | 0.015 | 3270.691\* | 41.995\* |
| Perspective | 0.05 [-0.01; 0.11] | 0.15 [0.1; 0.2] | 0.13 [0.06; 0.2] | 0.1 [0.04; 0.16] | 0.16 [0.14; 0.19] | 0.011 | 2652.845\* | 73.729\* |
| Prudence | 0.08 [0.02; 0.15] | 0.12 [0.06; 0.18] | 0.08 [0; 0.16] | 0.13 [0.06; 0.2] | 0.14 [0.12; 0.17] | 0.017 | 2125.283\* | 1.467 |
| Self regulation | 0.2 [0.15; 0.25] | 0.21 [0.17; 0.25] | 0.23 [0.17; 0.29] | 0.29 [0.23; 0.34] | 0.23 [0.21; 0.26] | 0.010 | 3412.153\* | 1.518 |
| Social intelligence | 0.1 [0.04; 0.16] | 0.17 [0.12; 0.22] | 0.18 [0.12; 0.25] | 0.16 [0.1; 0.22] | 0.19 [0.17; 0.22] | 0.013 | 2230.926\* | 72.529\* |
| Spirituality | 0.04 [-0.02; 0.09] | 0.15 [0.11; 0.2] | 0.08 [0.02; 0.14] | 0.07 [0.01; 0.13] | 0.12 [0.09; 0.14] | 0.009 | 4855.399\* | 65.422\* |
| Teamwork | 0.09 [0.03; 0.15] | 0.15 [0.1; 0.2] | 0.13 [0.06; 0.2] | 0.11 [0.05; 0.18] | 0.19 [0.16; 0.21] | 0.011 | 1574.225\* | 32.782\* |
| Zest | 0.23 [0.15; 0.3] | 0.44 [0.37; 0.5] | 0.32 [0.24; 0.4] | 0.27 [0.19; 0.34] | 0.36 [0.33; 0.4] | 0.030 | 5762.106\* | 98.822\* |

# Table results overall

Table 9  
*Meta-analytical associations between character strengths and mental health and well-being*

| Strength | N | k | r | CI | se | tau2 | Q |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Appreciation of beauty | 297,966 | 206 | 0.134\* | [0.115; 0.152] | 0.010 | 0.008 | 2258\* |
| Bravery | 297,163 | 201 | 0.210\* | [0.189; 0.231] | 0.011 | 0.012 | 3267\* |
| Creativity | 300,171 | 207 | 0.173\* | [0.154; 0.191] | 0.010 | 0.009 | 3809\* |
| Curiosity | 302,278 | 211 | 0.308\* | [0.285; 0.330] | 0.013 | 0.016 | 4814\* |
| Fairness | 296,350 | 199 | 0.171\* | [0.153; 0.188] | 0.009 | 0.007 | 1355\* |
| Forgiveness | 302,471 | 216 | 0.205\* | [0.190; 0.220] | 0.008 | 0.006 | 1183\* |
| Gratitude | 321,558 | 231 | 0.353\* | [0.333; 0.372] | 0.011 | 0.014 | 5678\* |
| Honesty | 297,101 | 199 | 0.216\* | [0.197; 0.235] | 0.010 | 0.010 | 2305\* |
| Hope | 344,632 | 224 | 0.456\* | [0.429; 0.482] | 0.017 | 0.032 | 7841\* |
| Humility | 342,132 | 204 | 0.056\* | [0.041; 0.072] | 0.008 | 0.005 | 1820\* |
| Humor | 346,424 | 221 | 0.231\* | [0.213; 0.250] | 0.010 | 0.010 | 2940\* |
| Judgment | 298,639 | 201 | 0.166\* | [0.148; 0.184] | 0.010 | 0.008 | 2363\* |
| Kindness | 302,253 | 209 | 0.197\* | [0.176; 0.218] | 0.011 | 0.013 | 2472\* |
| Leadership | 299,212 | 202 | 0.225\* | [0.207; 0.242] | 0.009 | 0.008 | 2409\* |
| Love of learning | 301,375 | 208 | 0.195\* | [0.175; 0.216] | 0.011 | 0.011 | 3443\* |
| Love | 300,315 | 212 | 0.348\* | [0.326; 0.370] | 0.013 | 0.016 | 4610\* |
| Perseverance | 297,893 | 203 | 0.291\* | [0.273; 0.309] | 0.010 | 0.009 | 3441\* |
| Perspective | 298,434 | 202 | 0.243\* | [0.223; 0.264] | 0.011 | 0.012 | 3168\* |
| Prudence | 296,512 | 197 | 0.156\* | [0.137; 0.175] | 0.010 | 0.008 | 2126\* |
| Self regulation | 297,483 | 205 | 0.242\* | [0.225; 0.260] | 0.009 | 0.008 | 3454\* |
| Social intelligence | 305,999 | 213 | 0.262\* | [0.242; 0.281] | 0.011 | 0.011 | 2562\* |
| Spirituality | 298,366 | 208 | 0.192\* | [0.174; 0.211] | 0.010 | 0.008 | 5252\* |
| Teamwork | 299,515 | 203 | 0.238\* | [0.220; 0.256] | 0.010 | 0.008 | 1799\* |
| Zest | 318,143 | 213 | 0.447\* | [0.423; 0.471] | 0.015 | 0.025 | 6003\* |