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ARTICLE

'Brainwork practices': responsibilisation of dementia prevention in Australian aged care discourse

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Abstract

Successful ageing continues to be a key theme in contemporary ageing discourses, where good physical and cognitive health in older age is an individualised responsibility. This paper explores how Australian aged care stakeholder discourse contributes to constructions of self-responsibility for brain health and dementia prevention in older persons. Brain health advice messages about diet, exercise and 'brain fitness' by aged care stakeholders are argued to construct a moral framework of 'brainwork practices' to prevent or delay dementia. This study performed discourse analysis of a sample of public online aged care stakeholder documents (N = 170) to reveal three key concepts in discursive constructions of dementia. The first concept characterises dementia as a disastrous force to be opposed; the second is a biomedical concept of dementia as preventable (or able to be delayed) in a 'successful' older age, while the third reflects neurocultural ideas that fetishise perfect memory as the best defence against cognitive decline and dementia. Identifying this matrix of responsibilising 'brainwork practices' messages by aged care stakeholders makes a contribution within social gerontology to revealing neoliberal conceptions of older age as an outcome of lifestyle and consumer choices, where dementia is constructed as 'failed' or 'unsuccessful' ageing.

Keywords: dementia; dementia prevention; successful ageing; discourse analysis; neuroculture; responsibilisation

Introduction

A major theme in public discourse on contemporary ageing is how to age 'successfully'. 'Good' health in successful older age is discursively presented as the responsibility of 'good' citizens in an individual duty to maintain and enhance physical and cognitive health through lifestyle and consumer practices (Cardona, 2008; Brown and Baker, 2013; Latimer, 2018; Pack *et al.*, 2019; Van den Bogaert *et al.*, 2020). Further, successful ageing discourses contribute to discursive constructions

of cognitive decline and dementia as the outcome of individual lifestyle choices and capable of delay or even prevention by adoption of brain health advice to self-manage the ageing brain (Pack *et al.*, 2019; Mitchell *et al.*, 2020; Van den Bogaert *et al.*, 2020; Petersen and Schicktanz, 2021). Brain health advice is the articulation in media and public discourses of normative biomedical recommendations for individuals on how to reduce risk of cognitive decline and dementia (Lawless and Augoustinos, 2017). Brain health advice also reflects hypercognitive 'neurocultural' discourses focused on measuring, classifying and enhancing cognition, and problematising *all* memory loss or cognitive decline (Katz and Peters, 2008; Williams *et al.*, 2012; Wade, 2018).

Emerging from a study of Australian aged care stakeholder public discourse, this paper explores the role of brain health advice in the discursive construction of dementia and self-responsibilisation of cognitive health and the ageing brain. It is argued that brain health advice, a recurrent theme in Australian aged care public discourse, constructs a responsibilising framework of 'brainwork practices' that promotes individualisation of cognitive health in older age. These findings are consistent with 'bodywork practices' for the ageing body (Pack *et al.*, 2019) and conceptualise dementia as the outcome of failure to perform cognitive biocitizenship obligations.

Dementia discourses

Dementia is a contested construction of multiple intersecting discourses and the subject of ongoing debates between biomedical, socio-cultural, feminist, disability and queer scholarship, as well as lived experience literatures (Clarke, 2006; Katz and Peters, 2008; Behuniak, 2011; Doyle *et al.*, 2012; Peel, 2014; Swaffer, 2014; Zeilig, 2014; Cuijpers and van Lente, 2015; Bülow and Holm, 2016; Higgs and Gilleard, 2017; Hillman and Latimer, 2017; Livingston *et al.*, 2017; Brookes, 2018; Latimer, 2018; Leibing and Schicktanz, 2020; Bailey *et al.*, 2021; Fletcher, 2021; Shildrick, 2021). Medico-scientific research about dementia risk and prevention flows from biomedical discourses, is received and translated by media framings, and finally, is reflected and articulated in public discourses on dementia and healthy ageing. Acknowledging the interplay of these various discourses, this paper aims to foreground the significance of successful ageing in discursive constructions of ageing and dementia in Australian aged care public discourse. While successful ageing is an inter-disciplinary research field transecting multiple literatures, this paper adopts a critical analysis of biomedical successful ageing in public discourse promoting individualised responsibility for cognitive health in older age.[1] However, it is important to emphasise this discursive approach does not critique public health 'successful' or 'healthy' ageing policies themselves.

This paper is in three parts. The first part provides background to the research topic, defines brain health advice, and situates it within existing literature on discourses of dementia media framing, successful ageing and neuroculture. The second part sets out the study, including the method of selecting the sample of aged care stakeholder documents and analysis of aged care stakeholder brain health advice. The third part describes three key interconnected findings about brain health advice emergent in the sample of aged care public discourse: dementia

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is a dangerous threat, dementia can (and should) be prevented through lifestyle and consumer choices consistent with successful ageing, and any cognitive decline is problematic. This leads to a discussion of the primary finding of a matrix of 'brain-work practices' that has meaning for constructions of dementia as 'unsuccessful' ageing and failed citizenship within contemporary discourses of successful ageing.

Background

Dementia in Australia

Australia's ageing population has raised public awareness and anxiety about dementia-related health and social challenges. Alongside reports of the increasing proportion of older persons in the population, dementia is often characterised as a 'disaster', while the caring and financial 'burden' of dementia is a common feature of Australian public talk on ageing (Doyle *et al*., 2012; Johnstone, 2013). In both social and medical terms, the 'impact' of dementia has been culturally conceptualised as an 'unstoppable force' (Zeilig, 2014: 260; Hillman and Latimer, 2017: 2). Public headlines on the dementia 'epidemic', 'tsunami' or 'invasion' frame the condition as a 'vast, natural or monstrous force that we must fight' (Zeilig, 2014: 261). Yet, although the majority of residents in residential aged care have a diagnosis of dementia,[2] dementia is not well cared for in the aged care system. The recent Royal Commission into Aged Care Quality and Safety made findings of inadequate training in dementia care, overuse of medication and restraints, isolation, and disproportionate effects of COVID-19 (Royal Commission into Aged Care Quality and Safety *et al*., 2021: 100). While the Australian aged care discourse is broadly formed from media, government, commercial and public talk about ageing and aged care, this paper draws on a study of Australian aged care public discourse to explicate the role of aged care stakeholders in constructions of dementia in Australia.

Successful ageing in public discourse

Successful ageing is an enduring theme that has positioned itself at the intersection of contemporary scientific and cultural concerns about ageing (Bülow, 2014: 68). While various models of successful ageing exist in medico-scientific discourses, the biomedical model originally advanced by Rowe and Kahn (1987) has dominated ageing discourses (Bowling and Dieppe, 2005; Kusumastuti *et al*., 2016).[3] Rowe and Kahn (1997: 439) defined successful ageing to encompass 'three distinct domains: avoidance of disease and disability, the maintenance of high physical and cognitive function, and sustained engagement in social and productive activities'. Challenging the established view that disease and disability were unavoidable in older age, Rowe and Kahn (1997: 434–437) proposed the ageing process could be modified by lifestyle factors such as diet, exercise and social activity. In revealing a distinction between inevitable age-dependent, and malleable age-related, decline, successful ageing theories have powerfully influenced a shift towards 'optimisation and enhancement' approaches to older age (Thuesen *et al*., in press). Successful ageing was further developed to include psychological and socio-cultural perspectives (Baltes and Baltes, 1990) and has ongoing application in contemporary fields such as reablement (Thuesen *et al*., in press) and creative ageing (Cho and Chang, in press).

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Nevertheless, in focusing on objective criteria, the biomedical model of successful ageing is critiqued for excluding heterogenous lived experiences of ageing and subjective preferences of older persons themselves (Bowling and Dieppe, 2005; Timonen, 2016). Further, reception and translation of biomedical successful ageing into public discourse is reproduced in neoliberal-infused healthy ageing recommendations that allocate responsibility to individuals for their own health and wellbeing in later life (Asquith, 2009; Timonen, 2016). The ideal of an individualised successful age was conceptualised by Rowe and Kahn themselves:

> Our main message is that we can have a dramatic impact on our own success or failure in aging. Far more than is usually assumed, successful aging is in our own hands … To succeed … means having desired it, planned it, worked for it … we regard [successful ageing] as largely under the control of the individual … Successful aging is dependent upon individual choices and behaviours [and] can be attained through individual choice and effort. (Rowe and Kahn, 1998: 18, 37)

As a result, regimes for successful ageing – advice on how to maintain and enhance physical and mental fitness in older age through exercise, diet, social, self-care and consumer behaviours – have become common in health and ageing discourses. Biomedical successful ageing has been widely received into media and public discourse – *e.g.* health insurance publications (Van den Bogaert *et al.*, 2020) and social media 'tweets' (Makita *et al.*, 2021) – and contributed to cultures of ageing where activity, ability and independence are the preferred metrics of a life lived 'successfully' in older age (Cardona, 2008; Pack *et al.*, 2019).

Responsibilisation of the ageing brain

The advocation of successful ageing regimes in public discourse form normative practices for older persons, a 'moral framework' on how to deal with the ageing body as an 'enactment of citizenship obligations' (Cardona, 2008: 481; Pack *et al.*, 2019; Van den Bogaert *et al.*, 2020). Shifting accountability for 'achieving' a successful older age to the individual has culminated in the 'responsibilisation of ageing' (Asquith, 2009; Latimer, 2018: 842).

'Responsibilisation', as a form of 'governmentality' identified by Foucault, is the process whereby individuals and communities are simultaneously liberated, and accountable, to define and achieve their own future and wellbeing (Rose, 1996: 328, 2000). Termed 'ethopolitics' by Rose, this 'politics of conduct … reconstructs citizens as moral subjects of responsible communities' (Rose, 2000: 1395). Responsibilised citizens must be active in self-governing 'recipes and routines for the conduct of life' (Rose, 2000: 1402). In the field of public health, individuals are responsibilised to safeguard and improve their own health and capacity (Petersen, 1997; Brown and Baker, 2013). Against neoliberal approaches to health care, responsibilised individuals are constructed as autonomous and active citizens able to pursue and protect their wellbeing with disciplines of self-care (Brown and Baker, 2013; Liebenberg *et al.*, 2015). Within these health-care systems, 'risky' individuals who fail to self-manage their health risks are marginalised for lacking self-control (Petersen, 1997: 198) and failing in their citizen obligations (Liebenberg *et al.*, 2015: 1008).

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Neoliberal health policies that responsibilise 'individual citizen-consumers' for the self-governance of health and wellbeing (Brookes, 2021: 2213) reimagine older age as subject to management, manipulation and the target of consumer markets of ageing (Cardona, 2008: 479; Asquith, 2009: 256; Brown and Baker, 2013: 13; Timonen, 2016: 27; Latimer, 2018: 842). In the same way as the term 'lifestyle disease' denotes ill-health as the outcome of 'self-inflicted' choices (Brookes, 2021: 2217), responsibilisation of the ageing body (and brain) may contribute to assessments of blame for failing to make proper choices for successful older age (Brown and Baker, 2013: 13; Peel, 2014; Latimer, 2018).

Successful ageing frameworks articulated in public discourse promote responsibility for self-care of the ageing brain through brain health advice and discursively construct individual accountability for dementia in older age (Katz and Peters, 2008; Williams *et al.*, 2012; Peel, 2014; Lawless and Augoustinos, 2017; Lawless *et al.*, 2018; Mitchell *et al.*, 2020; Bailey *et al.*, 2021). Framing the ageing brain as a risk to be responsibly self-managed, brain health advice represents normative biomedical recommendations on how individuals may reduce their risk of cognitive decline and prevent dementia in the form of advice on diet, exercise, consumption and 'brain fitness' (Mitchell *et al.*, 2020: 5). Within health systems that 'evaluate, manage and track citizens … who are 'at risk' or whose behaviour is "risky"' (Liebenberg *et al.*, 2015: 1008), brain health advice is promoted to self-manage the (risky) ageing brain. Responsibilisation of ageing in public discourse renders individual brain health a signifier of good citizenship and the target of successful ageing regimes. Growing emphasis on self-care for cognitive health positions the performance of brain health advice to 'boost' the ageing brain as the best defence against cognitive decline and dementia.

Neuroculture and boosting the ageing brain

The term 'neuroculture' has been used to refer to widespread cultural and intellectual adoption of neuroscience into contemporary life and public discourse, and notably its normative influence on societal values and consumer practices (Frazzetto and Anker, 2009: 815; Williams *et al.*, 2012; Bülow, 2014; Wade, 2018). Situated within shifting notions of health and illness, ability and disability, treatment and enhancement, neuroculture brings neuroscientific knowledge, such as brain imaging, genetics and pharmaceuticals, to influence on popularised cultural and social understandings of the brain and its processes (Williams *et al.*, 2012: 64). Neuroculture contributes to consumer markets of brain health in the form of expert advice on how to 'boost' or enhance memory and cognition, where 'everybody must try to remember everything' (Katz and Peters, 2008: 354).[4] Widespread reception of scientific research on neuroplasticity has shaped neurocultural conceptions of 'neuro-enhancement' that promote brain 'training' and 'fitness' practices to keep the brain in its prime, regardless of age (Wade, 2018: 297).

Against biomedical discourses of successful ageing, neurocultural practices have relevance for the ageing brain by shaping conceptual boundaries of 'normal' cognition and memory in natural ageing. In neuroculture, any 'forgetting … is increasingly regarded as an act of "failure"' (Williams *et al.*, 2012: 71). Within neurocultural discourses adopting biomedical definitions of 'normal' and 'deficient'

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cognitive function, surveillance of the ageing brain aims to identify persons with early cognitive decline before they 'slip' into dementia. In particular, the boundary of mild cognitive impairment as 'pre-' or 'early' dementia pathologises all memory loss and justifies biomedical inspection and intervention against the threat of dementia (Katz and Peters, 2008: 353; Williams *et al.*, 2012: 71). Positioning the ageing brain itself as 'risky', neurocultural practices build on negative framing of dementia as disaster and successful ageing discourses to promote brain health advice as valorised labour to prevent, delay or avoid dementia (Wade, 2018).

The discursive intersection of successful ageing and neurocultural frameworks positions the ageing brain as both 'promise and peril' to be 'diligently laboured upon' in order to avoid cognitive decline and dementia (Wade, 2018: 297). These 'brain-boosting' regimes are found in brain health advice instructing older persons to follow expert biomedical recommendations on how to prevent or delay the risk of mild cognitive decline and dementia. In cultures of responsibilised successful ageing, where the 'quality' of older age has been discursively reconceptualised as the outcome of diligence and choice by conscientious citizens, brain health advice carries both promise of enhanced cognition and moral obligation to avoid the personal, economic and social disaster of dementia.

Method

This paper presents findings about the theme of brain health advice emergent from a study of aged care public discourse examining how dementia is constructed by aged care stakeholders in Australia. This discourse analysis study builds on existing literature on negative media framing of dementia as the 'worst of ageing', devoid of agency or autonomy, where persons with dementia are conceptualised as 'no longer there' and 'passive recipients' of treatment and care (Clarke, 2006; Kirkman, 2006), as well as studies on responsibilising health and illness discourses informed by biomedical successful ageing (Lawless and Augoustinos, 2017; Lawless *et al.*, 2018; Brookes, 2021; Petersen and Schicktanz, 2021). Using strategic sampling guided by the research question, data were derived from publicly accessible online mixed-media documents published over a six-year period (2015–2021) by institutional stakeholders in the Australian aged care sector.[5] The sample was designed to identify and select 'information-rich' documents that contribute to constructions of dementia by stakeholders with interest and influence in Australian aged care, including aged care providers, medical and health-care providers, academic research institutions, government and non-government organisations, medical suppliers and industry associations.

The sample was selected using a strategy of both direct collection (selected website home pages) and keyword search collection (relevant keyword search terms) of aged care stakeholder documents. Direction collection was made from the website home pages of prominent Australian aged care stakeholders (aged care providers, industry organisations and advocacy groups). Keyword search collection was a two-step process starting with an exploratory pilot study of unstructured internet queries using Google search, followed by a second phase of structured internet searches.[6] The keywords were incorporated into individual search strings using the following format: dementia OR Alzheimer's AND [keyword] (*e.g.* 'dementia

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Table 1. Summary of stakeholder document criteria

Criteria	Inclusion	Exclusion
Time	Documents dated between 1 January 2015 and 30 September 2020	Documents dated pre-1 January 2015
	Undated documents currently accessible online	Post-30 September 2020
Region	Australia	International
Access	Online – public access	Online – secure access
Type	Media releases	Media articles; individual blogs/websites
	Reports	
	Organisation webpages	
	Industry 'info/news' marketing by stakeholders	
	Organisation blog posts/articles	
Source	Aged care providers (profit and non-profit)	Media; individuals
	Government departments/organisations (national, state and local levels)	
	Academic/research institutions (*e.g.* university and multi-disciplinary research groups)	
	Medical/health-care bodies (*e.g.* medical and nursing associations)	
	Advocacy/consumer groups (*e.g.* carer/support groups)	
	Industry associations (*e.g.* industry bodies, lobby groups)	
	Biotechnology companies (*e.g.* pharmaceutical, biotech, medical device suppliers)	

OR Alzheimer's' AND 'wander OR wandering'). Returned documents were then excluded if they fell outside the sample criteria detailed in Table 1, or did not contain any relevant or meaningful content about aged care and dementia. Assessing 'meaningfulness' involved asking how the document in question would help in 'developing the overall kind of explanation … or understanding the process' that responds to the research question (Mason, 2018: 72). To keep the volume of data feasible for a manual qualitative study, searches were performed for each search string until the returned documents showed repetition of results and saturation of themes in the documents. 'Theory-saturation point' can be said to have occurred when the data 'stop telling you anything new about the social process under scrutiny' (Mason, 2018: 70). This multi-strategy approach yielded a sample of approximately 170 aged care stakeholder documents from the Australian aged care public discourse. Each document was saved to pdf format and then coded in NVivo 12 Plus.

The study adopted a multi-staged, iterative inductive and deductive approach to coding and analysis informed by qualitative discourse analysis methods (Van Dijk, 2011; Tomkiss, 2012; Keller, 2013), specifically in the field of health and illness communication (Lupton, 1992; Brookes and Hunt, 2021). The first stage of

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preliminary open or inductive analysis looked at both emphasises (choice of language, agency, characterisations, associations and imagery) as well as silences (lack of voice, absence of actors) in the discourse, to develop a comprehensive list of potential codes of framing devices and rhetorical strategies. This data-led approach recognises the objective is not to solve the research problem, but to identify how the problem and solution are constructed in the discourse (Tomkiss, 2012: 408). The second stage used axial coding to condense and refine these codes into abstract interpretive frames and themes compared to existing themes identified in the literature. Codes were also discussed and refined among the research team. This process allowed for codes to be merged and/or expanded as analysis progressed and generated a matrix of recurring patterns and representations that could be grouped into ideological narratives about dementia and cognitive health.

While the study revealed numerous emergent themes about dementia in the sample of Australian aged care public discourse, the focus of this paper is on the theme of brain health advice by aged care stakeholders. Three key concepts of dementia associated with brain health advice are described with illustrative examples from stakeholder documents. The source of each example extracted from stakeholder documents is identified by an abbreviation and detailed in Table 2.

Findings

In the aged care public discourse sample, the theme of brain health advice on how to reduce the risk of cognitive decline and avoid dementia, in the form of lifestyle recommendations on diet, exercise and 'brain fitness' from expert biomedical voices, was prevalent. Brain health advice was directed to the performance of both 'bodywork' and 'brain-boosting' practices.

Three key related concepts about dementia and cognitive health were articulated in the public discourse sample. The first concept reflects framing that characterises dementia as an 'impact', a physical disastrous force to be resisted by individuals and society. The remaining two concepts reveal the reception and translation of biomedical and neurocultural discourses about dementia research into aged care public discourse. The second dementia concept suggests it is capable of prevention or delay, while the third dementia concept frames 'brain-boosting' neuro-enhancement as the best defence against the threat of cognitive decline and dementia. Combined, these concepts led to the primary finding of a moral framework of 'brainwork practices' in aged care public discourse advocating responsibilised older persons self-manage the ageing brain, which has consequences for constructions of dementia as failed or unsuccessful ageing.

'Impact' of dementia

Consistent with prior studies (*see e.g.* Brookes, 2018; Bailey *et al.*, 2021), the public discourse sample revealed the (re)appearance of the concept of dementia as physical threat. Language of force, such as 'impact', 'fight', 'battle' and 'halt', frame dementia as a powerful and destructive agent and legitimise a disciplined 'regime and industry' of resistance informed by biomedical and stakeholder interests (Cardona, 2008: 478). One clear instance is 'impact', a term frequently used to describe the effects of dementia on persons, families and carers, as well as its social and economic

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Table 2. Aged care stakeholder extract sources

Abbreviation	Stakeholder name	Stakeholder type	Name	Website	Date
ADI	Alzheimer Disease International	Dementia policy and advocacy network	World Alzheimer Report 2015: The Global Impact of Dementia. An Analysis of Prevalence, Incidence, Cost and Trends	https://www.alzint.org/resource/world-alzheimer-report-2015/	2015
ACG	Aged Care Guide	Aged care information website	Dementia	https://www.agedcareguide.com.au/information/dementia	2016
AOS	The Age of Senescence, Kirsty Porter	Aged care lobbyist and health practitioner	The Cognitive Footprint Model	https://theageofsenescence.com/cognitive-footprint-model/	2016
AWA	Alzheimer's WA: The Dementia Experts	Dementia advocacy and support group	Understanding Changes in Behaviour: The Impact of Dementia	https://www.alzheimerswa.org.au/wp-content/uploads/2019/04/Alzheimers-WA-Understanding-the-impact-of-dementia.pdf	2019
BHC	Better Health Channel	Government health information website	Healthy Mind and Older People	https://www.betterhealth.vic.gov.au/health/servicesandsupport/keeping-your-mind-healthy-as-you-get-older	2015
CH	Connect Hearing	Medical-aid supplier	Hearing Loss and Dementia	https://www.connecthearing.com.au/blog/hearing-and-hearing-loss/hearing-loss-and-dementia/	2020
DA1	Dementia Australia	Advocacy and support group	Designing a New Future: Dementia Australia's Strategic Direction 2018–2023	https://www.dementia.org.au/sites/default/files/documents/DA-2018-Strategic-Plan.pdf	2018
DA2	Dementia Australia	Advocacy and support group	The Diet to Fight Dementia	https://www.dementia.org.au/resources/videos/diet-fight-dementia	2017
DA3	Dementia Australia	Advocacy and support group	Fight Dementia	https://www.dementia.org.au/campaigns/fight-dementia	nd
ER	Exercise Right	Health and fitness association	6 Ways Exercise Can Boost Your Brain Health	https://exerciseright.com.au/6-ways-exercise-can-boost-your-brain-health/	2020

(*Continued*)

Table 2. (*Continued.*)

Abbreviation	Stakeholder name	Stakeholder type	Name	Website	Date
FXM	Fx Medicine	Complementary medicine website	Herbal Interventions in Cognitive Decline and Dementia with Dr Genevieve Steiner	https://www.fxmedicine.com.au/podcast/herbal-interventions-cognitive-decline-and-dementia-dr-genevieve-steiner	2020
HP	Dr Helena Popovic	Medical practitioner	Boost Your Brain and Defy Dementia	https://adventurepreventsdementia.com/	2019
MU	Murdoch University	Academic Research	Exercise Good for Alzheimer's Delay	https://www.murdoch.edu.au/news/articles/exercise-good-for-alzheimers-delay	2018
NHBH	Neuaudio Hearing and Brain Health	Medical-aid supplier	Hearing and Brain Health Webinar	https://neuaudio.com.au/week-2-hearing-and-brain-health-webinar/	nd
OHC	Oxley Home Care	Home aged care provider	Development of Alzheimer's Disease Influenced by Gut Bacteria	https://www.oxleyhomecare.com.au/why-good-gut-health-can-help-stop-you-developing-dementia/	2018
QFL	Quest for Life Foundation	Health education charity	Dementia	https://questforlife.org.au/treatment/dementia	2019
QIMR	QIMR Berghofer	Medical research group	Scientists Map Healthy Elderly Brain	https://www.qimrberghofer.edu.au/media-releases/scientists-map-healthy-elderly-brain-may2015/	2015
SAU	SeniorAU	Senior news and research information site	Blood Test Accurately Detects Alzheimer's Disease	http://www.seniorau.com.au/9300-blood-test-accurately-detects-alzheimer-s-disease	2020
TCG	The Common Good	Hospital research fundraising charity	What is Dementia?	https://www.thecommongood.org.au/news/what-is-dementia/	2020
UOS	The University of Sydney	Academic research	The Dementia Tsunami: Alzheimer's and Other Dementias to Triple by 2050	https://www.sydney.edu.au/news-opinion/news/2015/09/03/the-dementia-tsunami--alzheimer-s-disease-and-other-dementias-ex.html	2015
YLC	Your Life Choices	Aged care information website	How to Prevent Dementia – According to a Brain Surgeon	https://www.yourlifechoices.com.au/health/your-health/surgeon-tells-how-to-prevent-dementia	2020

consequences. Across the public discourse sample, the word 'impact' (or stemmed words 'impacts', 'impacted') was repeated over 770 times in 64 documents. Several examples of articulations of the 'threat of dementia' are set out as follows:

> Understanding Changes in Behaviour: The Impact of Dementia. (AWA)
> World Alzheimer Report 2015: The Global Impact of Dementia. An Analysis of Prevalence, Incidence, Cost and Trends. (ADI)
> The big issues for people impacted by dementia. (DA1)

The third example is from the current strategic plan of Australia's peak dementia advocacy and support group, which repeats the phrase 'impacted by dementia' eight times to describe dementia as a powerful negative force. This is reinforced by the phrasing 'impact of dementia', which promotes a rhetoric of resistance by individuals in the 'fight' against dementia. Similar terms of 'defence' were observed in the public discourse sample, such as 'stop in tracks', 'tackle', 'wipe-out', 'reverse', 'alter course' and 'fend off', that conceptualise dementia as an advancing dangerous force to be physically opposed, while terms 'ward off' and 'retard' frame dementia as a power to be pushed or held back. When dementia is framed in aged care public discourse as a threatening force, individuals are discursively recruited in the 'fight' against dementia, such as these examples:

> Because the brain is being attacked… (TCG)
> The diet to fight dementia. (DA2)
> The Fight Dementia Campaign. (DA3)

The use of military terms ('war', 'battle', 'attack', 'fight') occur throughout the public discourse sample and frame dementia as a violent threat to be repelled. In the rally to 'fight dementia', words of opposition – 'prevent', 'delay', 'avoid' or 'reduce' appear in more than 1,400 references in 100 documents across the sample – promote the counterforce needed to 'fight back' in the 'battle' against dementia.

Brain health advice is often accompanied by warnings, consistent with dementia as a feared health and social condition portrayed through a 'panic-blame framework' (Peel, 2014: 890). Public dread of dementia (re)appears in public discourse of aged care stakeholder documents to promote diligence in managing the ageing brain against cognitive decline. Articulations of dementia warnings, such as 'top 10 early warning signs', '10 warning signs' or 'early indicators something might not be right', in the sample of stakeholder documents equate dementia with impending threat. Choice of language, such as the phrase 'warning signs' (instead of 'symptoms'), urge watchfulness in older persons to monitor and mitigate their risk of dementia. Other discursive formulations warn vigilance against the threat of any memory loss by emphasising dementia as 'disaster and danger' (Behuniak, 2011; Cuijpers and van Lente, 2015; Brookes, 2018), such as the following extract from an aged care industry group article:

> It may begin with forgetting where you left your car keys and can eventually lead to potentially dangerous situations such as forgetting to switch off the heater or kitchen stove…

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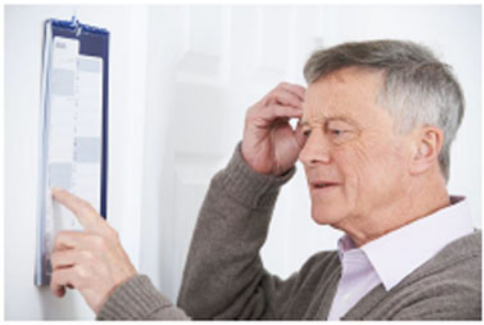
Just forgetful, or do I have dementia? • Early signs of dementia • I'm 'too young' to have dementia.



(ACG)

Memory loss experienced from dementia is different from 'normal' forgetfulness (Source: Shutterstock)

The danger of ignoring *any* dementia warning sign (such as misplaced keys) is reinforced by the stock photograph of a man who appears unable to read a calendar, inferred to be due to dementia. Allocation in aged care public discourse of the dementia 'load' to the individual occurs amid the withdrawal of Australian public health and welfare, particularly in aged care (Asquith, 2009), and directs individuals to self-assess and self-manage the ageing brain.

The concept of dementia as a 'threat' in public discourse is underscored by statistics on dementia prevalence and expenditure, expressed in the following example, titled 'The Dementia Tsunami':

> There are no cures, but the onset of Alzheimer's disease and related dementias can be delayed and perhaps even prevented. It has been estimated that if the age at which people got dementia could be pushed back by five years, this would save $60 billion in cumulative costs by 2050. This goal is quite achievable with a concerted national campaign to change health and lifestyle choices… (UOS)

As Latimer (2018: 835) notes, the reduction of dementia to its economic costs renders persons with dementia as 'old, demented and costly'. This extract states 'pushing back' the onset of dementia would 'save billions in costs', where 'this goal' of economic savings is 'quite achievable' with 'concerted' efforts to change 'health and lifestyle choices'. Here, 'save' carries the dual meaning of 'to avoid the spending or waste of' and 'to rescue from danger' (Macquarie Dictionary Publishers, 2021), and is reinforced by 'tsunami' in the headline. Discursive constructions of dementia as 'costly' promote an imperative to 'save' Australia from the threat of dementia. A literal formulation of this framing is found in the campaign of Australia's peak dementia advocacy group, expressed in the example below:

> Fight Alzheimer's Save Australia. (DA3)

The slogan 'Fight Alzheimer's Save Australia' advocates resistance, a framing reinforced by an accompanying image of a group of people holding protest signs and a

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banner with a raised fist graphic, portraying dementia as threatening the existence of the Australian nation. Rhetorical emphasis on the national threat of dementia in public discourse is repeated in the next example by a medical stakeholder:

> Current research indicates that we can more than halve our rate of developing dementia if we address lifestyle factors. The tragedy is that most people are not aware of this. In 2018 dementia cost Australia $15 billion. By 2025 it is predicted to increase to almost $19 billion in today's dollars and by 2056 to $37 billion. This will blow out our health budget but we can reverse this trajectory by proactively looking after our brains. (HP)

This extract warns the rising costs of dementia threaten to 'blow out' Australia's health budget unless 'we … proactively look[ing] after our brains', and uses words of disaster and force ('tragedy', 'blow out' and 'trajectory') to promote 'more than halv[ing] our rate of developing dementia' through lifestyle changes. Where dementia is conceptualised in public discourse to have the impact of physical disaster, it advocates a regime of resistance in the form of brain health advice to prevent or delay dementia and reduce cognitive decline.

Dementia is capable of prevention or delay

Consistent with findings by other researchers (Lawless and Augoustinos, 2017; Lawless *et al.*, 2018; Petersen and Schicktanz, 2021), the sample revealed a concept of dementia as able to be prevented or delayed by following expert brain health advice. Set against a shift in biomedical dementia research towards early detection and prevention, brain health advice translates medical and scientific debates on dementia risk reduction and prevention and articulates them in the form of lifestyle and consumptive practices. Brain health advice delivered by a medico-scientific expert promotes a rational and normative discursive construction of dementia as preventable (Lawless and Augoustinos, 2017: 75). Formulations of this concept are found throughout the sample of aged care public discourse in phrasing such as 'according to Professor…', 'Dr says…' or 'Dr has some simple advice…'. Expression of biomedical authority over the ageing brain ('skulls') is asserted in the following extract by a digital 'midlife and retirement' publisher, titled 'How to Prevent Dementia – According to a Brain Surgeon':

> Brain surgeon and neuroscientist Dr Rahul Jandial, who works at City of Hope Hospital in Los Angeles, has seen for himself in thousands of operations the difference between a young brain and an ageing one, and how the way a person lives their life can affect their grey matter.
> 'I've operated on over 5000 skulls, and they're all different ages so you see the developing brain to the ageing brain, and everything in between', says Dr Jandial, who also spent years trawling through scientific research in order to come up with what he believes are the best ways to help boost memory, manage stress and reduce Alzheimer's risk. (YLC)

This example highlights the role played by biomedical authority to 'propagate risk knowledge' (Brown and Baker, 2013: 20) in the responsibilisation of dementia

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prevention through brain health advice in public discourse. The brain surgeon's clinical experience is used to construct the ageing brain as the outcome of lifestyle choices, 'the way a person lives their life', and promote the 'best ways to help boost memory … and reduce Alzheimer's risk'. The extract continues:

> Our brains ask so little of us that very manageable changes, like replacing your steak for salmon a few times a week, eating more plants, less fried food, a bit of brisk walking – all these changes add up. It would be great to have this be a new focus because there's no treatment if you get dementia. (YLC)

Here, the brain surgeon's recommendations for 'manageable changes' to diet and exercise that 'add up' to reduce risk are communicated with a warning there is 'no treatment if you get dementia'. This formulation leverages a warning narrative and tends to discount the possibility of living well with dementia.

In a similar example of medico-scientific dementia research re-articulated as responsibilised brain health advice, a hospital charity stakeholder gives the following guidance under the heading 'So what can you do?':

> In the meantime, [the doctor] recommends treating your brain well. Regular exercise, getting enough sleep, having a social life, quitting smoking and eating a Mediterranean diet are a good start. But fear not, while he suggests cutting down on alcohol, Dr Eeles says the occasional glass of wine is good for the brain and possibly the soul. (TCG)

This example positions expert recommendations to 'treat[ing] your brain well' about exercise, sleep, social activities, smoking, diet and alcohol as responsibilising brain health advice. The discursive imperative to *do* something to get a 'good start' against dementia is communicated with the verbs 'getting', 'having', 'quitting', 'eating' and 'cutting down'. Further, the headline 'So what can *you* do?' directly addresses individuals to emphasise personal responsibility for dementia risk reduction. Similar examples of this rhetorical strategy are seen in the phrases 'treating *your* brain well', 'to reduce *your* risk, *you* can' and '*your* brain health'. Use of the pronoun 'you' in public discourse constructs cognitive decline and dementia as the responsibilised outcome of individual lifestyle and consumer choices. This is consistent with construction of individuals as 'responsible choice-makers' as in other 'modifiable' health conditions, such as obesity (Brookes, 2021: 2223).

Brain health advice in aged care public discourse promotes active participation by individuals responsible for self-management of the ageing brain. This discursive 'injunction to activity' (Rose, 1996: 348) is articulated in emphasis on (literal) 'staying active' in the aged care public discourse. Reception and translation of biomedical recommendations into bodywork practices can be seen in aged care public discourse in this example from a health and fitness stakeholder:

> We all know that being active is good for your body, but regular exercise is also crucial for your brain health! … Exercise helps protect against dementia and Alzheimer's disease … Keep forgetting where you put your keys? Maybe it's time to head to the gym! (ER)

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The stakeholder advocates exercise as 'crucial' for 'brain health' to 'protect against dementia and Alzheimer's disease', stressed with exclamation marks. Moreover, the brain health advice makes a direct link between biomedical research on associations between exercise ('time to head to the gym') and reduction in dementia symptoms ('keep forgetting where you put your keys?').

Another example of brain health advice discursively promoting exercise occurs in a news piece by an academic/research institution stakeholder under the heading 'Exercise Good for Alzheimer's Delay':

> Exercise is known to be good for the ageing brain … Dr Belinda Brown, a researcher from Murdoch University … [says] 'Currently there is no effective cure or treatment for Alzheimer's disease that can alter the disease course and so delaying the onset through lifestyle factors is very important.' (MU)

The piece translates medico-scientific research on dementia prevention 'lifestyle factors', such as exercise, as 'very important' on the basis there is 'no effective cure or treatment for Alzheimer's disease', highlighting the potential threat for individuals with an 'ageing brain'. A direct link between health choices, obesity and dementia is articulated in the following extract in a podcast transcript of a medical health professional:

> …dementia is really being driven by the fact that we're living longer and maybe not so healthfully … we've got this big, fat group of older people, fat being they measured two ways, fat being that there's a lot of older people and also the waistlines are increasing. (FXM)

The stakeholder's statement that dementia rates are 'driven' by a 'big, fat group of older people' is used to discursively problematise both the number ('a lot') and lifestyle habits ('waistlines') of older people in general.

Brain health advice in aged care public discourse may also be formulated as specific recommendations based on associations with other health conditions, such as hearing loss, as seen in this example from a medical-aid supplier:

> Scientists have recently discovered potential links between hearing loss and the occurrence of cognitive problems, including dementia … Although these findings may be depressing, there is a silver lining … It is now more important … to take immediate action if you are experiencing hearing loss. It could one day mean all the difference to your mental health. (CH)

In this extract, responsibilising brain health advice leverages fear of dementia to promote services and products. While the research association between hearing loss and dementia is described as 'depressing', a 'silver lining' is advocated as possible if the individual 'take[s] immediate action' for their 'mental health'.

In a similar example, research correlating dementia and gut health is the focus of brain health advice under the heading 'Your Gut Bacteria Could Influence Whether You Develop Alzheimer's Disease' and accompanied by the following image:

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> Did you know that there is a link between your intestinal bacteria and your chance of developing dementia or Alzheimer's Disease? … Researchers will continue to study the role of bacteria in the development of Alzheimer's Disease and test out new strategies – specifically diet and probiotics. (OHC)

In this brain health advice, the aged care provider stakeholder draws on biomedical research linking intestinal bacteria and risk of dementia for 'new strategies' of 'diet and probiotics'. The image of a pill labelled 'Alzheimer's' promotes discursive construction of dementia as potentially preventable with probiotic supplements or medication.

Biomedicalised discourses on successful ageing have been received and articulated into the aged care public discourse to promote responsibilisation of older persons to 'age well'. Applied to the ageing brain, this has been adopted in public discourse to advocate individualised self-care to avoid cognitive decline and dementia. Consistent with the responsibilisation of ageing, the sample of Australian aged care public discourse showed brain health advice messages promotes a biomedical concept of dementia as capable of delay, or even prevention, through articulation of regimes for successful ageing lifestyle and consumer practices.

'Brain boosting' against dementia

Consistent with the 'neuro-turn' observed by other researchers (Williams *et al.*, 2012; Wade, 2018), a neurocultural concept of good cognitive health as the outcome of 'brain-boosting' enhancement was observed in the sample of aged care public discourse. Reflected from neurocultural discourses that pathologise any cognitive decline, brain health advice in public discourse promotes 'neuro-enhancement' in the pursuit of what Wade (2018: 303) calls 'aspirational biocitizenship' and advocates 'perfect' memory as a shield against cognitive decline and dementia. Practices of 'neurological self-fashioning' of the (risky) ageing brain are articulated in public discourse as a rational responsibilised response to protect against the threat of cognitive decline and dementia (Wade, 2018: 315).

Analysis of brain health advice formulations in the sample of aged care public discourse reflects adoption of self-fashioning, neurocultural terms – 'reclaim', 'maximise', 'enhance' and 'boost' – to promote practices for enhancing memory and cognitive function. Indeed, such neurocultural terms appear more than 220 times across the public discourse sample and discursively construct 'valorised neuro-enhancement' as the best prevention against cognitive decline (Williams *et al.*, 2012; Wade, 2018). Wade (2018: 300) described brain games as 'virtuous play', where 'fears [of dementia] are eased by reassurances that we are dedicating our best minds to save our lost brains'. The following further extracts from two earlier examples illustrate this concept:*

> 6 Ways Exercise Can Boost Your Brain Health … exercise boosts memory … enhance brain function in older adults. (ER)

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> Boost your brain and improve your memory … build a better brain at any age … Do you want to stay as sharp at age 90 as you were at age 30? Regardless of your genes, your family history or your diagnosis, you can improve the functioning of your brain. (HP)

Expression of neurocultural phrases, such as 'boost your brain', 'boost memory', 'enhance brain function', 'build a better brain' and 'stay sharp at age 90", discursively promote practices of industrious neuro-enhancement. Neurocultural brain health advice in the public discourse sample interprets research linking mental activity and cognitive function to promote 'brain games'. The following example is from a government health information website, under the heading 'Improve Your Mental Fitness':

> Memory loss can be improved by 30 to 50 per cent simply by doing mental exercises. The brain is like a muscle – if you do not give it regular workouts, it will get weaker.
> You may want to try the following:
>
> - Have a social life and engage in plenty of stimulating conversations.
> - Read newspapers, magazines and books.
> - Play 'thinking' games like Scrabble, cards and Trivial Pursuit. (BHC)

This extract presents 'brain boosting', in the form of a '30 to 50 per cent' improvement in 'memory loss', as possible 'simply by doing mental exercises', while failure to perform 'regular workouts' is said to result in a 'weaker' brain. The brain health advice also advocates individualised participation in 'a social life' and 'play thinking games'. Adopting the 'responsibilising rhetoric' for so-called 'lifestyle diseases' (Brookes, 2021: 2213), the extract discursively assigns personal accountability for brain health with phrases such as 'if *you* do not' and '*you* may want to try'.

Reflecting preoccupation in neurocultural discourse with 'boosted' cognition, the aged care public discourse catastrophises *any* memory loss and conceptualises the ageing brain *itself* as symbolic of cognitive decline. This is demonstrated in the following extract:

> Are you concerned about losing your memory, have a family history or genetic predisposition to dementia? Are you caring for someone whose memory is failing them? Maybe you just think you're getting a little forgetful or that what you're experiencing is just a part of getting older … No matter what state your brain is in, you can improve its functioning. Join us for a fascinating new residential program – Reclaiming Your Brain! (QFL)

Articulated in the phrases 'losing your memory' and 'memory is failing', the extract advocates individualised scrutiny of the ageing brain on the grounds of 'a little forgetful[ness] or … getting older'. The health education charity stakeholder goes on to promote a fee-based programme, 'Reclaiming Your Brain', where, notwithstanding the 'state of your brain', it will be possible to 'improve its functioning'. Reflecting neuroscientific discourses that 'molecularize' brain processes (Katz and

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Peters, 2008: 350), public discourse labels older brains as inherently 'risky', as expressed in the following examples:

> Scientists … have comprehensively mapped the connections in the healthy elderly brain, known as the connectome … 'Now we know how healthy ageing looks … the next step would be to use the same methods to map the connectome of those with mild cognitive impairment' … Mr Perry said the team was keen to tackle neurodegenerative diseases because of their terrible cost to families and society. (QIMR)
>
> There is no treatment for mild cognitive impairment (MCI) except for lifestyle changes … 'But people will be more motivated to do it if they know they have elevated proteins and are at risk.' (SAU)

In these examples, the 'healthy elderly brain' and 'healthy ageing' are discursively contrasted against risky 'elevated proteins' and 'mild cognitive impairment' to promote 'tackl[ing]' the 'terrible cost' of neurodegenerative disease. Framed in this way, the aged care public discourse reflects biomedical debates about 'normal' and 'deficient' memory to legitimise individualised monitoring and inspection of the ageing brain (Katz and Peters, 2008; Williams *et al.*, 2012).

Matrix of brainwork practices

The primary finding of this study emerges from synthesis of three key concepts of dementia identified in public discourse by aged care stakeholders. Together, these concepts advocate a responsibilising framework of 'brainwork practices' on how to self-manage the ageing brain which, in turn, has consequences for constructions of dementia as failed or unsuccessful ageing. Building on Pack *et al.*'s (2019) terminology of 'bodywork practices' for self-management of the ageing body, the phrase 'brainwork practices' is adopted here to represent self-management of the ageing brain.

In their role as 'dutiful biocitizens' (Wade, 2018: 314), older persons are responsibilised to decode a range of broad *and* specific brain health advice into individual brainwork practices to 'boost' the brain and protect against cognitive decline and dementia (Mitchell *et al.*, 2020: 5). Across the sample of aged care public discourse, brain health advice takes the form of expert recommendations on diet, exercise, social activity, leisure, substance use, hearing, intestinal bacteria and mental training. In addition to advice on single factors for brain health, extensive 'shopping lists' of brain health advice are found across the sample. Examples that articulate formulations such as 'Tips for keeping your memory sharp', 'The 7 hidden causes of memory problems' and '6 things you can do to reduce your risk of dementia' discursively construct 'recipes and routines' (Rose, 2000: 1402) for optimal cognitive health. In this way, responsibilising brain health advice in aged care public discourse represents the reception and translation of biomedical successful ageing and neurocultural discourses expressed as a matrix of 'brainwork practices' that promote individualised cognitive health.

The imperative of brainwork practices for ageing brains is illustrated in the following example from an aged care lobbyist, which uses the phrase 'cognitive footprint' to describe 'whole of life' events that determine propensity to cognitive decline:

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The Cognitive Footprint Model
Rossor and Knapp want policy makers to consider wider and more positive cognitive health policies and implementations influencing their nations cognitive longevity, rather than see them prey to the dementia epidemic … Therefore the cause of cognitive impairment, or decline such as we see in dementia, won't just be confined to elder-hood, but what results from our entire life events, that impact our cognitive shape in old age. Henceforth, this wonderful term Cognitive Footprint is coined and defined perfectly. It's about the cognitive health efforts of a whole society.

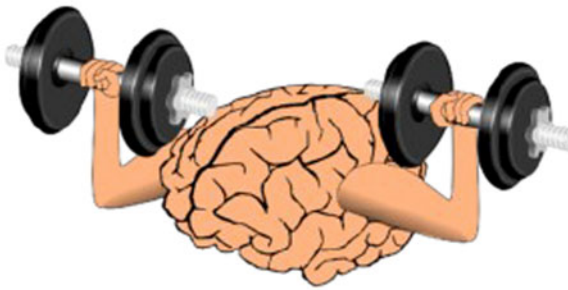

Illustration: Pixabay

(AOS)

Bringing together key themes in the public discourse sample, this extract frames dementia as a dangerous force ('prey', 'epidemic', 'impact') to advocate brainwork practices ('cognitive health efforts') to protect and enhance cognitive capacity ('cognitive footprint', 'shape'). Portrayed in the illustration of a brain lifting weights, the message frames the cognitive health of the 'nation' as the sum of individualised brainwork practices of a 'whole society'.

Brainwork practices are discursively framed as acts of responsibilised citizens for the benefit of both individual and society, where 'proper care of the [cognitive] self' is an 'obligation' to society to minimise the personal and public dangers of dementia in Australia (Cardona, 2008: 480; Pack *et al.*, 2019). This framing of brain health as a personal accountability constructs notions of fault or self-infliction for cognitive decline and dementia. As a final example, the following extract is from a medical aid supplier on the association between hearing loss and dementia:

> Right, so what we see, when we've got a hearing loss that we've done absolutely nothing about is a 30 per cent to 40 per cent increase in the acceleration, in the decline of these abilities. And essentially what that means is that for every 25 per cent of hearing loss, the researchers have consistently found, and this isn't just in one study, that is can lead to 6.8 years of premature ageing. (NHBH)

The example goes on to repeat the phrase 'done absolutely nothing about' eight times in relation to hearing loss leading to 'acceleration', 'decline' and 'premature ageing', framing this failure to act as 'failure to govern themselves' (Rose, 1996: 349). These examples reveal explicit stakeholder discourse about the responsibility of older persons to self-manage the ageing brain.

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Discussion

This paper has identified key concepts about dementia in brain health advice in the sample of aged care public discourse that work together to construct a moral framework of brainwork practices for responsibilised older persons to self-manage the ageing brain. Brainwork practices, as an extension of Pack *et al.*'s (2019: 2094) bodywork practices for the ageing body, are the articulation in aged care public discourse of lifestyle and consumer practices that emphasise self-responsibility for cognitive health and dementia prevention. This primary finding emerges from three related concepts promoted by successful ageing discourses that characterise dementia as a dangerous threat that can be 'fought' with neuro-enhancement strategies to prevent or delay cognitive decline and dementia. Brainwork practices are consistent with governance of responsibilised citizens through the promotion of prescribed 'desirable conduct' (Brown and Baker, 2013: 15). Against a dense background of valorised behaviours for successful ageing, brainwork practices discursively conceptualise cognitive health as an 'enactment of citizenship obligations' (Cardona, 2008: 481), while dementia may be characterised as the outcome of failure to perform expert brain health advice (Mitchell *et al.*, 2020: 6).

Within contemporary neoliberal cultures of ageing, dementia threatens to disrupt the imaginary of successful older age as a period characterised by activity, independence and autonomy. Consistent with prior studies, this analysis of the sample of aged care public discourse shows dementia continues to be framed as a dangerous force threatening 'tragedy' for individuals and a 'meta' problem shadowing economic, social and biomedical dimensions of contemporary society (Higgs and Gilleard, 2017: 178). This framing is consistent with findings on the problematisation of 'public ageing' for older persons with high needs (often persons with dementia) as in conflict with 'the normative expectations of a neoliberal society, where to age successfully is to age independently and privately' (El-Bialy *et al.*, 2022: 131). This positions brain health advice as a neoliberal public health strategy in the context of significant economic, social and political challenges to the provision of aged care. The threat of dementia (re)appears throughout the aged care public discourse sample where the 'impact' of dementia is represented in terms of significant personal burden and public expense, while rhetorical strategies to rationalise individual and collective resistance is found in words such as 'fight', 'halt' and 'battle'. These discursive constructions of dementia advocate a regime of expert-endorsed brain health advice on how to reduce the risk of cognitive decline and dementia.

Shifting emphasis in medico-scientific dementia research away from pharmaceutical or clinical 'cures' towards a focus on dementia risk factors and early detection has been received and translated into growing public health information directed towards individuals on how to 'prevent' (or at least delay) dementia (Petersen and Schicktanz, 2021). This broad provision of expert health advice is consistent with neoliberal processes of responsibilisation that guide individuals' conduct in management of their own good health (Brown and Baker, 2013: 20; Brookes, 2021; Krajewski, in press). Stakeholder messages of brain health advice in the aged care public discourse sample promote the responsibilisation of individuals to monitor and synthesise a wide range of expert advice on how to age well, avoid cognitive decline and prevent dementia.

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Brain health advice is not confined to recommendations on reducing risks of dementia. Popular neurocultural discourses frame the performance of 'brain-boosting' practices in the maintenance of 'ageless' cognitive health and protective against cognitive decline. Brain health advice in the aged care public discourse sample promotes neuro-enhancement strategies that strive to 'build a better brain' and are consistent with aspirational biocitizenship obligations linked to valorised conceptions of successful ageing (Wade, 2018: 313). Brain health advice contributes to the commodification of neuroplasticity, where the brain is a 'project' to be laboured upon through lifestyle and consumer practices to maintain and improve cognitive health. This marketisation of the brain has been recognised by other scholars (Katz and Peters, 2008; Williams *et al.*, 2012; Timonen, 2016), and was described by Cardona (2008: 478) as a 'regime of truth, a culture and an industry' for older persons to manage the ageing body and brain.

Moreover, persons with 'early' dementia or mild cognitive impairment (regarded as a precursor to developing dementia) are discursively identified as 'risky' by neurocultural constructions of normal brain health and the focus of increased biomedical surveillance and intervention (Brown and Baker, 2013: 13). The aged care sample reveals a public discourse that promotes a 'molecularised' brain and mind with emphasis on classifications such as mild cognitive impairment, blood screening and brain scan imagery.

Unsuccessful ageing, failed citizenship and dementia

This paper has identified a discursive matrix of responsibilising 'brainwork practices' in aged care public discourse that advocate lifestyle and consumer obligations against neoliberal cultures that promote successful ageing. However, responsibilisation of health risks may lead to characterisations of fault for those who 'fail to live responsibly' (Petersen, 1997: 198; Brown and Baker, 2013: 16; Liebenberg *et al.*, 2015: 1008). The imperative to age responsibly and successfully is described by Pack *et al.* as follows:

> The moral underpinnings of this self-governance incite judgement of the self and others for perceived failures to manage the ageing body and locate the blame for such failures on individual subjects while obfuscating the effects of the social and economic context in which they are situated. (Pack *et al.*, 2019: 2105)

Therefore, self-responsibility for cognitive health has meaning for constructions of cognitive decline and dementia as the outcome of failed citizenship obligations and for persons with dementia as unsuccessful or failed agers. Responsibilised successful ageing discourses, by promoting individual effort in making a 'good' older age, contribute to 'victim-blaming', stigmatisation and thereby threaten societal obligations to 'unsuccessful agers' (Brown and Baker, 2013: 16; Lawless *et al.*, 2018: 1548; Petersen and Schicktanz, 2021: 2014). When held up to discourses of successful ageing, dementia is constructed as the outcome of failure to participate in brainwork practices, a 'self-inflicted' lifestyle disease that threatens health-care and economic systems. As Pack *et al.* (2019: 2088) argue with respect to the ageing body, 'the state of the individual ageing body becomes an important signifier of moral

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worth and responsible citizenship'. Likewise, the ageing brain becomes a signifier where persons with dementia are designated as failed citizens who experience the 'tragedy' of dementia for acting irresponsibly in proper self-care of the brain.

Construction of dementia as failure to fulfil responsibilised biocitizenship obligations contributes to othering of older persons who have 'failed' to self-govern their ageing bodies and brains as 'unsuccessful agers' (Pack *et al.*, 2019). This othering places dementia outside the imaginary of successful ageing and distances persons with dementia and dementia care within aged care public discourse. This paper's findings that aged care public discourse advocates cognitive decline and dementia can be avoided in a successful older age through performance of brainwork practices is consistent with construction of dementia as a consequence of unfulfilled citizen obligations for self-management of the ageing brain.

Variations and limitations

There was nuance in brain health advice between types of aged care stakeholders within the sample of aged care public discourse. Advocacy and consumer groups were found to emphasise 'brave stories' of people living with dementia, backed up by statistics on the economic and care 'dementia burden'; characterisations that, while consistent with fundraising and marketing objectives, have been criticised as 'tokenistic' (Swaffer, 2014: 714). In contrast, aged care provider stakeholders were found to adopt slogans such as 'live your best you', 'live the life you chose' and 'empowering you to live the life you want', while minimising information on dementia and dementia care, aligning their services with neoliberal pursuit of a successful older age. In both approaches, brain health advice offers an individualised regime against the threat of dementia to successful ageing within aged care discourses.

Several limitations for this paper are acknowledged by the author. Firstly, while this research investigated how institutional stakeholders construct brain health and dementia in the aged care public discourse, investigation of other health and ageing discourses may likely reveal alternative constructions. Choice of alternative aged care stakeholders (direct collection) and search terms (key-word collection) may also yield other concepts about dementia in the aged care public discourse. Variations in the discourse might also be investigated through interviews with stakeholders or aged care recipients and family members, or through internal organisational publications. Further, while this paper identifies a responsibilising public discourse of brainwork practices, it does not investigate its reception, interpretation and performance by older people. Exploration of older people's lived experience and enactment of brainwork practices against public discourses of cognitive biocitizenship presents opportunity for future research. Finally, while this paper has foregrounded responsibilising rhetoric on lifestyle and consumer practices in dementia prevention, it is not the author's claim that the Australian aged care public discourse should be characterised by the single theme of brain health advice. Other themes in the discursive construction of dementia and cognitive health in aged care public discourse may be the subject of future research.

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Conclusion

This paper argues that brain health advice in the sample of Australian aged care discourse portrays dementia as a dangerous threat that must be resisted through the practice of neuro-enhancing lifestyle and consumer choices. Taken together, these concepts of dementia discursively construct a matrix of responsibilised brain-work practices for older persons to perform as an enactment of citizenship obligations. Repetition across the sample of themes of threat of danger, 'brain boosting' and expert biomedical advice demonstrates the role of approved expert knowledge in the governmentality of health and illness amid neoliberal health policies. These findings are consistent with previous research on brain health advice and the responsibilisation of ageing and cognitive health within contemporary neurocultural discourses. Application of these findings has potential relevance for policy makers and health communicators to deliver inclusive and nuanced health messaging about cognitive ageing. Further, identifying constructions of dementia as the outcome of the failure to perform brainwork practices and persons with dementia as failed citizens has meaning for acknowledging how discourses of health and illness shape understandings of 'good citizenship' within contemporary cultures of ageing.

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Notes

1 This paper acknowledges, but does not make any argument in relation to, recent shifts in medico-scientific dementia research from pharmaceutical cures and treatments towards new categories of cognitive deficit, early diagnostics and dementia prevention: the 'new dementia' (Leibing, 2018). This shift has been accompanied by inter-disciplinary debates about the causal relationship between cognitive risks and decline and the role of preventive measures such as diet, exercise and socialisation. In addition, critiques of successful ageing have examined the importance of social, cultural and economic factors as well as oversimplification of medico-scientific evidence about lifestyle factors and privileging of certain groups in dementia prevention advice (Livingston *et al.*, 2017; Anstey and Peters, 2018; Leibing, 2018; Leibing and Schicktanz, 2020).

2 In 2021, an estimated 412,000 Australians held a dementia diagnosis, as do at least 52 per cent of persons living in residential aged care (Australian Institute of Health and Welfare, 2021). The actual number of people living with dementia in residential aged care is thought to be closer to 70 per cent (*see* Royal Commission into Aged Care Quality and Safety *et al.*, 2021: 100).

3 The concept of 'successful ageing' is a central, yet contested, theory in inter-disciplinary ageing research that has 'practical and normative complexities' (Bülow and Söderqvist, 2014: 139). Biomedical theories of successful ageing, predominantly known as the Rowe and Kahn model, were developed out of longitudinal studies of older adults (the 'MacArthur Studies') based on clinical assessments of absence of disease and minimal physical and cognitive functional loss in older age (Rowe and Kahn, 1987). In contrast, psychosocial theories of successful ageing, attributed to Havighurst (Havighurst and Albrecht, 1953), focus on

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perspectives of older person themselves, through life satisfaction, social engagement and personal resources. While there are nuances between each, successful ageing is broadly interchangeable with 'healthy', 'productive', 'active' and 'positive' ageing for a 'good late life' (Lassen and Moreira, 2014: 33). Both the World Health Organization and Australia appear to currently promote a 'healthy ageing' framework (*see* Australian Institute of Health and Welfare, 2018; Department of Health, State of Queensland, 2019; World Health Organization, 2020). Biomedical successful ageing policies promote the role of medical interventions and consumer lifestyle choices (diet, exercise and consumption), while the influence of social and economic environments (public health, education and welfare support) on health outcomes is minimised (Cardona, 2008: 475; Asquith, 2009; Timonen, 2016).

4 In fact, it is both normal and preferable not to 'remember everything', to attempt otherwise would overload the brain with unnecessary details and events; rather life is a delicate balance of 'remembering and forgetting' (Katz and Peters, 2008: 353).

5 This period sought to capture relevant public discourse leading up to and during the Royal Commission into Aged Care Quality and Safety and is consistent with similar discourse studies (*see e.g.* Kirkman, 2006; Lawless *et al*., 2018; Bailey *et al*., 2021).

6 Keyword search terms were identified from the pilot study and existing literature on the framing of dementia that identifies dominant narratives using operative key terms and phrases as follows: 'epidemic OR tsunami', 'fight OR battle OR war', 'living death', 'successful OR positive ageing', 'prevent OR delay OR avoid' and 'wander OR wandering'.

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