

## **Tilburg University**

## Maternal anxiety during pregnancy and reactivity, self-regulation and internalizing problems in childhood and adolescence

Van den Bergh, B.R.H.; van den Noortgate, W.; Muskens, M.E.W.; Lagae, L.

Published in: Early Human Development

Publication date:

Link to publication in Tilburg University Research Portal

Citation for published version (APA):

Van den Bergh, B. R. H., van den Noortgate, W., Muskens, M. E. W., & Lagae, L. (2007). Maternal anxiety during pregnancy and reactivity, self-regulation and internalizing problems in childhood and adolescence. *Early* Human Development, 83, 122-122.

## **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- · Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
  You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Download date: 06. Oct. 2022

P1-139 Maternal anxiety during pregnancy and reactivity, self-regulation and internalizing problems in childhood and adolescence

B.R.H. Van den Bergh<sup>1,2,3</sup>\*, W. Van den Noortgate<sup>3</sup>, M. Braeken<sup>3</sup>, L. Lagae<sup>3</sup>. <sup>1</sup>Tilburg University, The Netherlands, <sup>2</sup>Department of Welfare, Public Health and Family, Flemish Community, Brussels, Belgium, <sup>3</sup>University of Leuven, Belgium

E-mail: bea.vandenbergh@psy.kuleuven.be

Aims: There is good evidence that alterations of neurodevelopment underlying behavioral problems and psychopathology have their origins in prenatal life. We prospectively studied the relationship between maternal anxiety during pregnancy, temperament (defined as individual differences in constitutionally based reactivity and self-regulation), and internalizing problems (i.e., anxiety and depression) in childhood and adolescence.

Study design: In a prospective-longitudinal study maternal anxiety was measured at 12–22, 23–32 and 32–40 weeks of pregnancy (wp) with the State Trait Anxiety Inventory, in 86 nulliparae. Temperament and behavioral problems were measured at 8/9, 14/15 and 17 years of age with standardized questionnaires completed by mother, teacher and child. Data were analyzed with multilevel regression analysis.

Subjects: 52 to 72 mother-child pairs.

Outcome measures: At all ages, temperament was measured with questionnaires developed by Rothbart while internalizing problems were measured with the Child Behavior Checklist (CBCL/4-18).

Results: Maternal anxiety at 12-22 wp had a positive effect on internalizing problems (p < 0.05); 6% of the variance in internalizing problems was explained by a direct and 6% by an indirect effect (i.e., via influencing temperament) of antenatal anxiety. Temperament explained 26% of the variance in internalizing problems (p < 0.001).

Conclusions: Exposure to environmental factors during critical prenatal developmental periods – i.e., to high maternal anxiety at 12–22 wp – enhances the risk for developing internalizing problems. More research on the underlying causal mechanisms is needed to explain the direct and indirect effects of antenatal maternal anxiety, which seem to last until at least the age of 17.