

THE METABOLIC SYNDROME AND LATE-LIFE DEPRESSION

R. Marijnissen^{1,2}, **J. Smits**¹, **R. Schoevers**², **R. van den Brink**², **S. Holewijn**³, **B. Franke**⁴, **J. de Graaf**³, **R. Oude Voshaar**²

¹Old Age Psychiatry, Pro Persona, Arnhem, ²University Center of Psychiatry, University Medical Center Groningen, Groningen, ³Department of General Internal Medicine, Division of Vascular Medicine, ⁴Department of Human Genetics, RUN Medical Centre, Nijmegen, The Netherlands

Objectives: The association between depression and metabolic syndrome is becoming more obvious.

Aims: We examined the relationship between the number and individual components of metabolic syndrome and late-life depressive symptom clusters.

Methods: In 1279 individuals aged 50 through 70 participating in the Nijmegen Biomedical Study (Cross-sectional population-based survey), we measured all metabolic syndrome components and depressive symptoms using the Beck Depression Inventory (BDI). Principal components analysis of BDI-items yielded two factors, representing a cognitive-affective and a somatic-affective symptom-cluster. Multiple regression analyses adjusted for confounders were conducted with BDI sum score and both depression symptom-clusters as dependent variables, respectively. We explored the differences in this association between men and women.

Results: In fully adjusted models, both presence of the metabolic syndrome as well as number of components was associated with the BDI sumscore (resp. $\beta=0.063$; $p=0.022$ vs. $\beta=0.112$; $p<0.001$), the latter showing the strongest association. These associations were primarily driven by the somatic-affective symptom-cluster. Testing individual components of the metabolic syndrome, showed that in men waist circumference, triglycerides and HDL cholesterol were significantly associated with depression, whereas in women only the waist circumference.

Conclusions: The specific association somatic-affective symptoms suggest confounding by a (subclinical) somatic condition instead of a real association with classical depression. The identified sex-differences suggest different pathways between depression and metabolic perturbations in men only. However, as vascular disease develops at higher ages in women and findings were in the same direction but non-significant in women, future research in older women sample should confirm our findings.