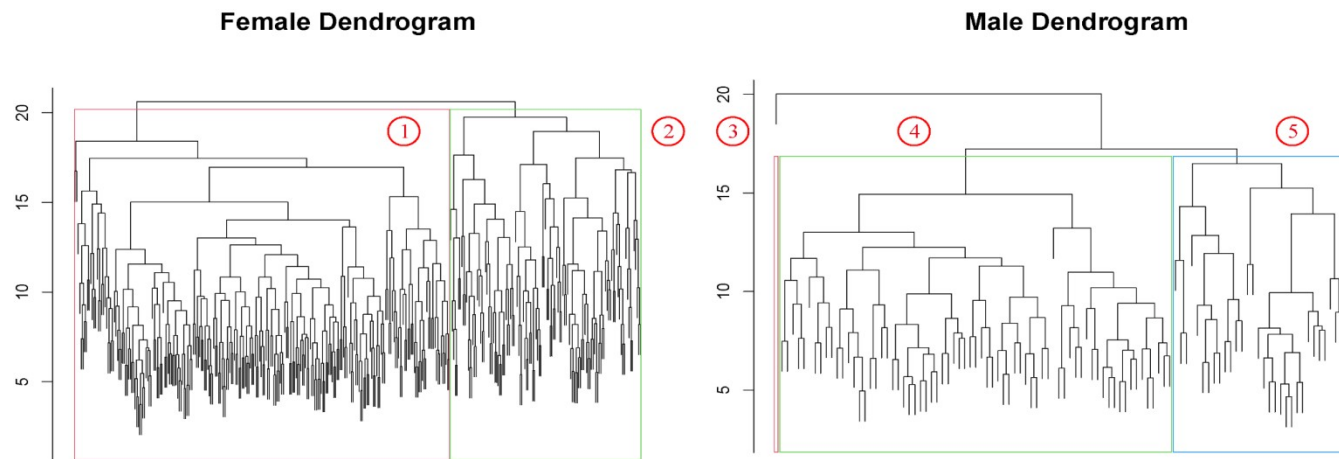


Report



Enrichment Analysis

Normalization

1. Conduct gene expression cutoff (CPM > 1 in more than half of the samples)
2. Gene expression was normalized for composition bias using the trimmed mean of M-values method, implemented by calcNormFactors in the edgeR package

Differential expression testing with linear mixed models

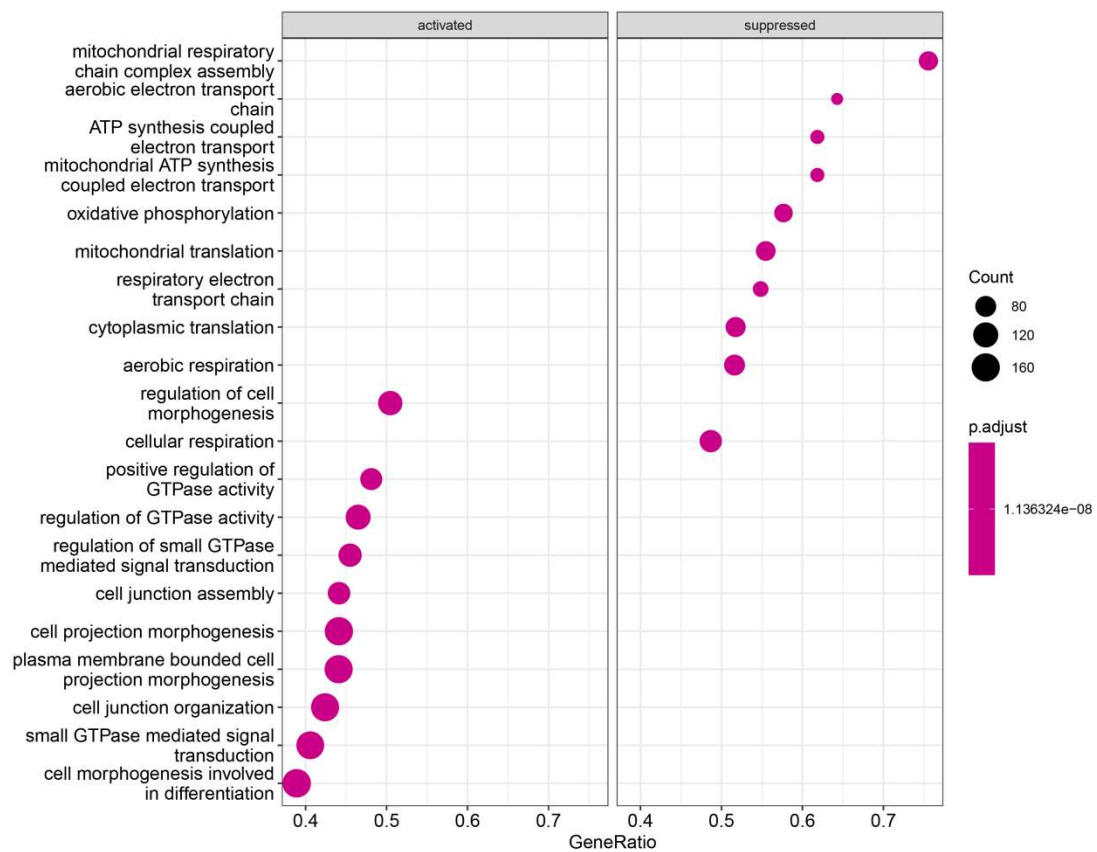
Dream Analysis to fit a linear mixed model to the batch-corrected expression of each gene, controlling for confounders as fix effects.

Confounders: neutrophil, eosinophil, CD16_positive_monocyte, plasmacytoid_dendritic_cell, macrophage_m2, gamma_delta_T_cell, CD14_positive_monocyte

227 different expression genes were found between C5 and control group.

GSEA enrichment analysis

1. IFN α / β signaling did not observed enrichment between MDD and control group
2. Enrichment analysis between C5 and control group

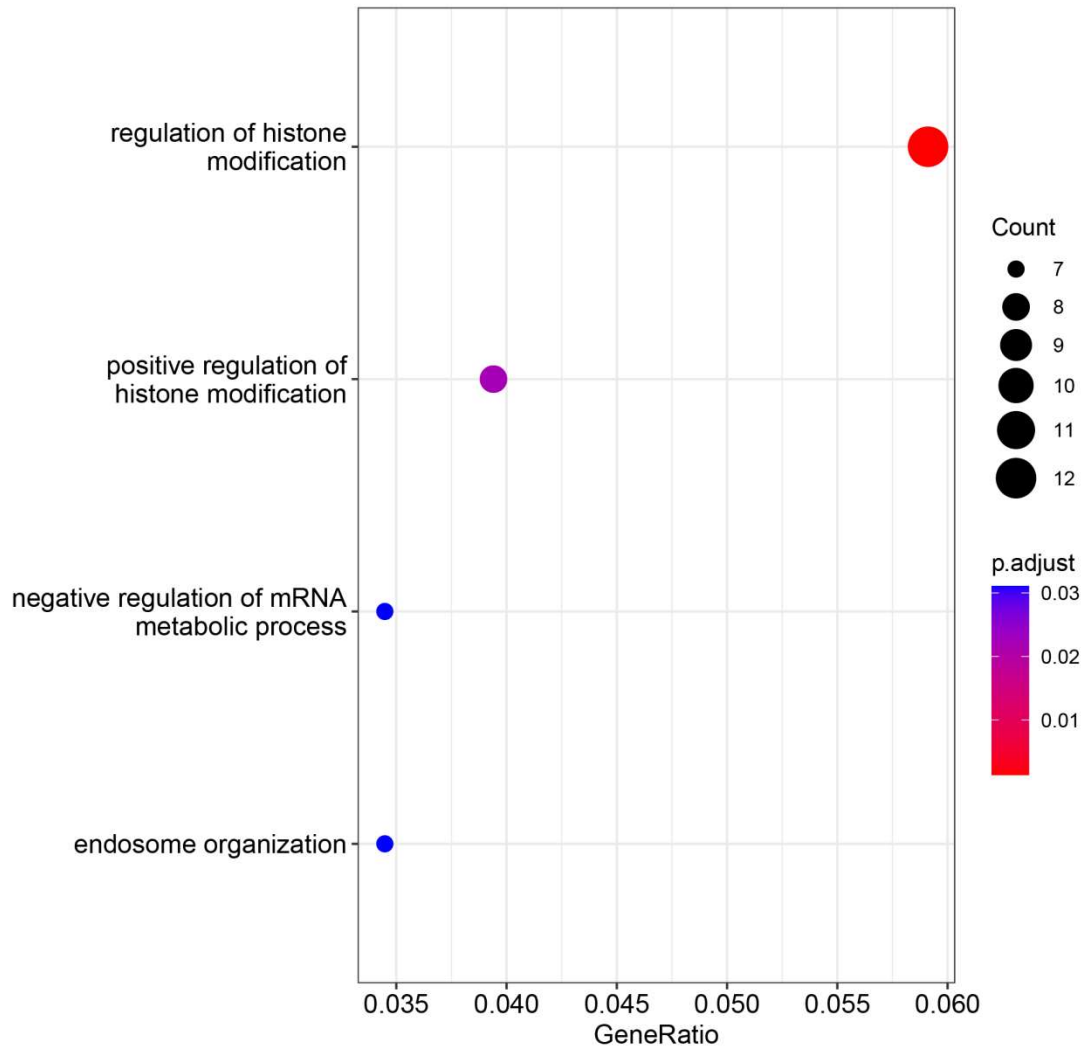


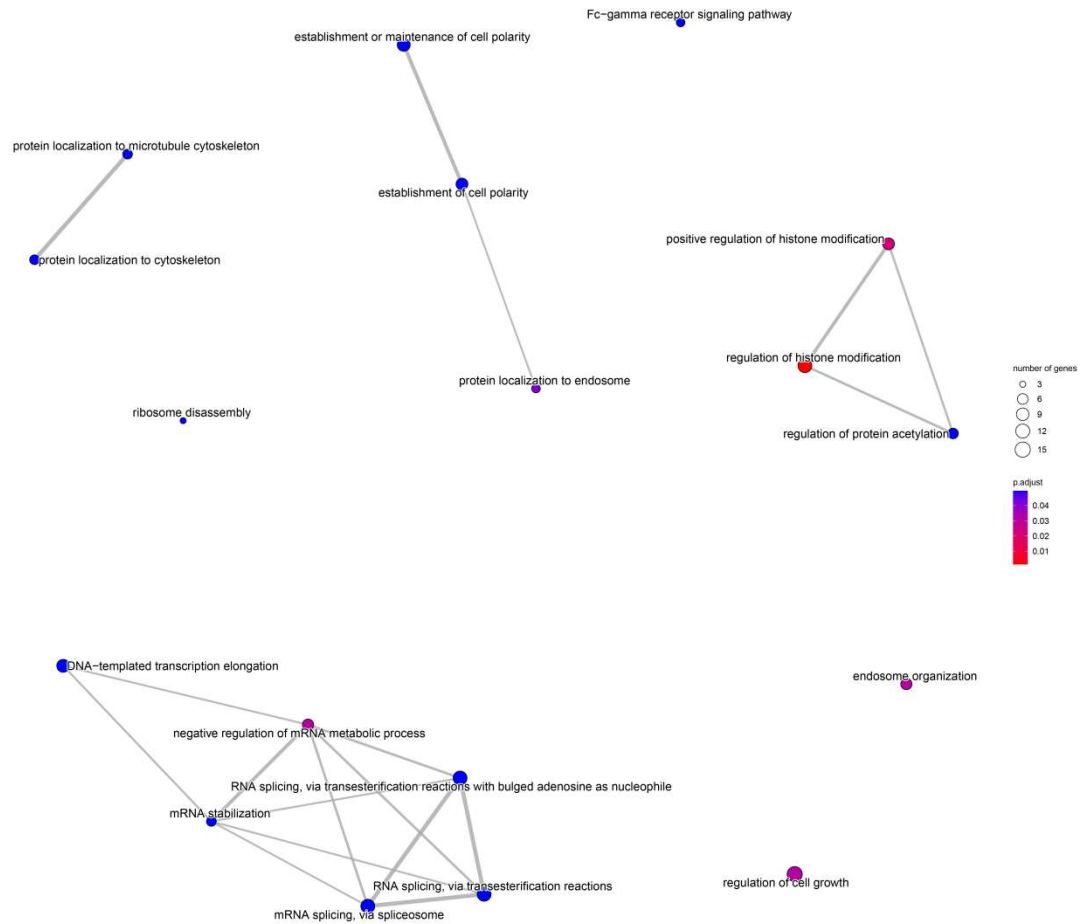


Over-representation analysis

Gene Oncology

Enriched Pathways





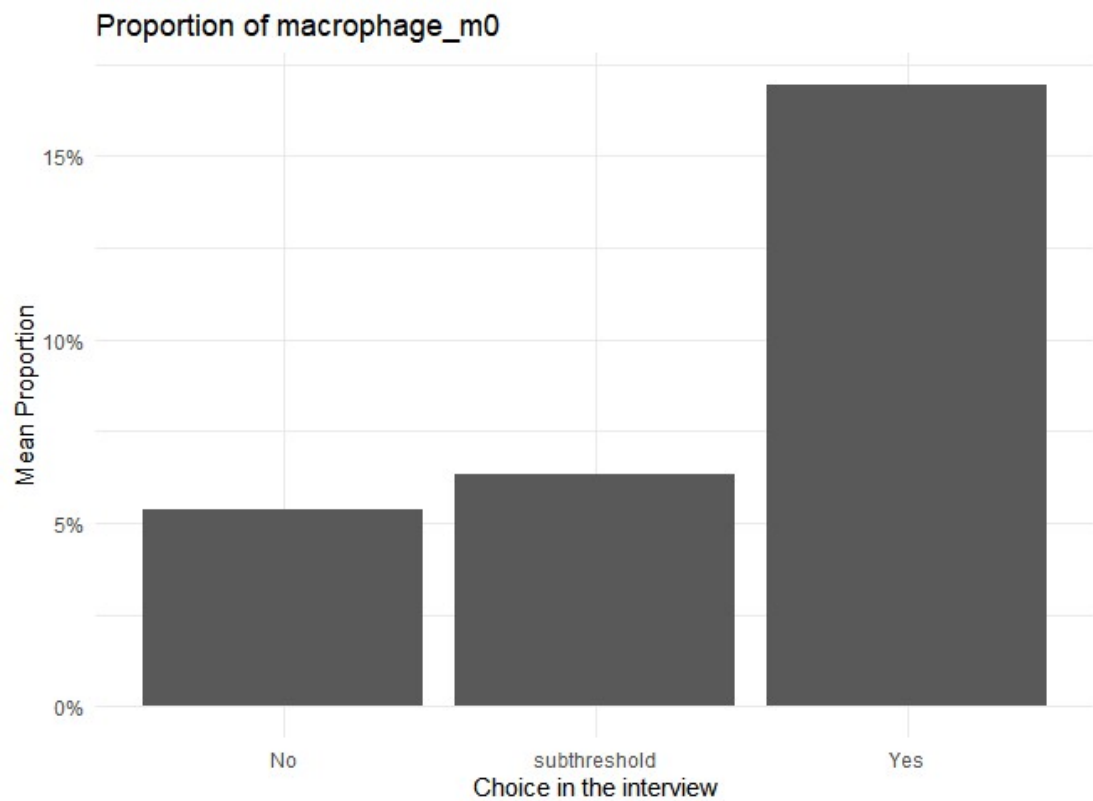
KEGG

Term: Endocytosis

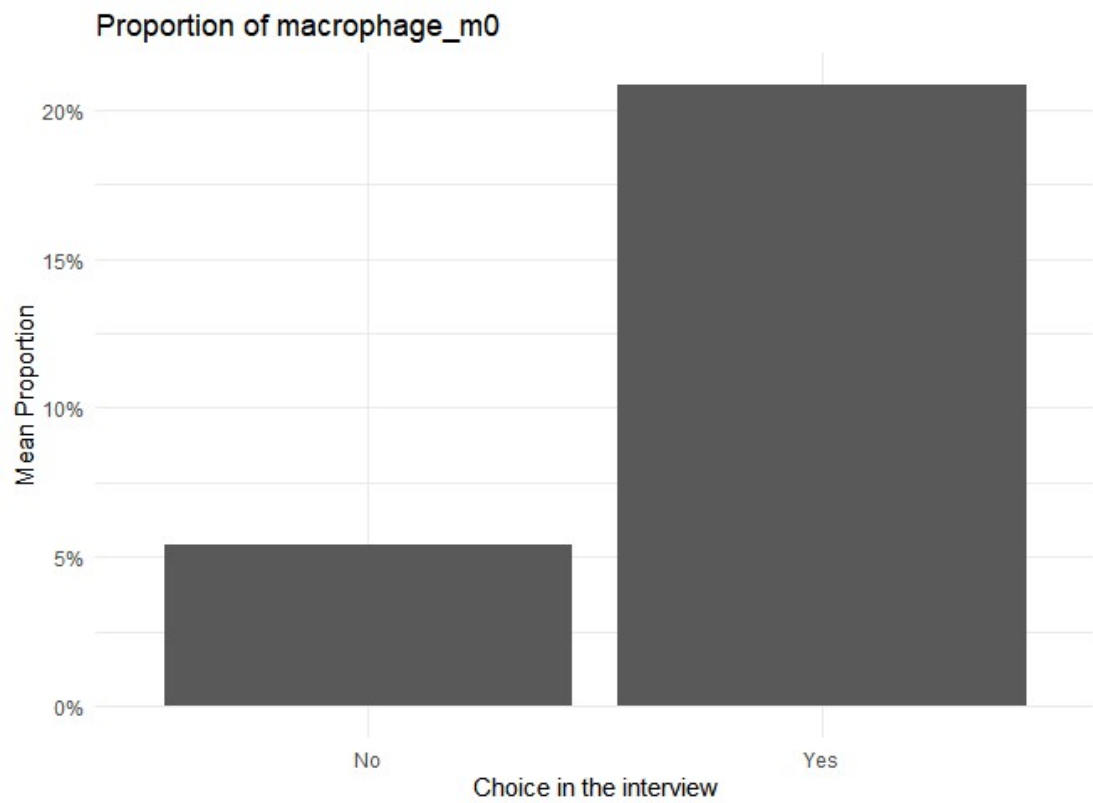
Immune Cell Proportion Difference

1.macrophage_m0

Q:Repetitive behaviors or mental acts that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly



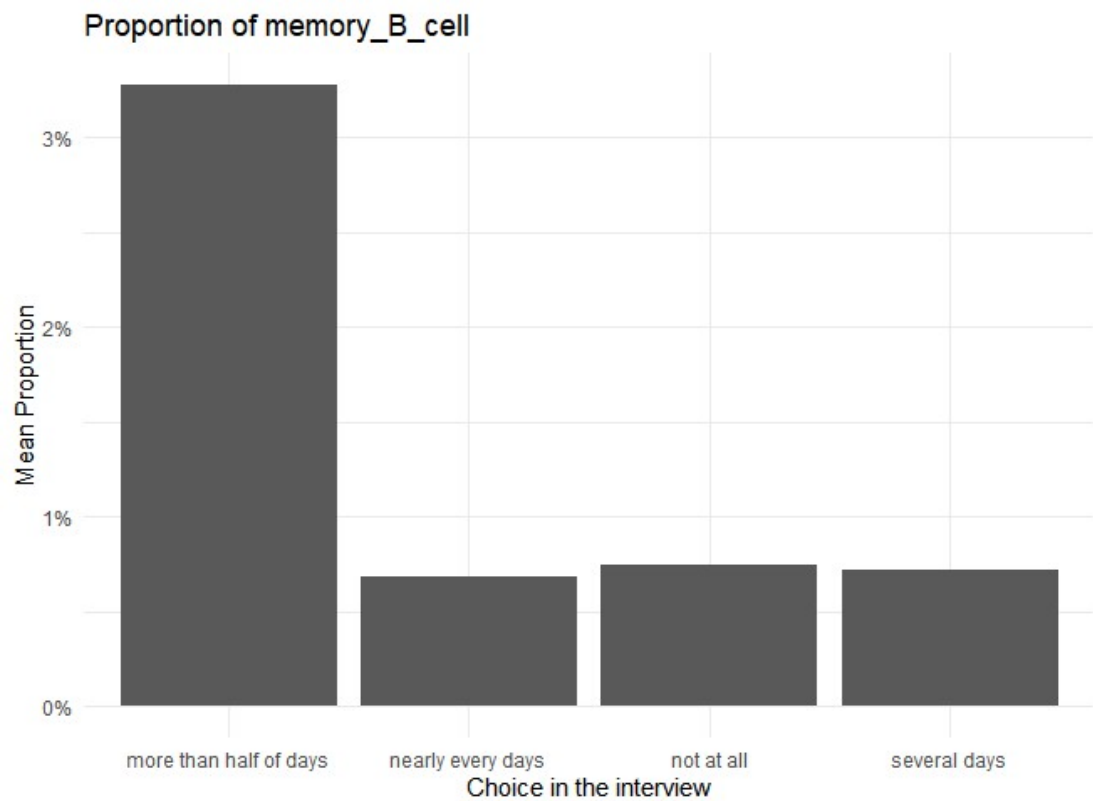
Q:The obsessions or compulsions cause marked distress, are time-consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships



macrophage_m0 also related to DISORDER_2_LEVEL_DX

2.memory_B_cell

Q:Feeling tired or having little energy in the past two weeks(PHQ-4)



memory_B_cell also related to DISORDER_2_LEVEL_DX

3. plasma_cell

Plasma_cell related to DELUSIONS, GAD_5, GAD_6, GAD_7, PHQ_1, PHQ_2, PHQ_6, PHQ_7, PHQ_8, PHQ_9, Phq_Cat, Sex_Abuse, PANIC_WITH_AGORAPHOBIA, Panic_Disorder

PHQ_Cat

