
**Fig. DS1** SPM whole brain analysis: plan minus subtract for all participants generated activation within the expected network.
Note: $P<0.05$, FDR corrected
**Fig. DS2** CamBA analysis: Regions of significant underactivation during the planning task in the SPD v. control group (task minus rest)

Note: $P<0.05$ uncorrected voxel-wise then cluster corrected at $p<1$ false positive cluster across the whole brain mass
**Fig. DS3** Mean (SD) brain activation across groups in the significant brain cluster identified in the primary analysis, with break-down for female and male controls. It can be seen that female and male controls did not differ significantly in terms of activation in this cluster (p>0.70 uncorrected, by t-test). The difference in activation between patients and controls remained significant even after excluding the two male controls (p<0.001 uncorrected, by t-test).