

## PW01-173 – OBJECT VISUAL PROCESSING IN BODY DYSMORPHIC DISORDER

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**Introduction:** Body dysmorphic disorder (BDD) is characterized by a preoccupation with misperceived defects in appearance. Neuropsychological studies and neuroimaging studies of face perception suggests visual processing abnormalities in individuals with BDD, which may involve focus on details at the expense of configural elements.

**Objective:** The objective of the current functional magnetic resonance imaging (fMRI) study was to determine whether individuals with BDD have abnormal patterns of brain activation when visually processing non-face objects (houses).

**Methods:** Fourteen medication-free subjects with BDD and fourteen matched healthy controls engaged in a matching task of photographs of houses that were

- a) unaltered,
- b) high spatial frequency (high detail elements only), or
- c) low spatial frequency (low detail elements only).

The main outcome measure was group differences in blood oxygen level-dependent fMRI signal changes.

**Results:** BDD subjects demonstrated lesser activity relative to controls in left parahippocampal gyrus, left lingual gyrus, and bilateral precuneus for low spatial frequency images and relatively greater activity in the frontal pole, left superior frontal gyrus, bilateral anterior cingulate gyrus, and bilateral paracingulate gyrus for high spatial frequency images (Figure 1).

**Conclusions:** Individuals with BDD have abnormal brain activation patterns when viewing houses for both detailed and configural/holistic visual elements. These results suggest general abnormalities in higher- and lower-order visual processing in individuals with BDD, beyond that for appearance-related stimuli.

