

The Risk Factors Associated with Dementia and Cognitive Decline

Simon Pierce*

Department of Medicine, The King's University Edmonton, Alberta, Canada

ABOUT THE STUDY

The study of factors that increase the risk of dementia and cognitive decline has grown significantly over the past 20 years. This prompted a global petition to the G8 Dementia Summit in 2013 asking governments to support study into modifiable risk factors and dementia prevention. The field is now beginning to see reviews of reviews, as numerous longitudinal cohort and medical record studies have examined dementia risk factors and combined them into systematic reviews and meta-analyses. However, recent attention has also concentrated on a critical analysis of the gaps in the available body of evidence. The contrast between Epidemiological evidence and data from clinical trials is a crucial component of the latter. Where observational risk factor biostatistics results frequently do not match those of diagnostic and therapeutic trials for dementia outcomes. The evidence supporting risk reduction is still comparatively weak despite the consensus regarding the major dementia risk factors. Here, we look into potential explanations for the findings that differ between risk factor epidemiology and risk reduction trials. Leading international experts and the Alzheimer's Association International Society to Advance Alzheimer's Research and Treatment (ISTAART) Professional Interest Area (PIA) on Clinical Trials and Methodology are called upon to assess and synthesize the available data, draw attention to any inconsistencies, and provide recommendations. Seven exemplary core risk factors for altered dementia risk have been chosen. There is a tenable explanation for how each of these risk factors and cognition are related. Though, trial evidence for risk reduction is still lacking. The risk factors chosen are those that lend themselves to blinded pharmacological intervention in order to lessen the potential for bias in the trial evidence. These

include the risk factors for which there are already pharmaceutical treatments in use, such as Type 2 diabetes and antidiabetic medications, dyslipidemia and statins, blood pressure and anti-hypertensive medications, inflammation and Non-Steroidal Anti-Inflammatory Drugs (NSAIDs), and Oestrogen and Hormone Replacement Therapy (HRT).

The study is divided into seven distinct sections, each of which focuses on one of these risk factors and was created independently by experts in the relevant field. Each section includes a summary of the justification, potential biological mechanisms, epidemiological evidence for the risk factor, clinical trial evidence for risk reduction, and recommendations for additional observational and clinical trial research. Although reducing the risk of dementia has never been more crucial, there is not yet enough evidence, at least for the risk factors, to support specific guidelines. There are particular areas where the evidence from clinical trials and observational studies differ across the seven risk factors.

CONCLUSION

Although there have been numerous prospective, randomized, placebo-controlled clinical trials that have failed to demonstrate the effectiveness of statin therapy in lowering the incidence of cognitive decline in dementia, the data supporting its use from observational studies is overwhelmingly in favor of more research in this area. In an effort to address the crucial confounders of inclusion and exclusion criteria for participants, statin selection, statin dose, duration of exposure, and timing in the life course when the exposure should maximally exert its influence, the field is now poised to reflect on and reconsider fundamental clinical trial flaws in the design and conduct of such research.

Correspondence to: Simon Pierce, Department of Medicine The King's University Edmonton, Alberta, Canada, E-mail: smnprc@gmail.com

Received: 28-Oct-2022, Manuscript No. JMDM-22-20729; **Editor assigned:** 31-Oct-2022, PreQC No. JMDM-22-20729 (PQ); **Reviewed:** 15-Nov-2022, QC No. JMDM-22-20729; **Revised:** 22-Nov-2022, Manuscript No. JMDM-22-20729 (R); **Published:** 29-Nov-2022, DOI: 10.35248/2168-9784.22.11.392.

Citation: Pierce S (2022) The Risk Factors Associated with Dementia and Cognitive Decline. J Med Diagn Meth.11:392.

Copyright: © 2022 Pierce S. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.
