Editorial

Dementia, Risk, Risk Reduction, and Translation into Practice: An International Research Network for Dementia Prevention (IRNDP) Special Issue

Kaarin J. Anstey[a,b] and Ruth Peters[a,b,*]
[a]*University of New South Wales, Sydney, Australia*
[b]*Neuroscience Research Australia, Sydney, Australia*

In this special issue from the International Research Network on Dementia Prevention (IRN DP), we present new research from around the globe examining the potential risk factors for dementia. We report on some of the ongoing and crucial risk reduction trials and highlight some of the population level considerations and the remaining evidence gaps. The articles on the risk factors associated with dementia range from analyses of new and established observational cohort studies [1–3] to systematic reviews [4, 5]. And from factors more recently linked to dementia risk, including poor kidney function, chronic obstructive pulmonary disease, and air pollution [2, 5, 6] to the more established, obesity, social isolation, vascular and lifestyle factors such as diabetes or smoking [1, 4, 7]. We report protocols for two of the many ongoing trials in dementia risk reduction, the Systematic Multi-Domain Alzheimer's Risk Reduction Trial (SMARRT) [8] and the Maintain Your Brain trial [9], important adherence data from the Australian Imaging Biomarkers and Lifestyle (AIBL) active-study [10], an evaluation of an online health education tool for older adults in Malaysia [11], and some early work in mice [12]. An associated and thought provoking

editorial from Brayne and Richard raises related questions about future trial design, the intensity of intervention, and the populations to target [13]. We also begin to examine some of the gaps in the evidence and we draw attention to the lack of data across the age range and in global populations [14, 15]. In a comprehensive umbrella review of systematic reviews, Anstey and colleagues summate the observational evidence on risk factors for Alzheimer's disease, vascular dementia, and any dementia, and highlight the lack of evidence for many risk factor exposures in midlife, a lack of data on risk factors for vascular dementia and from low and middle income countries [15]. The editorial from Glymour and Whitmer takes this further highlighting the need for a life-course understanding, and the importance of risk factor prevalence or saturation in particular populations or those with relatively small numbers (for example indigenous Australian populations) [14, 16]. Glymour and Whitmer also helpfully suggest new ways in which we can start to conceptualize, examine, and combine our data to gain the greater understanding we need for future risk reduction [14]. Finally, we report on life course and population-based approaches to dementia risk reduction. From cognitive trajectories over time in a Canadian population [17], temporal trends in incident mild cognitive impairment in the United States [18] to the implementation of demen-

*Correspondence to: Ruth Peters, Neuroscience Research Australia, Barker Street, Randwick, Sydney, NSW 2031 Australia. E-mail: r.peters@neura.edu.au.

tia risk reduction policies in the United Kingdom [19] and the identification of potentially hidden cases in Japanese communities [20]. The importance of understanding the patterns of risk factor exposure, lifestyle, and available resources is also discussed and this is highlighted in particular with a comparison of population attributable risk for common risk factors in three very different Portuguese speaking countries, Portugal, Brazil, and Mozambique [21]. Sexton and Yaffe, in an associated editorial, draw together the key threads in this area. They highlight the nuanced nature of practical dementia risk reduction including the need for greater understanding at national, regional, and local levels [22].

This IRNDP issue demonstrates impressive progress in dementia prevention research and provides an invaluable collation of recent research and an up to date overview of the dementia prevention evidence base. Yet it also serves to highlight the substantial remaining evidence gaps and the next steps forward in this area of research. We have already achieved a lot but now is the time to refine and develop our understanding to be able to build the next generation of dementia risk reduction interventions with translatable and applicable policies to protect human cognitive health.

DISCLOSURE STATEMENT

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