



Universiteit
Leiden
The Netherlands

Determinants of cognitive function in old age

Vliet, P. van

Citation

Vliet, P. van. (2010, November 10). *Determinants of cognitive function in old age*. Retrieved from <https://hdl.handle.net/1887/16134>

Version: Corrected 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/1887/16134>

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

Determinants of cognitive function in old age

Peter van Vliet

Printed by Ridderprint BV, Ridderkerk

Cover design and layout by Simone Vinke, Ridderprint BV

ISBN: 978-90-5335-325-7

© Peter van Vliet, 2010

No part of this thesis may be reproduced, stored in a retrieval system or transmitted in any form or by any means, without permission of the author or, when appropriate, of the publisher of publications.

Determinants of cognitive function in old age

Proefschrift

ter verkrijging van
de graad van Doctor aan de Universiteit Leiden,
op gezag van Rector Magnificus prof. mr. P.F. van der Heijden,
volgens besluit van het College voor Promoties
te verdedigen op woensdag 10 november 2010
klokke 15.00 uur

door

Peter van Vliet
geboren te Delft
in 1979

Promotie commissie

Promotor: Prof. Dr. R.G.J. Westendorp

Co-promotor: Dr. A.M. Oleksik

Overige leden: Prof. Dr. R.A.C. Roos
Prof. Dr. W.A. van Gool (AMC, Universiteit van Amsterdam)
Prof. Dr. D.J.H. Deeg (VUMC, Vrije Universiteit Amsterdam)

Words are very
Unnecessary
They can only do harm

Depeche Mode – Enjoy the silence

Contents

I.		9
Chapter 1.	Introduction	11
II.	Traditional metabolic risk factors, cognitive function and mortality in late-life	17
Chapter 2.	The influence of age on the association between cholesterol and cognitive function	19
Chapter 3.	Blood pressure associates positively with cognitive function in patients with structural brain damage	43
Chapter 4.	Cognitive decline precedes late-life longitudinal changes in vascular risk factors	59
Chapter 5.	Dynamics of traditional metabolic risk factors associate with specific causes of death in old age	73
III.	Apolipoprotein E variation, cognitive function in late-life, and risk of dementia	89
Chapter 6.	Plasma levels of apolipoprotein E and cognitive function in old age	91
Chapter 7.	Parental history of Alzheimer's disease associates with lower plasma apolipoprotein E levels	107
Chapter 8.	<i>APOE</i> genotype modulates the effect of serum calcium levels on cognitive function in old age	123
IV.		141
Chapter 9.	General discussion	143
Chapter 10.	Summary	155
Chapter 11.	Samenvatting (Dutch)	159
	List of publications	163
	Dankwoord	165
	Curriculum Vitae	167

