NAME OF PRESENTING AUTHOR: Dr. Ziada Ayorech

EMAIL ADDRESS OF PRESENTING AUTHOR: ziada.ayorech@psykologi.uio.no

Polygenic p: Characterizing the role of general genetic liability to psychopathology in maternal depression

Ziada Ayorech[1,2,3], Rosa Cheesman [1], Espen M. Eilertsen [1], Alexandra Havdahl[1,2,3], Eivind Ystrom[1,3,4]

[1]PROMENTA Research Center, Department of Psychology, University of Oslo, Norway

[2]Nic Waals Institute, Oslo, Norway

[3]Department of Mental Disorders, Norwegian Institute of Public Health, Oslo, Norway

[4]School of Pharmacy, University of Oslo, Norway

KEYWORDS: maternal depression, fathers, polygenic scores, p factor, MoBa

ABSTRACT:

Maternal depression (MD) is associated with a number of severe consequences for mother's physical and emotional wellbeing, including suicide. In cases of MD, approximately 24 -50% of partners also develop depression. Despite evidence for substantial genetic contribution to its liability, few MD variants have been identified, especially in contrast to other psychiatric disorders and behavioural traits. We exploit recent evidence of a general dimension (*p)* capturing liability to psychopathology to calculate 'polygenic p', the first principal component of ten major psychiatric disorder polygenic scores, in over 25,000 mothers and fathers, participating in the Norwegian Mother Father and Child Cohort Study (MoBa). Polygenic p is used to predict lifetime history of depression in both mothers and fathers as well as development of depression during the first decade of parenthood (10 assessments from gestational age 17 weeks to 8 years). Results could boost genetic prediction of depression symptom risk and resilience and provide new evidence of genetic assortative mating for psychopathology.

GRANT SUPPORT: ZA is funded by a Marie Skłodowska-Curie Fellowship from the European Union (894675). RC and AH (288083) and EY (288083; 262177) are supported by the Research Council of Norway.