

SUPPLEMENTARY FIGURES:

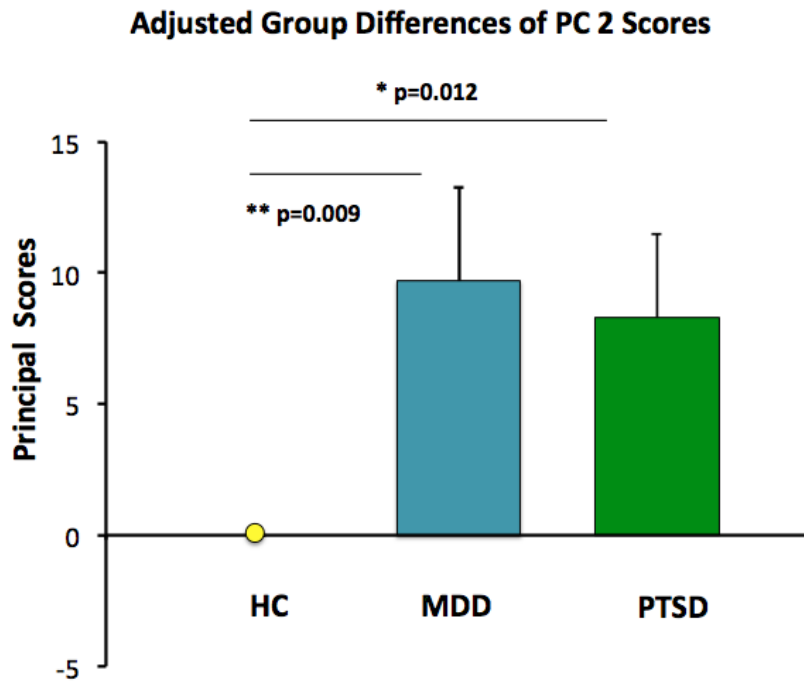


Figure S.1: Barplots showing the adjusted group differences when comparing the PC2 scores based on the second eigenimage across the three diagnostic groups (MDD: azure bar and PTSD: dark green bar) where HC served as the reference group (yellow dot). Similar linear regression models as in **Figure 2.B** were conducted comparing the second principal scores between MDD or PTSD as respect to HCs, adjusting for age, gender and motion. The length of each bar represents group difference of PC2 scores when compared with HC, after adjusting for covariates. The length of the error bars indicates the standard errors of the effect size estimation. Results show that both MDD and PTSD alone have significantly higher loadings on the second eigenimage difference map than HCs ($p=0.009$ for MDD and $p=0.012$ for PTSD), and hence confirm our dimensional hypothesis, indicating that both MDD and PTSD had significant increases in functional connectivity following CBT.

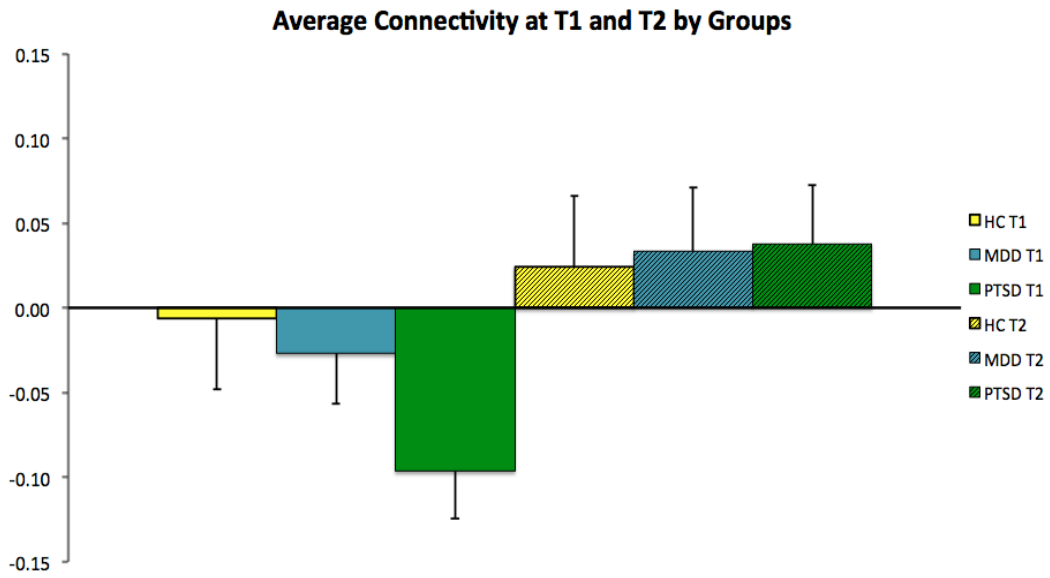


Figure S.2: Barplots showing the average connectivity within the IFG region detected based on the voxel-wise analysis (bright green region in **Figure 2.A**) separately by HC, MDD and PTSD groups (yellow, azure and dark green) at baseline and after 12 weeks. Similar to the results from combined patients analysis as shown in **Figure 3**, deficient connectivity of IFG and amygdala at baseline, and enhanced connectivity after treatment were observed separately for both MDD and PTSD. The plot shows unadjusted connectivity measures and no statistical tests were conducted.