

Brightwater Research Centre

ANNUAL REPORT 2022

ABOUT BRIGHTWATER

Brightwater is a not-for-profit organisation that supports people of all ages to live a better quality of life.

The organisation's services are extensive, from short and long-term residential accommodation and rehabilitation services, to assistance in the home and include specialist skills in supporting people with dementia, Huntington's disease and Acquired Brain Injury.

In residential aged care we have 13 homes from Mandurah to Joondalup in the Perth and Peel region in Western Australia. The services include residential care and transitional care, as well as specialist accommodation for people living with dementia, and respite care.

There are nine Disability Services locations in the Perth metropolitan area which provide transitional care, residential and community rehabilitation programs, and specialist homes for people living with Huntington's disease.

Our Brightwater At Home service delivers services to people with low and high support needs within their own home. Home Care Packages are flexible programs of services developed in consultation with the individual (and carer) and tailored to meet consumer-directed care needs. Services can include clinical support, allied health service and other individual services to support and enable people to continue to live in their own home.

In the spirit of reconciliation, Brightwater acknowledges the Traditional Custodians of country throughout Australia and their connections to land, sea and community.

We pay our respect to their elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.



WELCOME

Our Brightwater Research Centre guides Brightwater in our mission of 'Pursuing the dignity of independence'. For Brightwater, no one is beyond care. We value the potential lives that live inside each and every one of us and this drives us in all we do.

The Brightwater Research Centre promotes a research culture within our organisation to inform our practice, making a difference to the lives of our staff, clients and the wider community.

The 2022 report showcases the team's work across 29 different research studies in the areas of ageing well and aged care; Acquired Brain Injury, neurological disease and disability; and clinical information systems.

In 2022 we continued to actively seek opportunities to work with universities, consumer groups and other service providers nationally and internationally. Highlights included the collaboration with other aged care providers in Western Australia on research into the Covid-19 pandemic and research into improving the quality use of medicines in residential aged care.

We also continued to support Brightwater staff and research students to find new and innovative ways to support our clients, their families and our staff. In 2022 we offered scholarships for staff members and research students to conduct projects, research or further learning that will contribute to improving the lives of our clients – including research into Animal Assisted Therapy and the importance of exercise on clinical indicators.

None of this would be possible with our wonderful Brightwater Research Centre Team and all the clients, families and staff who generously contribute their time, experiences, and insights to our research. Thank you for your ongoing support to make the lives of the people we support and others in the community better, every day.

Professor Catherine Stoddart PSMChief Executive Officer

FROM THE DIRECTOR

The foundation of our Research Centre is built on shared ideas, expertise, passion and commitment, and is underpinned by our vision to provide evidence for practice in the real world.

As we progress away from the difficult years of the COVID-19 pandemic, we acknowledge the impact on, and resilience of, the Brightwater clients, families, and staff, and are again grateful for their support of the Research Centre activities.

Our work is based on the strategic priorities identified by Brightwater staff, clients and families, as well as external colleagues, and is underpinned by a governance model that establishes standards and expectations for all research undertaken at Brightwater. It includes a priority to understand client wellbeing within clinical, physical, psychological, social, and environmental perspectives, and approaches to strengthening health service delivery at a systems level.

The research highlighted in this annual report has been undertaken by early career researchers who have been driven by a deep commitment to the wellbeing of our clients and staff, and to innovation and future change. Our researchers span multiple disciplines including biostatistics, epidemiology, dentistry, information systems, media, medicine, nursing, occupational therapy, physiotherapy, psychology, public health, and speech therapy - reflecting the interdisciplinary work needed to support our clients.

In 2022, the Brightwater Research Centre has also created opportunities to engage in West Australian aged care sector-wide studies and collaborated widely at national and international levels. The dedication to collaboration with other industry groups and research organisations, has enabled successful partnerships with universities, public and private health, and community sectors.

Brightwater continues to recognise the important role that industry-based research plays in improving the lives of our clients, and the health of the broader community. On behalf of the Research Centre team, we look forward to continuing this research journey, and together with our clients, families and staff, enabling a stronger system that makes a difference for those that need our care the most.

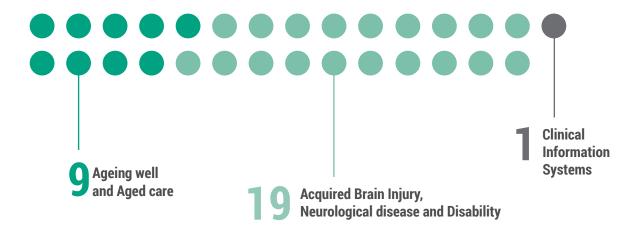
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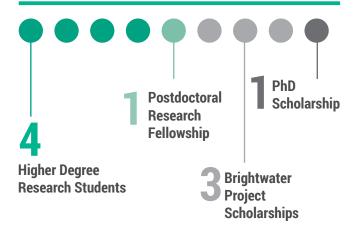
RESEARCH AREAS AND OVERVIEW

Acquired brain injury Advance care planning Ageing well **Clinical information systems** Covid-19 Continence **Dementia** Disability Family wellbeing **Outcome measures** Hearing and vision Mental health Medication **Oral health** Neurorehabilitation **Nurse practitioner** Workforce Younger onset dementia

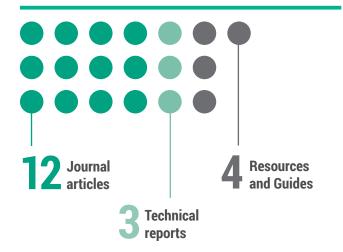
29 RESEARCH STUDIES



9 EDUCATION



19 PUBLICATIONS



17 ACADEMIC CONFERENCE PRESENTATIONS

9 GRANTS

7 grants totalling \$2.45 million as Lead Investigator

grants totalling \$3.1 million as Co-Investigator

RESEARCH STUDIES



ACQUIRED BRAIN INJURY AND NEUROREHABILITATION

Measuring the complexity and outcomes of brain injury rehabilitation and support services at Brightwater: The Acquired Brain Injury Community REhabilitation and Support Services OuTcomes CohoRT (ABI-RESTART) Study:

Study 01

Characteristics of Brightwater clients with an acquired brain injury, 1991 - 2020

Study 02

Effects of comorbidity on post-acute rehabilitation outcomes

Study 03

Rehabilitation outcomes at discharge from Staged Community-Based Brain Injury Rehabilitation

Study 04

Psychosocial functioning as a mediator of change in motor and cognitive function throughout neurorehabilitation

Study 05

Sex and gender differences in service use patterns, clinical outcomes and mortality risk for adults with acquired brain injury

Study 06

Predictors of length of stay, discharge destination, and readmission to post-acute neurorehabilitation

Study 07

Ten-year survival after discharge from post-acute neurorehabilitation

- **Lead Organisation:** Brightwater Care Group
- Chief Investigators: Dr Lakkhina Troeung, Associate Professor Angelita Martini, Dr Georgina Mann
- Researcher affiliations: Brightwater Care Group, University of Western Australia
- **Duration:** 2019 2022
- Funding source: Harken Philanthropic Fund
- Study Status: Study 6 ongoing

Development and evaluation of a novel, sector-driven, online intervention to improve psychosocial adjustment to traumatic brain injury and enable continuity of care from acute to chronic injury

- F Lead Organisation: Brightwater Care Group
- Chief Investigators: Dr Lakkhina Troeung, Associate Professor Angelita Martini, Dr Georgina Mann, Dr Kris Singh, Miffy Durham, Professor Colin MacLeod, Janet Wagland
- Researcher: Thila Raja
- Researcher affiliations: Brightwater Care Group, University of Western Australia, State Head Injury Unit
- **Duration:** 2022 2023
- Funding source: Neurotrauma Research Program
- 🔆 Study Status: Ongoing

ACQUIRED BRAIN INJURY AND NEUROREHABILITATION

Measuring client outcomes and service impact of the brain injury rehabilitation services

Stage 3: Service model evaluation

Stage 4: Measuring client outcomes and service impact

F Lead Organisation: Brightwater Care Group

Chief investigators: Dr Lakkhina Troeung, Associate Professor Angelita Martini, Dr Georgina Mann, Janet Wagland

Researcher affiliations: Brightwater Care Group

Duration: 2022 - 2023

Funding source: Harken Philanthropic Fund

Study Status: Ongoing

ADVANCE CARE PLANNING

The Enhanced Advance care planning and life Review Longitudinal Intervention (EARLI) study: Increasing proactive care planning in Australian community aged care settings

- Lead Organisation: University of New South Wales
- Chief Investigators: Dr Craig Sinclair, Professor Susan Kurrle, Professor Josephine Clayton, Associate Professor Tracy Comans, Associate Professor Kirsten Auret, Dr Elissa Campbell, Professor Elizabeth Halcomb, Michelle Hilgeman
- Researchers: Rebecca Walton, Ava Karusoo-Musumeci
- Researcher affiliations: University of New South Wales, University of Sydney, University of Queensland, University of Western Australia, University of Wollongong, University of Alabama, Brightwater Care Group
- **Duration:** 2022 2026
- Funding source: NHMRC 2020 Targeted Call for Research into End-of-Life Care
- Brightwater role: Associate Investigator
- Study Status: Ongoing

CLINICAL INFORMATION SYSTEMS

Optimising clinical documentation and data systems

Lead Organisation: Brightwater Care Group

Chief Investigators: Dr Lakkhina Troeung, Gap Tshering, Associate Professor Angelita Martini, Martin Roberts

Researcher: Rebecca Walton

Researcher affiliations: Brightwater Care Group

Duration: 2021 - 2024

Funding source: Brightwater Care Group

Study Status: Ongoing

CONTINENCE

Improving independence and quality of life, and reducing the cost of care, for catastrophically injured clients through enhanced assessment of continence needs and delivery of services

Lead Organisation: Brightwater Care Group

Chief Investigators: Associate Professor Angelita Martini and Dr Chebiwot Kipsaina

Researchers: Dr Georgina Mann, Ann-Marie Kearney, Selina Roberts, Dr Li Chen, Lee Shan Siow

Researcher affiliations: Brightwater Care Group

Duration: 2021 - 2023

Funding source: Insurance Commission of Western Australia

Study Status: Ongoing

COVID-19

Reducing COVID-19 related risk in Residential Aged Care Facilities: A WA sector-wide approach for the culturally and linguistically diverse workforce and residents with cognitive impairment

Lead Organisation: Brightwater Care Group

Partner organisations: Brightwater Care Group, Amana Living, Baptistcare, Bethanie, Juniper

Chief Investigators: Associate Professor Angelita Martini, Professor Osvaldo Almeida

Researchers: Dr Lakkhina Troeung, Dr Somayyeh Azimi, Dr Dayna Cenin, Associate Professor Samantha Battams

Researcher affiliations: Brightwater Care Group, University of Western Australia, University of Adelaide

Duration: 2020 - 2022

Funding source: Lotterywest

Study Status: Ongoing

Sentinel Surveillance DETECT Study: Validation of regular saliva-based COVID screening of aged care workers using automated RT-LAMP surveillance

Lead Organisation: Brightwater Care Group

Chief Investigators: Dr Alexandra Seewann, Professor Christopher Reid, Associate Professor Angelita Martini, Professor Paul Watt. Professor Sulev Koks

Researchers: Dr Michael Clark

Researcher affiliations: Brightwater Care Group, Curtin University, Avicena Systems

Duration: 2022

Funding source: Western Australian Department of Health

Study Status: Complete

FAMILY WELLBEING

An intervention to support children and youth impacted by a family member with an acquired brain injury or younger onset dementia

F Lead Organisation: Brightwater Care Group

Chief Investigators: Associate Professor Angelita Martini, Associate Professor Jeneva Ohan

Researchers: Robyn Bett, Hayley Jackson, Ty White

Researcher affiliations: Brightwater Care Group, University of Western Australia

Duration: 2019 - 2022

Funding source: Lotterywest

Study Status: Ongoing

Web-based intervention to support teenagers and young adults impacted by a parent with acquired brain injury or younger onset dementia

F Lead Organisation: Brightwater Care Group

Chief Investigators: Associate Professor Angelita Martini, Associate Professor Jeneva Ohan

Researchers: Robyn Bett, Ty White

Researcher affiliations: Brightwater Care Group, University of Western Australia

Duration: 2022 - 2023

Funding source: Southern Districts Rotary Club

Study Status: Ongoing

HEARING & VISION

SENSEcog aged care: Hearing and vision support to improve quality of life for people living with dementia in residential aged care

Lead Organisation: University of Queensland

Chief Investigators: Professor Piers Dawes, Professor Johanna Westbrook, Professor Ralph Martins, Associate Professor Angelita Martini, Professor Lisa Keay, Professor Iracema Leroi, Professor Colette Browning, Associate Professor Chyrisse Heine, Associate Professor Hamid Sohrabi, Dr Yuanyuan Gu

Researcher affiliations: University of Queensland, Macquarie University, Brightwater Care Group,
University of New South Wales, Trinity College Dublin, Federation University Australia, La Trobe University,
Murdoch University

Duration: 2021 - 2025

Funding source: NHMRC Medical Research Future Fund Dementia, Ageing and Aged Care Mission

Study Status: Ongoing

MEDICATION

Knowledge brokers for evidence translation to improve quality use of medicines in residential aged care (EMBRACE study)

- Lead Organisation: Monash University, Centre for Medicine Use and Safety, School of Primary and Allied Health Care
- Q Chief Investigators: Professor Simon Bell, Dr Adam La Caze, Dr Amanda Cross, Professor Terrence Haines, Professor Sarah Hilmer, Constance Kourbelis, Associate Professor Angelita Martini, Ms Lyntara Quirke
- Researcher affiliations: Monash University, University of Queensland, University of Sydney, Flinders University, **Brightwater Care Group**
- **Duration: 2021 2025**
- Funding source: Medical Research Future Fund 2020 Quality, Safety and Effectiveness of Medicine Use and Medicine Intervention by Pharmacists
- Study Status: Ongoing

MENTAL HEALTH

Mental health services for adults with acquired brain injury undergoing post-acute neurorehabilitation

- **Lead Organisation:** Brightwater Care Group
- Chief Investigators: Dr Georgina Mann, Dr Lakkhina Troeung, Associate Professor Angelita Martini, Professor Romola Bucks
- Researcher affiliations: University of Western Australia, Brightwater Care Group
- **Duration: 2022 2023**
- Funding source: Harken Philanthropic Fund
- -: Study Status: Ongoing

THE NURSE PRACTITIONER

Nurse practitioner-pharmacist telehealth collaboration to simplify complex medication regimens

- Lead Organisation: Brightwater Care Group
- Q Chief Investigators: Associate Professor Angelita Martini, Professor Simon Bell
- Researchers: Sheila Craik, Rebecca Walton, Choon Ean Ooi
- Researcher affiliations: Brightwater Care Group, Monash University (Centre for Medicine Use & Safety)
- **Duration: 2020 2022**
- Funding source: The Western Australian Nurses Memorial Charitable Trust
- Study Status: Ongoing

ORAL HEALTH

Patterns and predictors of dental hospitalisations in patients with acquired brain injury from pre-injury to acute and post-acute injury: a cohort study in Western Australia, 1991-2016

Lead Organisation: Brightwater Care Group

Chief Investigators: Dr Sommayeh Azimi, Dr Lakkhina Troeung, Associate Professor Angelita Martini

Researcher affiliations: Brightwater Care Group, University of Western Australia

Duration: 2022 - 2023

Funding source: Brightwater Care Group

Study Status: Ongoing

OUTCOME MEASURES

Measuring client outcomes and service impact in residential aged care

Lead Organisation: Brightwater Care Group

Researchers: Rebecca Walton, Associate Professor Angelita Martini, Dr Susan Taylor

Researcher affiliations: Brightwater Care Group, Curtin University

Duration: 2020 - 2023
Funding source: Internal

Study Status: Ongoing



DOCTOR OF PHILOSOPHY (PhD)

Student name Lily Cullinan

University

Curtin University, School of Allied Health

Title

Investigation of community participation outcomes for adults with acquired brain injury after discharge from post-acute rehabilitation: A mixed-methods study

Supervisors

Associate Professor Courtenay Harris

Dr Nigel Gribble

Dr Lakkhina Troeung

Student name
Sarah Green

University

University of Western Australia, School of Psychological Science

Title

The relationship between thinking skills & daily functioning in adults with brain injuries

Supervisors

Associate Professor Michael Weinborn

Associate Professor Carmela Pestell

Dr Gilles Gignac

Student name Naomi de Kleine

University

University of Western Australia, School of Psychological Science

Title

Augmenting communication among persons with aphasia: Can gesture lend a hand?

Supervisors

Associate Professor Nicolas Fay

Associate Professor Michael Weinborn

Professor Miranda Rose

Student name
Natalie Pepping

University

The University of Western Australia, School of Psychological Science

Title

Improving emotion regulation: A pilot study of a group intervention

Supervisors

Associate Professor Rodrigo Becerra

Associate Professor Michael Weinborn

Associate Professor Carmela Pestell

Dr David Preece



SCHOLARSHIPS

THE BRIGHTWATER POSTDOCTORAL FELLOWSHIP

The goal of the Brightwater Postdoctoral Research Fellowship is to support and develop early career researchers and build the next generation of high achieving and internationally competitive researchers. Specifically, this Fellowship aims to advance the quality and impact of neurorehabilitation research in Western Australia through the provision of dedicated postdoctoral training within an industry-academic partnership.

RECIPIENT

Dr Georgina Mann University of Western Australia, School of Psychological Science

TITLE

Mental health services for adults with acquired brain injury undergoing post-acute neurorehabilitation

OVERVIEW

Research to date has highlighted the negative impact of mental health comorbidity on both short- and long-term outcomes from brain injury services. Despite this, mental health is not routinely evaluated as part of post-acute care.

The present research will identify areas of weakness and generate a meaningful profile of needs to ensure mental health comorbidities are appropriately managed for individuals with acquired brain injury. This project aims to identify mental health comorbidity early, to improve engagement with services and allow individuals to make the greatest possible gains during post-acute care. These supports will be structured within existing services to ensure they have long-term viability.

THE BRIGHTWATER LYN BEAZLEY SCHOLARSHIP

The Brightwater Lyn Beazley Scholarship aims to investigate the impact of the Oats Street acquired brain injury rehabilitation program. The scholarship was established thanks to a donation from Professor Lyn Beazley after winning the Governor's Award for Giving, combined with a donation from the Southern Districts Rotary Club.

RFCIPIFNT

Lily Cullinan
Curtin University, School of Occupational Therapy

TITLE

Investigation of community participation outcomes for adults with acquired brain injury after discharge from post-acute rehabilitation: A mixed-methods study

OVERVIEW

Staged Community-Based Brain Injury Rehabilitation (SCBIR) has been found to improve functional and psychosocial outcomes for people who have sustained an acquired brain injury (ABI). However, longer-term outcomes after discharge are not well understood. The aim of this research is to investigate community participation outcomes for adults with ABI after discharge from SCBIR.

THE DON HUTCHISON **SCHOLARSHIP**

Don Hutchison served on the Brightwater Board for 25 years, for 13 of those years he served as the Chair. To honour his lasting and outstanding achievement, the annual Don Hutchison Scholarship was established in his name in 2001. The scholarship is for staff members to conduct a project, research or further learning that will contribute to improved quality of life of Brightwater clients.

2022 RECIPIENT

Cassie Cao and Chelsea Rudd

TITI F

The impact of Tai Chi as an exercise has on clinical indicators, mobility, and quality of life in residents living in residential aged care.

THE PETER LANE **SCHOLARSHIP**

The Peter Lane Scholarship was established in 2008 with a generous donation from the Lane family in memory of their son, Peter. Peter had an acquired neurological disability and lived at Brightwater prior to his death in 2004. This scholarship is for a staff member/s to conduct a project, research or further learning to create opportunities that will improve the quality of life of Brightwater clients and increase expertise in the delivery of specialised services to young people with neurological disability.

2022 RECIPIENT

Michael McKenzie

TITLE

Effects of Animal Assisted Therapy on emotional, physical and psychological well-being of people with an acquired brain injury



AS LEAD INVESTIGATOR

Study Title:

Keeping us in mind: Support for children and youth impacted by a family member with an acquired brain injury or younger onset dementia

Funding organisation:

Lotterywest

Research partner:

University of Western Australia, School of Psychological Sciences

Dates:

2019 - 2022

Amount:

\$224,776

Study Title:

Development and evaluation of a novel, sector-driven, online intervention to improve psychosocial adjustment to traumatic brain injury and enable continuity of care from acute to chronic injury

Funding organisation:

Neurotrauma Research Program

Research partner:

State Head Injury Unit, University of Western Australia

Dates:

2022 - 2023

Amount:

\$94,145

Study Title:

Reducing COVID-19 related risk in Residential Aged Care Facilities: A WA sector-wide approach for the culturally and linguistically diverse workforce and residents with cognitive impairment

Funding organisation:

Lotterywest

Partner Organisations:

Brightwater Care Group, Baptistcare, Bethanie, Juniper, Amana Living

Dates:

2020 - 2022

Amount:

\$589,689

Study Title:

Measuring the complexity and outcomes of brain injury rehabilitation and support services at Brightwater Care Group

Funding organisation:

Harken Philanthropic Fund

Dates:

2020 - 2023

Amount:

\$200,000

Study Title:

Improving independence and quality of life, and reducing the cost of care, for Insurance Commission clients with a brain or spinal injury through enhanced assessment of continence needs and delivery of services

Funding organisation:

Insurance Commission of Western Australia

Dates

2021 - 2023

Amount:

\$1,287,551

Study Title:

Nurse practitioner-pharmacist telehealth collaboration to simplify complex medication regimens

Funding organisation:

WA Nurses Memorial Charitable Trust

Dates:

2020 - 2022

Amount:

\$15,000

Study Title:

Web-based intervention to support teenagers and young adults impacted by a parent with acquired brain injury or younger onset dementia

Funding organisation:

Southern Districts Rotary Club

Research partner:

University of Western Australia, School of Psychological Sciences

Dates:

2021 - 2023

Amount:

\$36,600

AS CHIEF OR ASSOCIATE INVESTIGATOR; AND AS PARTNER ORGANISATION:

Study Title:

The Enhanced Advance care planning and life Review Longitudinal Intervention (EARLI) study: Increasing proactive care planning in Australian community aged care settings

Funding organisation:

NHMRC, 2020 Targeted Call for Research into End-of-Life Care Grant

Dates:

2022 - 2026

Lead Organisation:

University of New South Wales

Amount:

\$955,282

Brightwater Role:

Associate Investigator

Study Title:

Knowledge brokers for evidence translation to improve quality use of medicines in residential aged care

Funding organisation:

NHMRC, 2020 MRFF Quality, Safety and Effectiveness of Medicine Use and Medicine Intervention by Pharmacists

Dates:

2021 - 2025

Lead Organisation:

Monash University, Centre for Medicine Use and Safety, School of Primary and Allied Health Care

Amount:

\$1,952,566

Brightwater Role:

Chief Investigator

Study Title:

SENSEcog aged care: Hearing and vision support to improve quality of life for people living with dementia in residential aged care

Funding organisation:

NHMRC, 2020 MRFF Dementia, Ageing and Aged Care Mission

Dates

2021 - 2024

Lead Organisation:

University of Queensland

Amount:

\$1,140,645

Brightwater Role:

Chief Investigator

Study Title:

AUS-TBI: An informatics approach to predict outcomes and monitor intervention efficacy following moderate to severe traumatic brain injury

Funding organisation:

NHMRC, 2020 MRFF Traumatic Brain Injury Stream Grant

Dates:

2021 - 2023

Lead Organisation:

Curtin University

Amount:

\$500,000

Brightwater Role:

Associate Investigator

RESEARCH COLLABORATIONS















Harken Philanthropic Fund













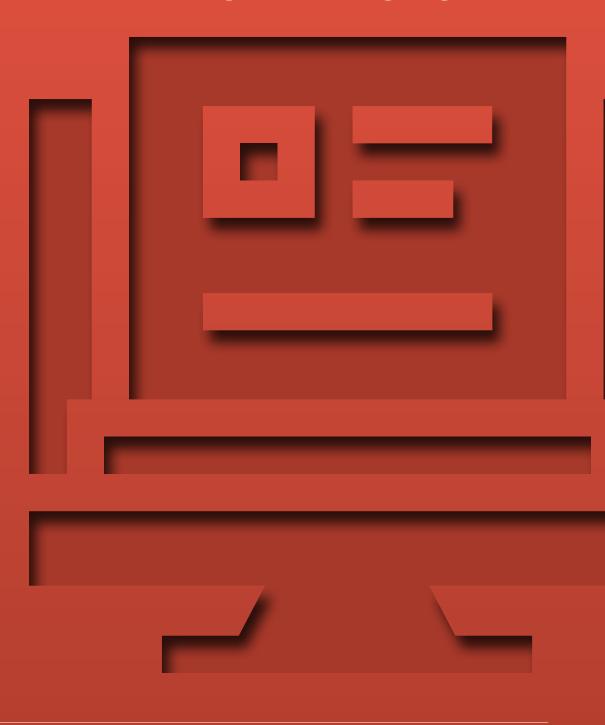




The Brightwater Research
Centre actively seeks
opportunities to work with
universities, consumer groups
and other service providers to
conduct research related to
our core motivation - improving
the wellbeing of Brightwater
residents and clients.

Valuable partnerships enable us to build capacity in our staff, support research students and work together to translate rigorous research into practice.

PUBLICATIONS AND CONFERENCE PRESENTATIONS



PUBLICATIONS

Journal Articles

Almeida, O. P., Patel, H., Velasquez, D., Kelly, R., Lai, R., Ford, A. H., Curran, E., Flicker, L., Chong, W.H., Etherton-Beer, C., LoGiudice, D., Ellis, K.A., Martini, A., Westphal, A., Ekers, D., Gilbody, S., & Lautenschlager, N.T. (2022). Behavioral activation in nursing homes to treat depression (BAN-Dep): results from a clustered, randomized, single-blinded, controlled clinical trial. The American Journal of Geriatric Psychiatry, 30(12), 1313-1323.

https://doi.org/10.1016/j.jagp.2022.05.009

Bell, J. S., Ooi, C. E., Troeung, L., Craik, S., Walton, R. & Martini, A. (2022). Protocol for a pilot and feasibility study of nurse practitioner-pharmacist telehealth collaboration to simplify complex medication regimens. Research in Social and Administrative Pharmacy. 18(9), 3687-3693.

https://doi.org/10.1016/j.sapharm.2022.03.010

Dawes, P., Leroi, I, Chauhan, N., Han, W., Harbishettar, V., Jayakody, D.M.P., Jones, L., Konstantinou, A., Maharani, A., Martini, A., Politis, A. Prabhakar, S., Prew, S., Prouskas, C., Russell, G., Sturrock, A. Sunarti, S., Taylor, J., Vorvolakos, T., & Eorthingto, M. (2022). Hearing and vision health for people with dementia in residential long term care: knowledge, attitudes and practice in England, South Korea, India, Greece, Indonesia and Australia, International Journal of Geriatric Psychiatry. 36(10): 1531-1540.

https://doi.org/10.1002/gps.5563

Jackson, H*., Mann, G*., Martini, A., Troeung, L., Beros, K., & Prinsloo, A. (2022). Change in care hours, cost and functional independence following continence and assistive technology intervention in an acquired brain injury population. Disability and Rehabilitation.

https://doi.org/10.1080/09638288.2022.2055169

Mann, G., Troeung, L., & Martini, A. Time between stroke and admission to post-acute rehabilitation: differences in sociodemographic factors, and clinical, functional and psychosocial outcomes, 1991-2020. Proceedings of the 14th World Stroke Congress, Singapore, 26-29 October 2022. In International Journal of Stroke, 17(3) SUPPL, pp. 311). https://doi.org/10.1177/17474930221128746

Seneviratne, H*., Mann, G*., Troeung, L., & Martini, A. (2022). The association between functional independence and quality of life for individuals with acquired brain injury undergoing community-based rehabilitation and disability support. NeuroRehabilitation.

https://doi.org/10.3233/nre-220062

Taylor, S., Walton, R., & Martini, A. (2022). Health, well-being and quality of life in aged care: Validation of theoretical domains to inform a person-centred outcomes measurement framework. Australasian Journal on Ageing, 00: 1-11. https://doi.org/10.1111/ajag.13133

Troeung, L., Mann, G., Cullinan, L., Wagland, J., & Martini, A. (2022). Rehabilitation outcomes at discharge from staged community-based brain injury rehabilitation (ABI-RESTaRT), Western Australia, 2011-2020. Frontiers in Neurology https://doi.org/10.3389/fneur.2022.925225

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022). Effects of comorbidity on post-acute outcomes in acquired brain injury: ABI-RESTaRT 1991-2020. Annals of Physical and Rehabilitation Medicine, 101669.

https://doi.org/10.1016/j.rehab.2022.101669

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, October). Effectiveness of staged community-based brain injury rehabilitation for stroke: A retrospective cohort study, 2011-2020 [Oral presentation]. 14th World Stroke Congress, Singapore, Singapore. *Proceedings of the 14th World Stroke Congress, Singapore, 26-29 October 2022. In International Journal of Stroke, 17(3) SUPPL, pp. 294*).

https://doi.org/10.1177/17474930221128746

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, October). Effects of comorbidity on post-acute stroke rehabilitation outcomes: A retrospective cohort study, 1991-2020 [Oral presentation]. 14th World Stroke Congress, Singapore, Singapore, Proceedings of the 14th World Stroke Congress, Singapore, 26-29 October 2022. In International Journal of Stroke, 17(3) SUPPL, pp. 292).

https://doi.org/10.1177/17474930221128746

Troeung, L., Tshering, G., Walton, R., Martini, A., & Roberts, M. (2022) Optimising the quality of clinical data in an Australian aged care and disability service to improve care delivery and clinical outcomes (OPTIMISE): Protocol for an Agile Lean Six Sigma study. *JMIR Research Protocols*.

https://doi.org/10.2196/39967

Technical Reports

Seewann, A., Hawksley, M., Martini, M. (2022). *Measures of Nutrition across Brightwater's residential aged care.* Brightwater Care Group, Perth, WA, Australia [Internal Report].

Troeung, L., Tshering, G., Walton, R., & Martini, A. (2022). *Interim Report 1: OPTIMISE Study. MEASURE: Baseline clinical data quality across Brightwater aged care and disability services, July-December 2021* [Industry report]. Brightwater Care Group.

Walton, R., Martini, A., Taylor, S, & Azimi, S. (2022). *Internal Report of Stages 1 and 2: Outcomes Measurement in Aged Care Study* [Industry report]. Brightwater Care Group.

Haynes E., Noonan S., Mitchell A., Stacey I., Martini A., Bessarab D., Wade V., & Katzenellenbogen J.M. (2022). Investigating Factors that Impede and Enable Optimal Implementation of Regional Rheumatic Heart Disease Control in primary health care settings - Strategies and Interventions. The University of Western Australia, Perth. ISBN 978-1-74052-950-1

Resources and Guides

Bett, R. & Ohan, J. (2022). *Guide to helping children and adolescents when a parent has a brain injury for Parents, Caregivers, and Professionals.* Brightwater Care Group.

Bett, R. & Ohan, J. (2022). *Guide to helping children and adolescents when a parent has younger onset dementia for Parents, Caregivers, and Professionals*. Brightwater Care Group.

Ohan, J. (2022). School Advocacy Guide: Responding to the needs of young people when a parent has an acquired brain injury. Brightwater Care Group.

Ohan, J. (2022). School Advocacy Guide: Responding to the needs of young people when a parent has younger onset dementia. Brightwater Care Group.

PRESENTATIONS

Academic Conference Presentations

- Azimi, S., Troeung, L., & Martini, A. (2022, September 26-29). *Predictors of dental hospitalisations in patients with acquired brain injury* [Oral presentation]. 61st Annual Scientific Meeting of the International Association for Dental Research, Melbourne, VIC, Australia.
- Azimi, S., Troeung, L., & Martini, A. (2022, December 14-16). *Prevalence and patterns of dental hospitalisations and procedures in an acquired brain injury cohort (by injury phase)* [Poster Presentation]. 12th World Congress for Neurorehabilitation, Vienna [Virtual], Austria.
- Mann, G., Martini, A., & Troeung, L. (2022, May 5-7). *Gender differences in service utilisation and clinical outcomes of people with acquired brain injury undergoing post-acute neurorehabilitation and disability support, 1991-2020* [Oral Presentation]. 45th ASSBI Brain Impairment Conference, Perth [Virtual], WA, Australia.
- Mann, G., Seneviratne, H., Troeung, L., & Martini, A. (2022, October 12-14). *Predictors of quality of life in post-acute neurorehabilitation for adults with acquired brain injury* [Oral Presentation]. 19th Neuropsychological Rehabilitation Special Interest Group of the World Federation of Neurorehabilitation, Maastricht [Virtual], The Netherlands
- Mann, G., Troeung, L., & Martini, A. (2022, May 5-7). *Time between acquired brain injury and admission to post-acute brain injury services: Differences in sociodemographic factors, and clinical, functional and psychosocial outcomes, 1991-2020* [Oral Presentation]. 45th ASSBI Brain Impairment Conference, Perth [Virtual], WA, Australia.
- Mann, G., Troeung., L., & Martini, A. (2022, October 26-29). *Time between stroke and admission to post-acute rehabilitation: differences in sociodemographic factors, and clinical, functional and psychosocial outcomes, 1991-2020* [Poster]. 14th World Stroke Congress, Singapore [Virtual].
- Mann, G., Troeung, L., Martini, A. (2022, December 14-16). *Differential benefits of post-acute acquired brain injury services after various time since injury: Analysis of demographic, clinical, and rehabilitation outcomes, 1991–2020* [Poster Presentation]. 12th World Congress for Neurorehabilitation, Vienna [Virtual], Austria.
- Mann, G., Troeung, L., Martini, A. (2022, December 14-16). *Gender differences in patterns of service use and rehabilitation outcomes following post-acute care for acquired brain injury: A cohort study* [Poster Presentation]. 12th World Congress for Neurorehabilitation, Vienna [Virtual], Austria.
- Martini, A., Ohan, J., & Bett, R. (2022, Mar 27-9). Supporting children and youth impacted by a family member with an Acquired Brain Injury [Oral presentation]. ASSBI 2022, Adelaide, SA, Australia.
- Martini, A., Ohan, J., & Bett, R. (2022, June 8-10). Supporting children youth and young adults impacted by a family member with an Acquired Brain Injury or Early Onset Dementia [Oral presentation]. 55th Australian Association of Gerontology conference, Adelaide, SA, Australia.
- Troeung, L., Mann, G., Cullinan, L., Wagland, J., & Martini, A. (2022, December 14-16). *Rehabilitation outcomes at discharge from Staged Community-Based Brain Injury Rehabilitation in Western Australia, 2011-2020 (ABI-RESTART)* [Poster Presentation]. 12th World Congress for Neurorehabilitation, Vienna [Virtual], Austria.
- Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, May 5-7). *Measuring the complexity and outcomes of Brightwater clients with acquired brain injury: A whole population cohort study, 1991-2020* [Poster Presentation]. 45th ASSBI Brain Impairment Conference, Perth [Virtual], Australia.

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, October 26-29). *Effectiveness of staged community-based brain injury rehabilitation for stroke: A retrospective cohort study, 2011-2020* [Oral presentation]. 14th World Stroke Congress, Singapore, Singapore.

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, October 26-29). *Effects of comorbidity on post-acute stroke rehabilitation outcomes: A retrospective cohort study, 1991-2020* [Oral presentation]. 14th World Stroke Congress, Singapore, Singapore.

Troeung, L., Mann, G., Wagland, J., & Martini, A. (2022, December 14-16). *Effects of comorbidities on post-acute rehabilitation outcomes in acquired brain injury: (ABI-RESTART), 1991-2020* [Poster Presentation]. 12th World Congress for Neurorehabilitation, Vienna [Virtual], Austria.

Walton, R., Martini, A., Taylor, S. & Azimi, S. (2022, Nov 22-25) *Brightwater Outcomes Measurement Framework – Aged Care (BOMF-AC)* [Poster Presentation]. 55th Australian Association of Gerontology conference, Adelaide, SA, Australia.

Walton, R., Taylor, S., & Martini, A. (2022, June 8-10). *Outcomes in aged care: Barriers and facilitators to outcome measurement* [Oral presentation]. OT Exchange 2022, Melbourne, VIC, Australia.



RESEARCH CENTRE STAFF

Our research initiatives are supported by a team committed to promoting high quality and innovative research that informs best practice.

ASSOCIATE PROFESSOR ANGELITA MARTINI

Director, Brightwater Research Centre

Angelita has worked in public health practice, education and research, and holds a PhD and qualifications in health, education and primary health care. Her research is focused on the health needs of vulnerable Australians, including the elderly, people with disabilities, and families impacted by illness. She has extensive experience in policy and health services research, leading to substantial influence on policy and practice through successful collaboration with community, government, industry and non-government organisations.

Angelita holds adjunct appointments with The University of Western Australia and Flinders University.

DR DAYNA CENIN

Program Lead, Health Economics

Dayna is an early career researcher who is passionate about developing and implementing evidence-based health practices and policies which make a difference. She has a strong interest in working with decisions makers to ensure their programs are effective, equitable and achieve the maximum benefit for their clients within their constrained budgets.

Prior to joining the Brightwater Care Group, Dayna's research focused on optimising and personalising screening interventions to prevent colorectal cancer. Her doctoral thesis from Erasmus University Medical Centre (the Netherlands) evaluated the harms and benefits of colorectal cancer screening programs to improve their effectiveness and cost-effectiveness in both the general population and in specific high risk population groups. At Brightwater, Dayna leads a range of research initiatives, with a focus on health economics.

DR CHEBIWOT KIPSAINA

Program Lead, Public Health Systems

Chebiwot Kipsaina is a Public Health specialist with a medical background. She has over twenty years of experience as a medical practitioner and researcher having worked in Government, private and non-Governmental organisations both in Australia and internationally.

Chebiwot holds a medical degree from Patrice Lumumba, Moscow, Russia, and a PhD in Public Health from Monash University, Australia.

Prior to joining Brightwater, she worked as a Research Fellow in the Australian Institute of Family Studies (AIFS) at Monash University, as well as a Public Health Senior Lecturer at Kabarak University, Kenya. While at Monash University, Chebiwot worked with the World Health Organisation (WHO) where she played a key role in the design, piloting and evaluation of the first Global Mortuary Based Injury and Violence Surveillance manual for WHO and available globally.

Chebiwot's professional interests include working at the nexus of evidence, policy and practice, particularly biased towards injury prevention among vulnerable groups in society. She is passionate about the role that research entities, academic institutions and industry can play to improve service delivery to citizens by translating evidence into high quality practice.

Chebiwot is also a Sessional Lecturer at the Curtin University Medical School.

DR ALEXANDRA SEEWANN

Clinical Research Lead

Alexandra obtained her medical degree at The Medical University of Graz, Austria in 2004. Since qualifying she has worked as Neurology registrar in Austria, the Netherlands and Australia. She developed a special interest for neurodegenerative and neuro-inflammatory disorders, which led to PhD studies at the Free University in Amsterdam, The Netherlands, which focused on imaging and histopathology in Alzheimer's disease, multiple sclerosis and stroke.

Alexandra is passionate about disease prevention and the influence of lifestyle choices, especially nutrition and exercise, on health and disease, with her work at Brightwater centred around nutrition in neurological disease and dementia

Alexandra is also a Senior Lecturer at the Curtin University Medical School.

DR LAKKHINA TROEUNG

Brain Injury Program Lead, and Principal Biostatistician

Lakkhina is a clinical researcher with a background in neurodegenerative disease and neurotrauma. She has over 8 years postdoctoral of training in biostatistics, epidemiology, population health and general practice research at leading universities including UNDA Medicine, UWA Population Health, and UNSW Medicine. She has worked on a wide range of research and evaluation studies including clinical trials, case-control studies, epidemiological and epigenetics studies, big data research and data linkage. At Brightwater, she leads the Brain Injury Research Program as well as oversees all quantitative analytics within the Research Centre.

DR SOMAYYEH AZIMI

Senior Researcher and Oral Health Lead

Dr Somayyeh Azimi (Somy) is a Doctor of Dental Surgery with post-graduate training in oral and maxillofacial diseases. She also holds a PhD in Human Sciences focusing on head and neck cancer from the University of Western Australia.

Somy has over ten years of experience as a dental surgeon and researcher. She is an honorary research fellow at International Research Collaborative - Oral Health and Equity Centre (IRCOHE) at UWA, and a volunteer researcher at Telethon Kids Institute.

Somy's field of research has been in clinical dental health, people with disabilities and telehealth, and has included a variety of research methods including, observational, experimental, and data linkage. Her research focus is on addressing issues in health disparities, and she is passionate about ensuring that research findings translate into high-impact outcomes.

ROBYN BETT

Clinical Psychologist

Robyn graduated from Murdoch University with a Master of Applied Psychology (Clinical) in 2003. Since then Robyn has worked in government and non-government agencies providing psycho-therapeutic treatment for children, young people and families.

At Brightwater, Robyn has the opportunity to use her experience of working with children in distress and her curiosity about what helps families thrive, within a project that aims to develop support for children with an acquired brain injury or younger onset dementia.

DR LI CHEN

Research Officer

Li Chen holds a PhD in media and cultural studies, a Master of communications, and Bachelor of Arts majoring in journalism. Her research has focused on multicultural Australia and cross-cultural communications. Lily has published widely in academic journals as well as the local media.

With experience in teaching, supervision, and research development, Li is also an expert in communications and journalism. She has 15 years' experience working as an award-winning journalist, documentary filmmaker and news editor. Over the years, she has worked with many environmental and community development NGOs from an interdisciplinary perspective, allowing her research to have academic and industry reach and impact.

Li also works as a postgraduate supervisor in Arts and Humanities at Edith Cowan University.

LILY CULLINAN

Research Assistant

Lily holds a Bachelor of Science with First Class
Honours in Occupational Therapy from Curtin University
and is the 202X recipient of the Brightwater Lyn Beazley
PhD Scholarship. As a Curtin University PhD candidate,
Lily will be investigating community participation
outcomes for adults with acquired brain injury after
discharge from post-acute rehabilitation. This will
involve working with both staff members and clients at
the Brightwater Oats Street facility. Lily is passionate
about enabling Brightwater clients living with an
acquired brain injury to live meaningful and purposeful
lives in the community as independently as possible.

Lily completed her undergraduate honours project at Brightwater Oats Street on the usefulness of a modified upper limb program on upper limb functioning for Brightwater clients who had sustained an acquired brain injury. She has also previously worked as an Occupational Therapist at Brightwater Oats Street for 6 months and will be working closely with Brightwater throughout her PhD.

HAYLEY JACKSON

Research Officer

Hayley holds a Bachelor of Arts with First Class Honours in Psychology from the University of Western Australia, and is currently a PhD candidate with The University of Western Australia

She has been involved in a range of research studies in psychology and public health, including focused on improving access to interventions for mental health problems and addressing the needs of children affected by chronic parental illness or disability.

At Brightwater, Hayley has worked on studies aimed at understanding community rehabilitation outcomes following acquired brain injury and addressing the needs of children who have a parent with acquired brain injury or younger onset dementia.

ANNIE KEARNEY

Continence Lead

Annie holds a Bachelor of Nursing Science degree from Galway, Ireland, and completed a Graduate Certificate in Continence Management & Promotion in 2015. Annie has worked as an acute care Nurse in public hospitals in both Ireland and Australia. In 2015 she joined a community transdisciplinary continence service and is now an Advanced Continence Clinician. In this role Annie is involved in assessing and planning for clients with disabilities and bladder and bowel dysfunction in metropolitan and regional Western Australia. Annie is passionate about ensuring clients have access to quality continence services within the community so they have an improved quality of life. In her Brightwater role, Annie is the continence Lead for a study aiming to improve independence, quality of life and the cost of care of catastrophically injured clients with brain and spinal injuries through enhanced assessment and planning of continence needs and delivery of services.

DR GEORGINA MANN

Postdoctoral Research Fellow

Georgina is a quantitative psychological researcher with a background in executive function and emotional disorder. Georgina completed her PhD in Psychological Science with the Centre for Advancement of Research on Emotion from the University of Western Australia in 2020. Georgina has since worked at the Brightwater Research Centre as part of the Brain Injury Research Programme. Georgina has published numerous scholarly articles and presented her research findings at national and international rehabilitation, psychology and brain injury conferences.

In 2022 Georgina was awarded the Brightwater Postdoctoral Research Fellowship, in partnership with the University of Western Australia. Under the supervision of Dr. Angelita Martini and Professor Romola Bucks, Georgina's research aims to develop an early screening protocol to identify mental health difficulties in individuals with acquired brain injury to support symptom management and improve quality of life.

SELINA ROBERTS

Continence Nurse

Selina is a dedicated Registered Intellectual Disability Nurse with 12 years of experience in providing compassionate care to clients in a variety of settings including rehab, spinal and complex care, residential, and community health. Selina also provides specialized continence support to adults and paediatrics across metropolitan and regional Western Australia.

Selina's passion for improving the quality of life for her clients led her to pursue post-graduate studies in continence care, which she completed in 2014. She has been a senior continence clinician and integral member of the PEBBLES multidisciplinary continence team at Therapy Focus in Perth, Western Australia since 2013, playing a significant role in the leadership and development of the PEBBLES continence team since its inception. Selina is dedicated to improving clinical standards and practices within the continence specialty.

Selina passion is working with adults and children with disabilities, and she thrives on collaborating with families to achieve positive changes in bladder and bowel health.

YOUOI SUN

Research Administration Officer

Yougi is the Research Administration Officer within the Brightwater Research Centre. He holds a Master of Public Health from the University of Western Australia, a Postgraduate Diploma in International Financial Management, and a Bachelor of Administrative Management and Law; and is a qualified welfare worker.

During his career, Youqi has held a variety of senior management roles in sales and marketing, online media intellectual property, IT, and as Chief Editor for media companies in China and Australia. He also currently consults to Microsoft China as an insider reviewer for MS Windows. At Brightwater, Yougi worked in administration and as the Oats St Resource Facilitator and established a systematic service framework.

DR SUSAN TAYLOR

Senior Research Officer

Suzi is an occupational therapist who holds a PhD in Health Sciences from Curtin University. Her research is focused on outcome measure development, evaluation and translation within clinical settings. She has experience working as a Research Coordinator in tertiary hospital Occupational Therapy Departments. Suzi has a strong passion for building the research capacity of clinical staff and embedding new evidence-based knowledge in practice.

At Brightwater Research Centre, Suzi led the study to determine the most valuable outcome measures for health status, wellbeing, quality of life and goal attainment for Brightwater's aged care clients.

GAP TSHERING

Information Systems Analyst and Study Lead

Gap Tshering holds a Master of Business Administration International, Postgraduate Diploma in Financial Management and a Bachelor of Business Administration. He has extensive experience working in both government and private sector.

While in Bhutan, Gap worked in the Department of Employment where he was largely involved in administering entrepreneurship development programmes. He also worked within Policy and Planning Division of the Ministry of Labour and Human Resources where his assignments mainly entailed formulating sectoral policies, strategic planning and monitoring and evaluation of programmes and projects within results-framework

During his employment with Brightwater, Gap was awarded the 2019 Don Hutchison Scholarship to implement his idea of engaging disabled clients in entrepreneurial activities through his project titled, "The Weekend Entrepreneur", which later earned him the annual Brightwater Innovation Award 2020. Gap is currently working on a clinical data optimisation study to improve quality of clinical data and documentation across Brightwater Services.

REBECCA WALTON

Clinical trials Coordinator and Occupational Therapist

Rebecca holds a Bachelor of Science in Occupational Therapy and a Bachelor of Communications in Journalism & Public Relations. Rebecca has worked as an occupational therapist in the aged care and the NDIS/community sectors, and as an assessor and interventionist on paediatric studies within a tertiary hospital.

Rebecca has a particular interest in the implementation of research into evidence-based best practice. At Brightwater Research Centre, Rebecca has worked to determine and implement best-practice outcome measures for use in residential aged care to measure health, wellbeing and quality of life; and contributed to studies exploring the use of nurse practitioners and pharmacists to simplify medication in residential aged care, and to ensuring the optimisation of Brightwater's clinical data.

Rebecca is now the Clinical Trials Coordinator on the EARLI study, using a strengths-based intervention to increase rates of advance care planning in the community. She is passionate about achieving the best outcomes and quality of life possible for aged care clients at Brightwater.



Brightwater Central

2A Walter Road West, Inglewood, WA 6052

ABN 23 445 460 050 ACN 612 921 632

- **1** 08 9202 2800
- © 08 9202 2801
- **■** welcome@brightwatergroup.com
- w brightwatergroup.com