

## Examining physiotherapy services utilised by older Australians living in residential aged care facilities. (Version 2.0)

### Project Team Roles & Responsibilities

- Dr Lindsey Brett, Postdoctoral Research Fellow, Department of Health Professions, Faculty of Medicine and Health Sciences, Macquarie University. Responsible for project conception, ethics application, recruitment, data collection, data analysis, writing of manuscript and student supervision.
- Professor Julia Hush, Department Director of Research, Department of Health Professions, Faculty of Medicine and Health Sciences, Macquarie University. Responsible for project conception, data collection, data analysis, writing of manuscript and student supervision.
- Dr Daniel Treacy, Physiotherapy Advisor, Prince of Wales Hospital, SESLHD. Responsible for recruitment, analysis, writing of manuscript and student supervision.
- Ms Natasha Pocovi, Research Assistant, Department of Health Professions, Faculty of Medicine and Health Sciences, Macquarie University. Responsible for project conception, ethics application and Qualtrics design.
- Macquarie University Doctorate of Physiotherapy students undertaking a final year research project. These students have not yet been identified but will be added to the ethics application when identified. Responsible for data analysis and writing of manuscript. Each student will be trained and supervised by Dr Lindsey Brett, Professor Julia Hush and Dr Daniel Treacy.

### Resources

- Nil funding has been obtained for this study. The study will be completed as part of the research team's role at Macquarie University.

### Background

- Literature review

The number of Australians aged 65 years and older has increased substantially and is projected to grow from 3.8 million in 2017 to 8.8 million by 2057 [1]. The increasing older population has resulted in an increased demand on Residential Aged Care Facilities (RACFs) workforce to support frail, older adults when they can no longer live at home with family and/or external agency support [2]. To ensure these care needs are met, a multidisciplinary team approach is commonly adopted, which can include nurses, general practitioners, physiotherapists, OTs, podiatrists, exercise physiologists and pharmacists [3].

The Australian Department of Health (DoH) 2016 Workforce Survey, which is conducted with the Australian Health Practitioner Regulation Agency (AHPRA), found the most common AHPs in Australian RACFs were physiotherapists, with 1,588 clinicians (6.54% of the total profession) predominantly working in Australian RACFs [4]. Physiotherapists working in this sector have the skills and knowledge to assist with mobility and movement related dysfunctions, rehabilitation, pain management, fall and injury risk minimisation,

individualised exercise prescription, incontinence management, and manual handling education [5].

Legislations and guidelines recommend the use of allied health services to help restore and maintain the function of older adults living in RACFs [6, 7]. In Australia, the main government subsidy for the provision of care is determined by the Aged Care Funding Instrument (ACFI), which assesses relative care needs of older adults living in RACFs [8].

The ACFI only funds allied health related services for pain management (massage, electrotherapy and other technical equipment), and these interventions are not supported by strong evidence as effective components of chronic pain management [9]. Literature indicates that effective pain management should use a biopsychosocial approach that is individually tailored, functional, and primarily focused on non-pharmacological modalities such as exercise, education and modification of beliefs and responses to pain [10]. The limited funding and limited utilisation of evidence-based practice is potentially resulting in older Australian adults receiving sub-optimal care.

- Rationale/Justification (i.e. how the research will fill any gaps, contribute to the field of research or contribute to existing or improved practice)

Research has shown physiotherapy can help older adults living in RACFs improve or maintain their mobility, function, pain, and the prevention of falls. However, there is no existing study that examines the type, scope, barriers and facilitators to providing physiotherapy services in Australian RACFs.

This project will provide the first accurate and reliable data about physiotherapy services in Australian RACFs. This data will inform the development of evidence-based physiotherapy in RACFs, for example determining optimum treatment parameters and cost-effective services to address key indicators such as functional ability, pain and unmet needs. This project has clear potential to impact on policy and practice to ensure effective and equitable physiotherapy is available to all older adults living in Australian RACFs. Identified barriers and facilitators to physiotherapy in RACFs can be investigated to improve access, and findings can highlight where funding is required based on evidence and physiotherapists' perspective. This project is particularly timely, considering the current Royal Commission into aged care services and the ACFI review.

The research aims of this project are to determine:

- i) The type and scope of physiotherapy services in Australian RACFs
- ii) If current physiotherapy practice aligns with evidence-based recommendations
- iii) How physiotherapy services are funded in Australian RACFs
- iv) The impact of clinician and RACF characteristics on the use of physiotherapy services in RACFs
- v) The perceived barriers and facilitators to the receipt of physiotherapy services in RACFs from the physiotherapist's perspective

It is hypothesised that majority of current physiotherapy services do not utilise evidence-based practice, due to barriers such as funding and staff availability not being equitable across RACFs.

### Project Design

- Research project setting (physical sites, online forums and alternatives)

Although clinicians will be working in various RACF sites across Australia, all invitations to participate in the survey will be via email and data collection will take place utilising an online survey tool (Qualtrics) of which Macquarie University holds a licence. All data storage and analysis will be based at Macquarie University on associated storage drives.

- Participants
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  - Physiotherapists who predominantly work in RACFs will be invited to participate in the survey.

Inclusion criteria:

- Qualified and registered physiotherapist
- Currently employed within the RACF sector. The RACFs will be a mix of private organisations, government-run organisations and not-for-profit organisation.
- Currently working in Australia

Exclusion criteria:

- Have limited registration with AHPRA
- Are a student physiotherapist
- Do not predominately work in an Australian RACF

- Sample size justification.

The Australian DoH 2016 Workforce Survey found there were 1,588 physiotherapists working in RACFs [4]. A sample size that represents 10% of the population under consideration (159 physiotherapists) is considered sufficient in a survey design study [11]. However, there is the potential that a larger sample size will be achieved in the data collection period.

- Recruitment strategies

An invitation to complete the study survey will be sent via email, social media platforms and information posters through established networks of the research team with aged care providers and relevant associations. The survey will be accessed via a link sent with the study invitations and completed using the Qualtrics platform.

- Approach/es to provision of information to participants and/or consent (as required in addition to that outlined in the HREA)

For those who are emailed, the email will briefly outline the purpose of the project and provide the individual with a link to the Qualtrics survey. In the instance where interest in the study occurs through advertisement or social media - the first page of the survey will be a Participant Information and Consent Form with a tick box to represent agreement to participate in the study before proceeding. The survey will be open for 3 months, providing potential participants with enough time to decide if they would like to participate and allowing time to contact the research team with any questions or concerns.

Participants are not obliged to participate and are free to withdraw from the study at any time without consequence. Unfortunately, due to the nature of data being collected (non-identifiable), it is not possible for the research team to determine the respondent's survey once it has been submitted to Qualtrics. Hence submitted surveys cannot be withdrawn due to the inability to confirm the respondent's survey. However, participation in the survey is completely voluntary and participants can go 'back' within the survey and change their responses or abort the survey prior to submission as desired.

- Methods

Rigorous methods (4-stage process described below) will be adopted in this cross-sectional survey design study to ensure it is accurate and valid for completion by physiotherapists that work in Australian RACFs. The survey questions will focus on the type, scope and potential barriers and facilitators of physiotherapy services in RACFs.

1. Examination of previous research and best-practice evidence: Previous studies that have considered physiotherapy services will be reviewed, as will relevant best practice guidelines. The type of questions utilised in similar studies will be considered, along with the clinical experience of the research team to formulate a preliminary list of potential survey questions. This process has already commenced, and a preliminary set of questions has been submitted with this application.
2. Expert consensus panel: A sample of physiotherapists and facility managers that work in Australian RACFs will be invited to be members of the expert consensus panel. They will provide advice, expertise and intellectual contribution to the development of the survey. Invitations will be sent through established networks of the research team with aged care providers and relevant associations (e.g. Australian Physiotherapy Association, Australian Association of Gerontology). Correspondence with the expert panel during the development of the survey will be via emails, and telephone as required.

Each consensus panel member will be provided with the study aim and the preliminary list of questions developed in the initial stage. They will be asked to rank each question by how relevant it is to achieve the study aim. Panel members will have the opportunity to provide feedback on the clarity of the questions and make suggestions for new questions. The preliminary list of survey questions will then be refined based on the feedback of the expert consensus panel and the new, potentially shortened lists will be

presented to the panel again for review. This process will continue until the panel members agree on the inclusion of all remaining survey questions.

3. Pilot test of survey: The final list of questions will be compiled into an online survey using the Qualtrics platform. The survey will be pilot tested with a group of hospital-based aged care physiotherapists to check the validity and reliability of the survey questions.
4. Implementation of the survey: A cross-sectional, self-reported survey will be conducted online with physiotherapists that predominately work in Australian RACFs. An invitation to complete the study survey will be sent via email, social media platforms and information posters through established networks of the research team with aged care providers and relevant associations. The survey will be accessed via a link sent with the study invitations and completed using the Qualtrics platform. The study will be open for 3 months with regular reminders to complete the survey sent at weeks four and eight to allow enough time to maximise the chance of achieving a large and varied sample.

In total, the survey is estimated to take 10-15 minutes of the participants time. There is no other requirement for participants in this project.

- Data to be Collected  
Please refer to questionnaires attached.
- Data Management

The Qualtrics server (of which Macquarie University has a license) will host the survey and all its responses. Once the survey is completed, data will be downloaded in a csv file. Electronic copies and iterations of the spreadsheet will be stored as password protected files on the Macquarie University shared drive in a folder that only the research team have access to. If any information is printed, it will be stored in a locked filing cabinet in the chief investigators (LB) Macquarie University Office. The survey will not collect any individually identifiable data (e.g. name, DOB, place of work, etc).

The data will be held on the secure server for up to 5 years following any publications which arise from this research.

- Data Analysis:

Descriptive analysis will be used to quantify the type, frequency, duration, funding and potential barriers and facilitators of the physiotherapy services used by older adults living in Australian RACFs. Correlation analyses will be used to determine associations between the characteristics of the selected AHP services and the characteristics of AHPs and RACFs involved in the study. Data analysis will be conducted using SPSS and/or Strata. Thematic analysis of open-ended responses will also be performed.

- Data Linkage: What linkages are planned or anticipated?

No data linkage is planned or anticipated for this project.

- Outcome measures

Participant demographics (age, gender, location, years of experience, time worked in RACFs, proportion of workload in RACFs, type of employment, etc)

RACF characteristics (location, number of beds, type – i.e. private, not for profit)

Scope of physiotherapy services provided in RACFs (type, duration, frequency, funding)

Perceived barriers to the receipt of physiotherapy services in RACFs

Perceived facilitators to the receipt of physiotherapy services in RACFs

### Results, Outcomes and Future Plans

Information on the type of physiotherapy services available in RACFs, the benefits for older adults, and funding options will be disseminated to RACF clients, their families and staff to help educate and engage them in physiotherapy. Consumer engagement activities at RACFs, aged care websites, and aged care provider publications (e.g. client newsletter) will help to raise the physiotherapy profile in this setting and empower older adults to play a more active role in their healthcare decisions.

The Royal Commission into aged care and ACFI review have increased public interest in Australian aged care services. By distributing project findings on the equitability and funding of physiotherapy in RACFs to the wider community through various media platforms, relevant associations and events, we can help to continue driving public interest to push for change in the Australian aged care sector. With community support, research has a greater opportunity to influence policy and be implemented in practice.

The publication of the project findings in academic journals, conferences and peak body communications will further educate the wider physiotherapy community and demonstrate how their knowledge and skillset can be utilised beyond ACFI-funded pain management. This could potentially encourage more physiotherapists to work in this growing field.

### Reference List

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