

Project Title	Active Recovery in Rehabilitation Environments
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Lead discipline (please select one)

- Nursing
 Allied Health
 Medicine
 Pre-clinical

- Health Economics
 Biostatistics
 Value-based Healthcare
 Epidemiology

Outline of the project

Current best clinical practice for people in inpatient rehabilitation aims to increase physical, cognitive, and social stimulation for patients to promote recovery. The rehabilitation environment, that is, the physical building including the design and facilities/equipment available, and the models of care, potentially impact on people in rehabilitation's engagement in activities that may potentially contribute to their recovery (Janssen et al 2014a,b).

This study aims to comprehensively describe the behaviour and activity of inpatients in CHS physical rehabilitation units, so as to determine how much of the patient's day is spent in activities that have the potential to contribute to their recovery, and how this may differ (if at all) between the rehabilitation units. The specific research question is: "What is the level of physical, cognitive and social activity in adults managed in ACT public health inpatient rehabilitation units?" Does this differ between the units?

This study is an observational study design with data collected at two time points in inpatient rehabilitation facilities with differing designs, using behavioural mapping and activity monitoring to measure the physical, cognitive and social activity of patients admitted to the rehabilitation units.

This research provides a unique opportunity to increase understanding of the potential impact, if any, of building design and models of care on patient activity within rehabilitation units and contribute towards future health service design.

Proposed research methods

This project is ongoing. Following project design and ethical approval, all quantitative data has been collected. The next step of the project is data analysis. For the behavioural mapping data, descriptive statistical analyses of the proportion (%) of time compared to total observation time (mean/SD) will be analysed for all categories – eg location, people present, position, and the proportion of time the participant engagement in any, one or multiple of the categorised activities to examine behaviour of inpatients in rehabilitation settings. Comparisons will be made between weekday and weekends, and time of day. Locations of patients throughout the day will also be mapped to describe flow through the buildings, with any trends reported. Accelerometry data will be analysed descriptively to determine mean (SD) duration of daily steps, distance walked and cadence. Participant activity bouts will also be aggregated to describe any potential trends of low/high physical activity time across the day. Pearson's correlations are planned to explore levels of activity with measures of independence (FIM), emotional status (DASS21), and self-reported activity domains (EA-HQ). Results will be compared between the different rehabilitation environmental designs, and other published research to contribute towards writing a research paper on the impact, if any, of differing healthcare facility designs for rehabilitation units.

Preferred study discipline being undertaken by the student

Any – relevant to students from all professions as the research relates to rehabilitation practice in the context of interprofessional care.

Potential benefits to the student and to the department

Participation in this project will assist the student to develop research skills including review and synthesis of evidence, quantitative data analysis, and report writing, and professional skills of interprofessional collaboration and communication in a healthcare setting.

Outcomes from this project have a real world clinical application, with the findings potentially influencing healthcare facility design nationally and internationally.

Department within ACT Health Directorate / Canberra Health Services where the student will be based

University of Canberra Hospital
Allied Health
Rehabilitation, Aged and Community Services
Canberra Health Services

Please submit form to preclinical.research@act.gov.au