## Supplementary files B

Table 1S. Between group differences in the percentage of people visiting natural areas "often" pre-pandemic versus during the pandemic.

|  |  |  |
| --- | --- | --- |
| Variable | Subgroups compared | Mean (95 % CI) |
| Age | *< 70 years - ≥ 70 years* | 5.95 (1.5;10.41)\* |
| Sex | *men - women* | -2.49 (-5.96;0.99) |
| Education | *basic – high school* | -7.14 (-15.21;0.93) |
| *high school – university* | -3.59 (-7.56;0.37) |
| *basic – university* | -10.73 (-18.38;-3.08)\* |
| Ethnicity | *not born in SSB - born in SSB* | -5.83 (-11.43;-0.24)\* |
| *neither mother nor father from SSB - both or one of the parents from SSB* | -5.27 (-10.6;0.07) |
| Walkability | *Poor – Good* | 2.56 (-1.83;6.96) |
| *Good – Very Good* | 1.62 (-2.54;5.78) |
| *Poor – Very Good* | 4.18 (-0.09;8.45) |
| NDVI in 50m buffers | *Low – Average* | -2.16 (-6.49;2.17) |
| *Average – High* | 0.02 (-4.12;4.16) |
| *Low – High* | -2.14 (-6.39;2.11) |

Table 2S. What was your reason, before/during the Covid-19 pandemic, not to visit nature areas more often?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | beofore Covid-19 | during Covid-19 | difference between before and during Covid -19 | | | |
| n=67 | % | % | % | 95 % CI | | p |
| I am not interested in/do not like visiting nature areas | 49.3 | 44.8 | 4.5 | -3.3 | 12.3 | 0.2599 |
| My health does not allow me to visit nature areas | 6.0 | 4.5 | 1.0 | -1.5 | 4.5 | 0.3210 |
| There are no suitable nature areas within walking distance | 16.4 | 17.9 | 1.5 | -3.7 | 6.7 | 0.5676 |
| I feel insecure in nature areas | 3.0 | 6.0 | 3.0 | -1.1 | 7.2 | 0.1589 |
| I do not have time to visit nature areas | 23.9 | 23.9 | 0.0 | -8.5 | 8.5 | 1.0000 |
| I have a garden and that's enough | 19.4 | 20.9 | 1.5 | -1.5 | 4.5 | 0.3210 |

Table 3S. NDVI within 50m buffers and the average Mental Health scores, stratified by walkability.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Walkability below median | | | | | Walkability above median | | | | |
|  | NDVI low | | NDVI high | |  | NDVI low | | NDVI high | |  |
| Income low | N |  | N |  | p | N |  | N |  | p |
| Mental health score (RAND36) | 436 | 68,817 (67,002;70,631) | 616 | 71,805 (70,38;73,231) | 0,01\* | 580 | 74,021 (72,713;75,328) | 394 | 74,863 (73,31;76,416) | 0,417 |
| Vitality score (RAND36) | 436 | 56,709 (54,711;58,706) | 616 | 59,976 (58,339;61,613) | 0,013\* | 580 | 62,526 (60,939;64,113) | 394 | 62,716 (60,756;64,676) | 0,882 |
| Anxiety score (SCL90) | 436 | 1,466 (1,291;1,64) | 617 | 1,246 (1,119;1,373) | 0,041\* | 580 | 1,059 (0,938;1,18) | 395 | 0,922 (0,797;1,046) | 0,133 |
| Depression score (SCL90) | 437 | 6,915 (6,372;7,458) | 617 | 5,976 (5,567;6,384) | 0,006\* | 580 | 5,16 (4,769;5,552) | 395 | 5,273 (4,824;5,723) | 0,712 |
| Perceived Stress Scale (PSS) | 431 | 9,376 (8,94;9,812) | 607 | 8,697 (8,371;9,023) | 0,013\* | 575 | 8,245 (7,923;8,567) | 391 | 8,136 (7,753;8,518) | 0,668 |
| The Cognitive Stress Score (COPSOQ) | 437 | 33,724 (31,679;35,769) | 617 | 31,118 (29,472;32,765) | 0,05\* | 579 | 29,911 (28,309;31,514) | 397 | 29,943 (27,928;31,959) | 0,981 |

Table 4S. Linear regression models adjusted for sex and age only

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Buffer size** | | |
|  | **50m** | **300m** | **500m** |
| ***Mental health score (RAND36)*** |  |  |  |
| *NDVI* | 1.611 (3.535;6.756) | 0.606 (-5.313;6.526) | -0.908 (-7.102;5.286) |
| *Sex* | -3.141 (-4.615;-1.667)\* | -3.15 (-4.623;-1.676)\* | -3.155 (-4.629;-1.682)\* |
| *Age* | 0.271 (0.224;0.317)\* | 0.271 (0.224;0.318)\* | 0.271 (0.224;0.317)\* |
| ***Vitality score (RAND36)*** |  |  |  |
| *NDVI* | 0.67 (-5.312;6.651) | -2.047 (-8.927;4.833) | -2.941 (-10.139;4.258) |
| *Sex* | -2.754 (-4.467;-1.041)\* | -2.767 (-4.48;-1.054)\* | -2.769 (-4.481;-1.056)\* |
| *Age* | 0.354 (0.299;0.408)\* | 0.353 (0.299;0.408)\* | 0.353 (0.299;0.407)\* |
| ***Anxiety score (SCL90)*** |  |  |  |
| *NDVI* | 0.151 (0.615;0.314) | 0.047 (-0.487;0.582) | 0.078 (-0.482;0.637) |
| *Sex* | 0.228 (0.095;0.361)\* | 0.229 (0.096;0.363)\* | 0.229 (0.096;0.363)\* |
| *Age* | -0.026 (-0.03;-0.021)\* | -0.026 (-0.03;-0.021)\* | -0.026 (-0.03;-0.021)\* |
| ***Depression score (SCL90)*** |  |  |  |
| *NDVI* | 0.221 (-1.302;1.743) | 0.243 (-1.509;1.994) | 0.583 (-1.249;2.416) |
| *Sex* | 0.69 (0.254;1.126)\* | 0.69 (0.254;1.126)\* | 0.691 (0.255;1.127)\* |
| *Age* | -0.073 (-0.087;-0.06)\* | -0.073 (-0.087;-0.06)\* | -0.073 (-0.087;-0.059)\* |
| ***Perceived Stress Scale (PSS)*** |  |  |  |
| *NDVI* | 0.31 (1.53;0.91) | -0.323 (-1.727;1.081) | -0.2 (-1.67;1.27) |
| *Sex* | 0.708 (0.358;1.058)\* | 0.709 (0.359;1.059)\* | 0.71 (0.36;1.059)\* |
| *Age* | -0.071 (-0.082;-0.06)\* | -0.071 (-0.082;-0.06)\* | -0.071 (-0.082;-0.06)\* |
| ***The Cognitive Stress Score (COPSOQ)*** |  |  |  |
| *NDVI* | -1.476 (-7.578;4.625) | -2.894 (-9.915;4.127) | -2.338 (-9.688;5.012) |
| *Sex* | 3.649 (1.901;5.397)\* | 3.647 (1.899;5.394)\* | 3.651 (1.904;5.399)\* |
| *Age* | -0.328 (-0.383;-0.273)\* | -0.328 (-0.384;-0.273)\* | -0.329 (-0.384;-0.273)\* |

Table 5S. Mental health estimates associated with NDVI within different buffer sizes (models adjusted as in table 6). (\*p<0.05; CI – Confidence Interval)

|  |  |  |  |
| --- | --- | --- | --- |
| **Mental health estimate** | **100m** | **300m** | **500m** |
| *Mental health score (RAND36)* | 6,017 (0,514;11,521)\* | 6,563 (0,531;12,594)\* | 5,521 (-0,8;11,842) |
| *Vitality score (RAND36)* | 4,494 (-1,844;10,832) | 6,563 (0,531;12,594)\* | 4,096 (-3,182;11,375) |
| *Anxiety score (SCL90)* | -0,598 (-1,1;-0,096)\* | -0,492 (-1,042;0,058) | -0,502 (-1,078;0,074) |
| *Depression score (SCL90)* | -1,303 (-2,932;0,327) | -1,627 (-3,413;0,158) | -1,596 (-3,114;-0,079)\* |
| *Perceived Stress Scale (PSS)* | -1,165 (-2,485;0,156) | -1,553 (-3,001;-0,106)\* | -1,596 (-3,114;-0,079)\* |
| *The Cognitive Stress Score (COPSOQ)* | -6,802 (-13,389;-0,215)\* | -9,029 (-16,245;-1,812)\* | -9,379 (-16,942;-1,816)\* |

Table 6S. Fully adjusted linear spline models with the knot set to NDVI = 0.5 (\*p<0.05; CI – Confidence Interval)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | 50m | 100m | 300m | 500m |
| *Mental health score (RAND36)* | below 0.5 | 5.418  (-1.571;12.408) | 4.301  (-3.041;11.642) | 1.589  (-6.423;9.601) | -1.717  (-10.119;6.685) |
| above 0.5 | 8.426  (-13.601;30.453) | 14.301  (-9.778;38.379) | 29.602 (4.422;54.781)\* | 39.867 (12.806;66.927)\* |
| *Vitality score (RAND36)* | below 0.5 | 5.386  (-2.664;13.436) | 3.916  (-4.541;12.372) | 3.246  (-5.991;12.482) | -1.955  (-11.637;7.726) |
| above 0.5 | 2.312  (-23.055;27.679) | 7.285  (-20.449;35.019) | 8.661  (-20.366;37.689) | 32.816 (1.633;63.999)\* |
| Anxiety score (SCL90) | below 0.5 | -0.367  (-1.004;0.27) | -0.212  (-0.88;0.457) | -0.057  (-0.788;0.673) | 0.106  (-0.661;0.872) |
| above 0.5 | -1.77  (-3.777;0.238) | -2.461  (-4.654;-0.268)\* | -2.504  (-4.794;-0.214)\* | -3.38  (-5.845;-0.915)\* |
| Depression score (SCL90) | below 0.5 | -1.074  (-3.144;0.996) | -0.224  (-2.397;1.95) | -0.028  (-2.399;2.342) | 0.806  (-1.681;3.293) |
| above 0.5 | -2.523  (-9.047;4.001) | -6.506  (-13.631;0.619) | -9.017  (-16.448;-1.586)\* | -11.967  (-19.966;-3.969)\* |
| *Perceived Stress Scale (PSS)* | below 0.5 | -1.389  (-3.071;0.293) | -1.308  (-3.073;0.457) | -1.012  (-2.937;0.912) | -0.486  (-2.504;1.532) |
| above 0.5 | -0.332  (-5.646;4.982) | -0.477  (-6.263;5.31) | -4.059  (-10.109;1.991) | -6.88  (-13.389;-0.371)\* |
| *The Cognitive Stress Score (COPSOQ)* | below 0.5 | -7.857  (-16.229;0.515) | -8.611  (-17.405;0.183) | -9.649  (-19.241;-0.057)\* | -7.004  (-17.07;3.061) |
| above 0.5 | 0.876  (-25.443;27.196) | 1.912  (-26.906;30.73) | -6.159  (-36.246;23.929) | -20.66  (-53.103;11.783) |