

Prenatal influences on childhood psychological development

Citation for published version (APA):

Tore, E. (2021). *Prenatal influences on childhood psychological development*. [Doctoral Thesis, Maastricht University]. Maastricht University. <https://doi.org/10.26481/dis.20210630et>

Document status and date:

Published: 01/01/2021

DOI:

[10.26481/dis.20210630et](https://doi.org/10.26481/dis.20210630et)

Document Version:

Publisher's PDF, also known as Version of record

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

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 the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

www.umlib.nl/taverne-license

Take down policy

If you believe that this document breaches copyright please contact us at:

repository@maastrichtuniversity.nl

providing details and we will investigate your claim.

Valorisation addendum

Mental health problems affect 10%-20% of children and adolescents worldwide, remaining unrecognised or untreated in the majority of cases (1,2). The consequences of (untreated) childhood mental disorders are widespread, including substantial economic burden to the society, lifelong psychiatric conditions and overall poor quality of life. Identifying risk factors associated with the development of mental conditions in childhood that could represent targets for novel and efficacious prevention strategies is, therefore, of extreme importance.

The work presented in this thesis, which has been published in internationally acknowledged journals and presented in well-known scientific conferences, suggests that excessive gestational weight gain and poor maternal diet quality during pregnancy might be two risk factors of internalising and externalising problems in childhood. Even though findings should be confirmed in larger observational or intervention studies, the research presented in this thesis can be used in clinical practice to inform women of childbearing age of the effects of their diets and weight gain on their future offspring's mental health. In fact, since during pregnancy women tend to be more prone to change their behaviours in order to promote their children's health, with adequate support and accessible information, they would likely adopt a healthier lifestyle.

The results of this thesis can also be used to identify at-risk children before any behavioural symptom appear. We showed that apart from children born preterm and/or with a low birth weight, who undeniably represent the most vulnerable population, offspring of women with overweight or obesity who gained excessive weight or children prenatally exposed to a low-quality diet may necessitate professional care to develop to their full potential. Based on all the available evidence, multidisciplinary prevention programmes, with a focus on the creation of an emotionally supportive and protective family environment and on healthier lifestyle choices, could promote the well-being of the whole family.

In addition, this thesis discusses the role of genetic influences on childhood psychological development, identifying in the scarcity of studies with genetic information a limitation of the literature regarding prenatal influences on childhood mental health. The academic community can, therefore, use the work and considerations presented in this thesis as a starting point of future investigations, which should take advantage of the increasing availability and accessibility of genetic material. Nonetheless, however large the influence of genetics, environmental factors, including parental lifestyle, are still relevant. In fact, for complex characteristics such as psychological

disorders, a genetic influence does not imply genetic determination, and any given condition can be prevented or treated by changing the environment in which children develop.

To conclude, the prevention of childhood psychopathologies represents a unique opportunity to promote lifelong health, which should be considered as equally important as the prevention of other non-communicable diseases. Indeed, if health is more than the absence of disease but rather a “state of complete physical, mental and social well-being” (3), the pursuit of public health must include the full promotion of psychological well-being. The results of this thesis suggest that by tackling lifestyle choices we could promote not only physical but also mental health.

References

1. World Health Organization. Improving the mental and brain health of children and adolescents [Internet]. [cited 2021 April 18]. Available from: <https://www.who.int/activities/improving-the-mental-and-brain-health-of-children-and-adolescents>
2. Kieling C, Baker-Henningham H, Belfer M, Conti G, Ertem I, Omigbodun O, et al. Child and adolescent mental health worldwide: Evidence for action. *Lancet*. 2011;378(9801):1515–25.
3. World Health Organization. Constitution [Internet]. [cited 2021 April 27]. Available from: <https://www.who.int/about/who-we-are/constitution#:~:text=Health%20is%20a%20state%20of,belief%2C%20economic%20or%20social%20condition.>