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To raise awareness of mild behavioural impairment, we first need to understand its genesis, progression, risk profile and impact. ”

— Dr Moyra Mortby

Investigating mild behavioural impairment to improve dementia detection and diagnosis



What is the focus of the research?

An Australian-first investigation into mild behavioural impairment, an early warning sign of dementia, to develop evidence-based resources that help clinicians provide timely diagnosis and support.



Why is it important?

The progression from cognitive impairment to dementia is continuous. There is no cure, or any treatments to delay its onset. Apathy, aggression, depression and hallucinations are neuropsychiatric symptoms that affect more than 90 per cent of people with dementia.

The severity of these behavioural changes often increases with disease progression, making the person with dementia even more reliant on family and carers when performing everyday activities. These behavioural changes are also

linked to more severe disease progression, increased use of psychotropic medications, premature admission to residential care and increased risk of death. Despite the seriousness of these risks, the importance of behavioural changes as an indicator of dementia risk is often overlooked.

These symptoms are also an early warning sign of dementia, even if the person shows no or early signs of cognitive impairment. Researchers have termed the late-life onset of these symptoms without a dementia diagnosis, mild behavioural impairment (MBI). This transitional state between normal ageing and dementia is detectable and prevalent in community and clinical populations. MBI has been linked to a higher risk of cognitive impairment and dementia; accelerated cognitive and functional decline; poorer carer wellbeing in the context of dementia; and known biological markers for dementia. Unfortunately, only a small percentage of people with these early warning signs of dementia come to clinical attention.

In Australia's first research program dedicated to MBI, Dr Mortby hopes to improve our understanding of MBI as a dementia risk factor and ascertain the level of understanding of MBI amongst clinicians, healthcare providers, researchers and the public.

Her team will draw on 20 years of unique longitudinal data to uncover: a) why some people are more vulnerable to MBI, b) the impact it has on relationships and a person's need for healthcare services, and c) how understanding the organic origins of MBI can inform a more timely and accurate diagnosis, improve quality of life, and reduce pressure on health and aged-care services.

This understanding is urgently needed to help clinicians, service providers, consumers and families better manage the clinical presentation of MBI.

Dr Mortby will also develop important, evidence-based resources that will help clinicians understand, detect and diagnose MBI, as well as support those affected by MBI and their families navigate the road ahead.



How will this happen?

Stage 1: analyse data from the internationally recognised Australian PATH Through Life Study and PATH Neuropsychiatric Symptoms Sub-Study to understand the genesis, progression, risk profile and impact of MBI.

Stage 2: co-design the Australian Survey of Knowledge and Understanding of MBI with clinicians, consumers, family and carers, service providers and CALD community members.

Stage 3: use survey findings to develop infographic and educational material with input from consumers, clinicians and partner organisations. Hold an MBI workshop to pilot the material with clinical and consumer groups, health services and support providers.



What will this mean for the future?

- The ability for clinicians to detect and diagnose MBI.
- Timely treatment to improve quality of life for people and their loved ones.
- More support for people along the continuum from MBI to dementia.
- Reduced strain on health and aged-care services.



Who's undertaking the research?

Dr Moyra Mortby, University of New South Wales

Dr Mortby is a senior research fellow in the School of Psychology, Faculty of Science, University of New South Wales (conjoint appointment with Neuroscience Research Australia). She was awarded her PhD with Laudatio Magna Cum Laude from the University of Zurich, Switzerland in 2012.

Dr Mortby is an internationally recognised expert in the fields of neuropsychiatric symptoms, mild behavioural impairment and dementia. She has extensive experience in the design and implementation of cross-sectional and longitudinal studies, having led several research projects investigating neuropsychiatric symptoms across the cognitive spectrum.

The title of Dr Mortby's research is *Understanding neuropsychiatric symptoms to inform timely diagnosis, patient management and lived experience of dementia*.