

I do as I am: understanding and leveraging identity to promote smoking cessation and physical activity Penfornis, K.M.

### Citation

Penfornis, K. M. (2025, December 4). *I do as I am: understanding and leveraging identity to promote smoking cessation and physical activity*. Retrieved from https://hdl.handle.net/1887/4284574

Version: Publisher's Version

Licence agreement concerning inclusion of doctoral

License: thesis in the Institutional Repository of the University

of Leiden

Downloaded from: https://hdl.handle.net/1887/4284574

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

# I do as I am Understanding and leveraging identity to promote smoking cessation and physical activity Kristell Maryse Penfornis

Design: Jerboni

Layout: Proefschriftmaken
Printing: Proefschriftmaken
ISBN/EAN: 978-94-6510-914-5

The research presented in this dissertation was undertaken at the Health, Medical and Neuropsychology Department, Institute of Psychology, Leiden University, The Netherlands.

The work within this dissertation was conducted as part of the multidisciplinary research project *Perfect Fit*. This research received funding from the Netherlands Organisation for Scientific Research (NWO) program Commit2Data - Big Data & Health (project number 628.011.211). The program was funded by the following parties: NWO, the Netherlands Organisation for Health Research and Development (ZonMw), Hartstichting, Ministry of Health, Welfare and Sport (VWS), Health Holland, and the Netherlands eScience Center. The chapters and associated publications reflect only the authors' views and the funders are not liable for any use that may be made of the information contained herein.

Chapters 2, 3, 4, 6 and 7 of this dissertation present newly conducted research within the scope of the interdisciplinary *Perfect Fit* project. Study 3 in Chapter 6 falls outside the formal scope of *Perfect Fit*, but the data analyses and manuscript preparation were undertaken within the project due to the strong thematic alignment with its objectives. Chapter 5 and Study 3 in Chapter 6 draw on the same overarching dataset. However, they examine different variables and subsets of data to address distinct research questions.



Copyright 2025 © Kristell M. Penfornis, Leiden, The Netherlands.

This thesis is protected by international copyright law. All rights reserved. No part of this thesis may be reproduced, stored, or transmitted in any form or by any means without prior permission of the author, or when applicable, of the publishers of the scientific papers.

## I do as I am

Understanding and leveraging identity to promote smoking cessation and physical activity

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 donderdag 4 december 2025 klokke 16.00 uur

door

Kristell Maryse Penfornis geboren te Lagny-sur-Marne, Frankrijk in 1992

### **Promotor:**

Dr. W.A. Gebhardt

# **Co-promotor:**

Dr. E. Meijer

### Promotiecommissie:

Prof. Dr. H.E. Hulst (Wetenschappelijk Directeur Instituut Psychologie/ Voorzitter)

Prof.dr. M.A. Adriaanse

Prof.dr. R. West (University College London)

Prof.dr. D.E. Atsma (Leiden University Medical Center)

Dr. E.C.A. Mertens



# **Table of Contents**

Chapter 1 –	General introduction	13
Chapter 2 –	Mapping the evidence on identity processes and identity-related interventions in the smoking and physical activity domains: A scoping review protocol	31
Chapter 3 –	Conceptualization, operationalization and role of identity in physical activity and smoking in individuals aged forty-five and over: A systematic scoping review	48
Chapter 4 –	The effect of identity-related interventions on physical activity- and smoking-related identities and behavior: A mixed-methods systematic review	115
Chapter 5 –	My future-self has (not) quit smoking: An experimental study into the effect of a future-self intervention on smoking-related self- identity constructs	179
Chapter 6 –	User experiences with digital future-self interventions in the contexts of smoking and physical activity: A mixed methods multistudy exploration	211
Chapter 7 –	Digital future-self interventions to promote physical activity: Perspectives of minimally active middle-aged and older adults	261
Chapter 8 –	Summary and General discussion	283
Appendices	Supplement 1 – Perfect Fit deliverable 1 Supplement 2 – Perfect Fit deliverable 2 Dutch summary French summary Acknowledgments Curriculum Vitae	311 313 315 333 337 341 343
	List of publications	545