Disentangling the relationship between depression, obesity and cardiometabolic disease

Alshehri, T.

Citation

Alshehri, T. (2023, November 30). *Disentangling the relationship between depression, obesity and cardiometabolic disease*. Retrieved from https://hdl.handle.net/1887/3665477

LIST OF PUBLICATIONS IN THIS THESIS

Alshehri, T., Boone, S., de Mutsert, R., Penninx, B., Rosendaal, F., le Cessie, S., . . . Mook-Kanamori, D. (2019). The association between overall and abdominal adiposity and depressive mood: A cross-sectional analysis in 6459 participants. *Psychoneuroendocrinology, 110*, 104429. doi:10.1016/j.psyneuen.2019.104429

Bot, M., Milaneschi, Y., Al-Shehri, T., Amin, N., Garmaeva, S., Onderwater, G. L. J., . . . Consortium, Bbmri-Nl Metabolomics. (2020). Metabolomics Profile in Depression: A Pooled Analysis of 230 Metabolic Markers in 5283 Cases With Depression and 10,145 Controls. *Biol Psychiatry, 87*(5), 409-418. doi:10.1016/j.biopsych.2019.08.016

van der Spek, A., Stewart, I. D., Kühnel, B., Pietzner, M., Alshehri, T., Gauß, F., . . . Amin, N. (2023). Circulating metabolites modulated by diet are associated with depression. *Mol Psychiatry*. doi:10.1038/s41380-023-02180-2

Alshehri, T., Mook-Kanamori, D. O., de Mutsert, R., Penninx, B. W., Rosendaal, F. R., le Cessie, S., & Milaneschi, Y. (2023). The association between adiposity and atypical energy-related symptoms of depression: A role for metabolic dysregulations. *Brain Behav Immun, 108*, 197-203. doi:10.1016/j.bbi.2022.12.005

Alshehri, T., Mook-Kanamori, D. O., Willems van Dijk, K., Dinga, R., Penninx, Bwjh, Rosendaal, F. R., . . . Milaneschi, Y. (2021). Metabolomics dissection of depression heterogeneity and related cardiometabolic risk. *Psychol Med*, 1-10. doi:10.1017/s0033291721001471

Alshehri, T., Milaneschi, Y., de Mutsert, R., Winters-van Eekelen, E., Boone, S., Verkouter, I., ..., Mook-Kanamori, D. Symptomatology of depression and onset of cardiometabolic diseases - A 7-year follow-up study. (In preparation)

A

PORTFOLIO

Oral and Poster Presentation	Year	Credit
Annual Dutch Diabetes research (NVDO). The Netherlands.	2017	0.25
Netherlands Epidemiological Conference (WEON) Science for society research. The Netherland	2018	1.00
The translational neuroscience network (TN2) conference. Innovation in psychiatry, neurostimulation and inflammation. The Netherlands	2018	0.25

Congresses and Symposia		
The Netherlands association for the study of obesity (NASO) scientific spring meeting	2017	0.75
BBMRI-omics: Introduction and Hands-on Application	2017	0.25
Netherlands Epidemiological Conference (WEON) Epidemiological methods for implementation research. The Netherland	2018	1.00

Courses, Seminars, and Master Classes		
Basic Methods and Reasoning in Biostatistics, Boerhaave Instituut, Leiden, the Netherlands	2017	1.50
Epidemiology "An Introduction" (Based on the book by Kenneth Rothman), Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2017	2.00
Regression Analyses (advances course), Boerhaave Instituut, Leiden, the Netherlands	2017	1.50
Survival Analyses, Boerhaave Instituut, Leiden, the Netherlands	2017	1.50
Analysis of Repeated Measurements, Boerhaave Instituut, Leiden, the Netherlands	2017	1.50
Clinical Epidemiology Principals, Methods, and Applications for Clinical Research. Based on the book: "Clinical Epidemiology" by D.E. Grobbee & A.W.Hoes, Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2018	3.00
Causal Inference (Hernan), Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2018	3.00
Systematic Reviews and Meta-Analyses, Boerhaave Instituut, Leiden, the Netherlands	2018	1.00
International course on clinical Epidemiology Schiermonnikoog, Boerhaave Instituut, Leiden, The Netherlands	2019	2.00

Weekly Research Lunch, Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2016-2023	3.00
Weekly Capita Selecta, Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2016-2023	3.00
Bi-weekly Journal Club of the NEO study, Department of Clinical Epidemiology, Leiden University Medical Center, the Netherlands	2016-2023	3.00
Weekly (NESDA) lab meeting, Department of Psychiatry, Amsterdam UMC. the Netherlands	2018-2022	3.00
The Netherlands Study of Depression and Anxiety (NESDA)	2018-2022	3.00

Student Monitoring and Teaching	Year	Workload Hours
Tutoring Working Groups of Courses for Bachelor/ Master Students	2017-2023	40
Supervision of Critical Appraisal of Topic (CAT) Project, Bachelor of Medicine student (Linda Y.S. Jans)	2022	5
Supervision of Master students (Michelle Sinteur and Jeff Kamerman)	2020	20
Supervision of Bachelor students (Sem Dreier Gligoor and Mary-Ann Van Der Linden)	2022	40

Generic and Transferable skills Training by the Graduate School of Leiden University	Year	Workload Hours
PhD Introductory Meeting	2017	4
Communication skills in science	2017	40

Other activities	Year
Reviewing scientific epidemiological publications	2022-2023

A

ACKNOWLEDGMENT

I would like to express my heartfelt gratitude to everyone who helped me through this most rewarding journey.

First and foremost, I am grateful to my thesis promotor, Prof. dr. Frits R. Rosendaal, and co-promotores, Dr. Yuri Milaneschi and Dr. Dennis O. Mook-Kanamori for their unwavering guidance, encouragement, and support that created an open, productive, and motivating environment for me to grow both academically and personally. It is such a privilege that I will always cherish to be part of your team. Still, my deepest hope is to build channels of collaboration in the future. Frits, thank you for believing in my potential and accepting me in this PhD position in the clinical epidemiology department. Thank you for sharing your knowledge and for your quick and valuable insights. Dennis, thank you for always telling me with your contagious enthusiasm and uplifting nature not to get disappointed when I make mistakes or when my manuscripts come back to me all in red. Thank you for all your help and assurance and for being the bridge that connected me to Leiden in this transformative journey. Yuri, this book will never exist without you; your dedication, passion, and knowledge of the topic and education are inspiring. Thank you for your continuous enriching discussions, many great ideas, answering my questions, and sometimes searching for answers with me. I sincerely appreciate your detailed and constructive scientific writing feedback that I will use for the rest of my academic career and your constant compassionate supervision, even in challenging times.

Furthermore, I would like to express my appreciation to all participants of the Netherlands Epidemiology of Obesity (NEO) study and the Netherlands Study of Depression and Anxiety (NESDA) and all cohorts featured in chapters 3 and 4. I am also grateful to the support and data management teams who made the data available for us to easily access and analyze. My special thanks to Ingeborg de Jonge.

Additionally, I would like to thank all "Epi-department" colleagues for creating the welcoming, educational, and productive environment. Yvonne Souverein, thank you for always solving my logistics problems and your friendly and welcoming nature. Tamara Wienen-Groen, thank you for your help with the courses and the unlimited supply of coffee capsules. Prof. dr. Saskia le Cessie and Dr. Renée de Mutsert, thank you for your precise and valuable feedback and discussions.

Being a part of the "Epi-promovendi" team has enriched my professional life and gifted me with lasting friendships. Special mention to Dr. Carolina Touw, my roommate, who was the source of inspiration. Thank you for laughing with me

when I laugh and crying with me when I cry, and everything in between. Sebastiaan C. Boone, thank you for being my first guide in the epidemiology world. Dr. Ruifang Li-Gao, thank you for your support, and promising fruitful collaboration. Dr. Jungyeon Choi, Denise Zielinski, Dr. Yiman Wang, thank you for your kindness, generosity, and help.

I am also incredibly proud of spending some time in the Department of Psychiatry, Amsterdam UMC. I would like to thank my colleagues and my PhD peers, for the great discussions in the lab meetings and junior meetings. Special mention to Prof. dr. Brenda W. J. H. Penninx, your expertise and insight sat the cornerstone of this thesis. Thank you for your ever-clear, constructive, and encouraging feedback. Additionally, many thanks to Dr. Mariska Bot, Hilde de Kluiver and Dr. Richard Dinga.

I am grateful for my friends on many continents who have been an integral part of my life and my support system, no matter how physically we became distant from each other. Prof. dr Nada Altassan, my fantastic life mentor. This journey only happened because you alerted me that the Leiden group (Frits and Dennis) were in Riyadh, intending to interview a Saudi candidate for PhD position in the Clinical Epidemiology department. Thank you for inspiring me since I met you in 2003. Shahira Alassiri, thank you for your lifelong friendship through thick and thin. Amal Al-Hussain, thank you for our very therapeutic conversations. Davide Lionitti, Annette Baker, and Javiera Paz thank you for your love, support, and endless fun outings and trips. Ana Santiago, thank you for opening your heart and home to me.

Lastly, I would like to thank my parents, Ghyytha Alamri and Mohammad Alshehri for always encouraging me to invest my time and effort in what makes me happy. To my siblings, thank you for all the love, fun, and friendship you have offered me. Special thanks to my youngest teacher of wholehearted living, my niece, Manal Mulla. Dr. Nikita Lebedev, I want to express my appreciation for your impact on my life. Thank you for all the fun, artsy, food and drink experiences and adventures that fueled me to be productive.

A

CURRICULUM VITAE

Tahani Alshehri was born on the 23rd of February 1984 in Riyadh, Saudi Arabia. She completed high school in 2001 in Riyadh. She obtained her BSc from the Biochemistry department in 2005 at King Saud University in Riyadh, graduating with First Class Honours. After graduation, she volunteered to work as a technician at the same department, where she was hired as a demonstrator in 2007. In the same year, she joined the Master's program in the biochemistry department. During her Master's study, she gained three years of experience in a specialized molecular biology laboratory in Behavior Genetics (Genetic Department/Research Center/King Faisal Specialist Hospital and Research Center. Riyadh, Saudi Arabia). Her Master's thesis was "Genotype-phenotype correlation in Saudi β-thalassemia patients". In January 2011, she earned her MSc degree of Sciences in Biochemistry from King Saud University. In January 2012, she moved to Iowa City, Iowa, United States, to study English as a second language at Iowa Intensive English Program (IIEP). She was back in Riyadh in January 2014, where she resumed her duties as a demonstrator and, soon after that, was promoted to lecturer in the biochemistry department in 2015. In 2016, she moved to Leiden, the Netherlands, to pursue her PhD in the clinical epidemiology department under the supervision of Prof. dr. F. R. Rosendaal, Dr. D. O. Mook-Kanamori, and Dr. Y. Milaneschi. Tahani's research topic focused on the association between obesity and depression. In her research, she investigated this association from an epidemiological, biochemical (metabolomics), and genetic point of view. In December 2022, she moved back to Riyadh and resumed her work at King Saud University. After earning her PhD, she will be promoted to assistant professor at the same university.