**Supplementary Table 1.** Bivariate correlations between pain catastrophizing, magnification and helplessness and regional gray matter volume using age and total GMV as covariates

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Region | Cluster Peak MNI - coordinates    x y z | | | z-Score | Cluster size  k = 1.5 mm3 |
| Overall Pain catastrophizing | R cuneus (-)  L MFG (-)  R cingulate cortex (-) | 14  -17  15 | -79  27  -19 | 19  39  36 | 3.47  3.27  3.23 | 9  14  7 |
|  | R MFG (+)  R MTG (+)  R midbrain (+)  L cuneus (+)  R STG (+) | 17  41  17  -9  53 | -6  6  -25  -96  -6 | 63  -32  -9  30  -9 | 4.36  3.42  3.28  3.19  3.17 | 353  29  9  5  7 |
| Magnification | L PCC (-) | -9 | -55 | 0 | 3.54 | 82 |
|  | L MFG (+)  R Inf. parietal lobule (+)  R STG (+)  L Middle Occipital Gyrus (+)  R MFG (+)  R SMA (+)  R cingulate gyrus (+) | -38  -9  42  41  -17  12  12  8 | 2  -28  -45  9  -93  38  -19  -13 | 48  55  51  -30  13  37  52  30 | 3.47  3.22  3.64  3.70  3.54  3.42  3.32  3.21 | 119  14  71  48  6  30  6  13 |
| Helplessness | R IOG (-) | 30 | -93 | -5 | 3.31 | 45 |
|  | R MFG/ SMA (+)  R MFG (+)  R SMA (+)  R STG (+)  L MFG (+)  L SOG (+)  R PCC (+) | 17  27  12  56  54  -48  -9  3 | -7  2  0  -12  -39  38  -97  -49 | 60  67  61  0  22  25  28  7 | 5.00  3.93  3.49  4.27  3.55  3.48  3.23  3.16 | 403  187  11  12  12  5 |

Significant Correlations between pain catastrophizing, magnification and helplessness and GMV. Reported are the MNI coordinates, z-score and the cluster size in mm3, PCC: posterior cingulate; MFG: medial frontal gyrus; SMA: supplementary motor area; STG: superior temporal Gyrus; IOG: Inferior Occipital Gyrus; SOG: superior occipital gyrus; (+): positive correlation; (-): negative correlation. Statistical maps were set at a cluster threshold of 5 voxels corresponding to an uncorrected p < 0.001.

**Supplementary Table 2.** Bivariate correlations between pain catastrophizing, magnification and helplessness and regional gray matter volume using age, total GMV and depression as covariates

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Region | Cluster Peak MNI - coordinates    x y z | | | z-Score | Cluster size  k = 1.5 mm3 |
| Overall Pain catastrophizing | L Cuneus (-)  L PCC (-)  R Fusiform (-)  R Lingual Gyrus (-)  L Fusiform (-)  R Precuneus (-)  L MFG (-)  R Fusiform (-)  R SMA (+)  R MTG (+) | -11  -8  27  14  -38  21  -17  30  12  41  -36  42  17  27  -32 | -64  -57  -85  -79  -78  -66  27  -49  -1  6  2  -45  -24  2  -3 | 6  21  -3  21  -14  34  37  -15  63  -32  48  51  -9  67  64 | 3.86  3.64  3.82  3.70  3.51  3.32  3.25  3.20  3.97  3.70  3.52  3.52  3.50  3.33  3.15 | 338  51  24  15  17  29  5  163  49  42  19  11  7  5 |
|  |  |  |  |  |  |  |
| Magnification | L PCC (-)  R STG (+)  L MFG (+)  R Inf. parietal lobule (+)  R MFG (+)  L Middle Occipital Gyrus (+)  R SMA (+)  L MFG (+)  L angular gyrus (+)  R cingulate gyrus (+) | -8  41  -38  -41  -35  42  12  -17  12  -8  -36  8 | -61  9  2  11  11  -45  38  -93  -19  -30  -70  -13 | 6  -30  48  57  45  51  37  13  52  55  42  30 | 3.88  3.62  3.60  3.38  3.24  3.59  3.55  3.48  3.33  3.28  3.26  3.14 | 239  40  123  60  39  5  5  27  6  5 |
|  |  |  |  |  |  |  |
| Helplessness | L IOG (-)  R Cuneus (-)  R MTG (-)  L ITG (-)  R IOG (-)  R MTG (-)  R MTG (-)  L Cuneus (-)  L PCC (-)  R Fusiform Gyrus (-)  R STG (-)  R STG (+)  R MFG (+) | -23  14  51  -54  -51  30  48  57  -11  -9  36  50  57  56  17  27 | 17  -79  -46  -58  -55  -93  -72  -42  -91  -57  -57  -37  -15  -15  -6  2 | -17  21  6  -17  -9  -5  9  -2  6  24  -12  6  1  22  60  67 | 3.99  3.98  3.45  3.31  3.16  3.31  3.29  3.29  3.26  3.25  3.23  3.16  4.80  3.44  4.50  3.52 | 40  29  15  27  45  15  8  25  10  13  15  265  10  227  15 |
|  |  |  |  |  |  |  |

Significant Correlations between pain catastrophizing, magnification and helplessness and GMV. Reported are the MNI coordinates, z-score and the cluster size in mm3, PCC: posterior cingulate; MFG: medial frontal gyrus; SMA: supplementary motor area; STG: superior temporal Gyrus; IOG: Inferior Occipital Gyrus; SOG: superior occipital gyrus; MTG: middle temporal gyrus; (+): positive correlation; (-): negative correlation. Statistical maps were set at a cluster threshold of 5 voxels corresponding to an uncorrected p < 0.001.