

Poster Session A

C-16

A SPECT Exploratory Analysis of Differentiating Mania Symptomology Severity

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Objective: To assess which brain areas, as measured by SPECT, were related to severity of mania symptomology. **Method:** Using a symptom checklist, participants (57.3% male, mean age = 40.93 years, $SD = 15.71$) were determined based on their scores on a factor measuring Mania symptomatology. Quartiles based on upper 25th ($n = 5314$), middle 50th ($n = 1043$), and lower 75th percentiles ($n = 2509$) were computed to examine the between group differences in blood flow for various regions of the brain. **Results:** A MANOVA was conducted at the .05 level, providing significant differences between the upper and lower quartiles of the clients with mania symptoms, Wilks' $\lambda = .965$; $F(240, 17, 488) = 1.294$, $p = .002$. Subjects in the upper quartile yielded significantly lower blood flow relative to the lower quartile in the following areas: amygdala, calcarine, caudate nucleus, cerebellum, cingulum, Heschl's gyrus, hippocampus, insula, globus pallidus, putamen, inferior, mid and superior temporal lobe, and thalamus. **Conclusion(s):** The purpose of this study was to assess the differences of blood perfusion in those who scored in the upper compared to the lower quartiles of mania symptomology. Analyses denoted significant differences in blood perfusion of those with a range of mania symptom severity. Specifically, self reported mania symptomology appears to be indicative of lower levels of blood perfusion in subcortical regions. These results indicated that SPECT analysis could potentially be useful in the neurological aspect of research on mania symptomology. Ensuing research will aim to distinguish the relationship between brain areas and their associated specific symptoms.