



Universiteit
Leiden

The Netherlands

Neurodevelopmental impact of sex chromosome trisomy in young children: the regulation of emotion, cognition, and behavior

Kuiper, K.C.

Citation

Kuiper, K. C. (2023, September 6). *Neurodevelopmental impact of sex chromosome trisomy in young children: the regulation of emotion, cognition, and behavior*. Retrieved from <https://hdl.handle.net/1887/3638781>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/3638781>

Note: To cite this publication please use the final published version (if applicable).

Kimberly Kuiper, MSc.

**Neurodevelopmental Impact of Sex Chromosome Trisomy in Young Children:
The Regulation of Emotion, Cognition, and Behavior**

Leiden University
Faculty of Social and Behavioral Sciences
Clinical Neurodevelopmental Sciences

The research reported in this dissertation was funded by:
Nederlandse Organisatie voor Wetenschappelijk Onderzoek

ISBN

978-94-6473-155-2

Design/lay-out

Promotie In Zicht | www.promotie-inzicht.nl

© K.C. Kuiper, Leiden University, 2023

All rights reserved. No parts of this book may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronically mechanically, by photocopy, by recording, or otherwise, without prior written permission from the author.

Neurodevelopmental Impact of Sex Chromosome Trisomy in Young Children

The Regulation of Emotion, Cognition, and Behavior

Proefschrift

ter verkrijging van
de graad van doctor aan de Universiteit Leiden,
op gezag van rector magnificus prof.dr.ir. H. Bijl,
volgens besluit van het college voor promoties
te verdedigen op 6 september 2023
klokke 13.45 uur

door
Kimberly Charlotte Kuiper
geboren te Haarlem in 1990

Promotores

Dr. S. (Sophie) van Rijn

Prof.dr. H. (Hanna) Swaab

Promotiecommissie

Prof.dr. L.R.A. (Lenneke) Alink

Wetenschappelijk Directeur

Instituut Pedagogische Wetenschappen/
voorzitter

Prof. dr. M.V. (Maretha) de Jonge

Dr. P.A. (Peter) Bos

Prof.dr. S.H.M. (Stephanie) van Goozen

Prof.dr. J.I.M. (Jos) Egger

Radboud Universiteit

Prof.dr. H. (Hilgo) Bruining

Amsterdam UMC

Table of contents

Chapter 1	General introduction	7
Chapter 2	Early developmental impact of sex chromosome trisomies on Attention Deficit-Hyperactivity Disorder symptomology in young children	25
Chapter 3	The developmental impact of sex chromosome trisomies on emerging executive functions in young children: Evidence from neurocognitive tests and daily life skills	45
Chapter 4	Emotional reactivity and expressivity in young children with sex chromosome trisomies: Evidence from psychophysiological and observational data	73
Chapter 5	(Not) getting what you want: Frustration and emotion regulation in children with sex chromosome trisomies	95
Chapter 6	Neurocognitive and behavioral development in young children (1-7 years) with sex chromosome trisomy	115
Chapter 7	Summary and general discussion	131
	Nederlandse samenvatting en discussie (Summary and general discussion in Dutch)	153
	References	173
	Curriculum vitae	185
	List of publications	187
	Dankwoord (Acknowledgements)	189