



Universiteit
Leiden
The Netherlands

Preterm birth, long-term outcome: how an early start affects school-aged children

Jansen, L.

Citation

Jansen, L. (2023, April 12). *Preterm birth, long-term outcome: how an early start affects school-aged children*. Retrieved from <https://hdl.handle.net/1887/3594098>

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/1887/3594098>

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

PRETERM BIRTH, LONG-TERM OUTCOME:

How an early start affects school-aged children

Lisette Jansen

Preterm birth, long-term outcome: how an early start affects school-aged children

© 2023 - Lisette Jansen

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the author.

The research described in this thesis was performed at the Willem-Alexander Children's Hospital, the Department of Neonatology, in collaboration with Curium, department of Child and Adolescent Psychiatry of the Leiden University Medical Center, the Netherlands.

ISBN: 978-94-6458-975-7

Cover and illustrations: Emma Groot Wassink – www.mijmerinkt.nl

Lay-out and printing: Ridderprint – www.ridderprint.nl

Part of the MRI and follow-up assessment of the PROUD study was covered by an unrestricted grant from Chiesi Pharmaceuticals B.V.

All photo's in this thesis in which children are depicted are used with permission from their parents.

Preterm birth, long-term outcome: how an early start affects school-aged children

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 woensdag 12 april 2023

klokke 15:00

door

Lisette Jansen

geboren te Zoetermeer

in 1989

Promotor

Prof. dr. R.R.J.M Vermeiren

Co-promotores

Dr. S.J. Steggerda

Dr. C.M.P.C.D. Peeters – Scholte

Leden promotiecomissie

Prof. dr. E. Lopriore

Prof. dr. C. Rieffe

Prof. dr. J. Oosterlaan, Amsterdam Universitair Medisch Centrum, Amsterdam

Dr. G. Meijler, Isala Ziekenhuis, Zwolle

Voor Bren en Loïs

Table of contents

PART ONE	PATIENT JOURNEY	9
PART TWO	GENERAL INTRODUCTION	17
PART THREE	FOLLOW-UP OF CHILDREN BORN VERY PRETERM OVER THE YEARS	27
	Chapter 1 - Longitudinal follow-up of children born preterm: Neurodevelopment from 2 to 10 years of age.	29
PART FOUR	THE ROLE OF NEONATAL BRAIN INJURY	47
	Chapter 2 – Associations between neonatal magnetic resonance imaging and short- and long-term neurodevelopmental outcomes in a longitudinal cohort of very preterm children.	49
PART FIVE	SCHOOLPERFORMANCE IN CHILDREN BORN VERY PRETERM	71
	Chapter 3 – Classroom-evaluated school performance at nine years of age after very preterm birth.	73
PART SIX	QUALITATIVE RESEARCH	89
	Chapter 4 – Social-emotional and behavioural issues after very preterm birth: Parental and teachers experiences.	91
PART SEVEN	SUMMARY AND GENERAL DISCUSSION	111
	Summary	112
	General discussion	116
	Nederlandse samenvatting	126
PART EIGHT	APPENDICES	135
	Abbreviations	136
	List of publications	137
	Curriculum Vitae	139
	Dankwoord	140

