Title: Workspace Environmental Design evaluation to support the Aged Care Workforce: Are we using the right evaluation approaches?

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Abstract

Objective: Australia's aged care workforce is facing pressures due to increased demands from an ageing population. This paper reflects upon whether existing workspace environmental design evaluations are supporting the aged care workforce.

Methods: This brief report was informed by a 2018 Optimising Aged Care Workspace Environment Symposium with three streams: 1) Developing, 2) Implementing; and 3) Evaluating Aged Care Workspace Environments.

Results: Symposium key messages included: evidence (lived experiences and feedback) from both older people and the aged care workforce needs to inform developing and implementing aged care environments design. The Evaluating Aged Care Workspace Environments stream key messages included: evaluation approaches are required that are responsive and appropriate to the complex dynamic aged care workspace contexts.

Conclusion: To better inform the design of future aged care settings and support the aged care workforce, principles-focused evaluations of existing aged care settings with input from the aged care workforce are required.

Impact Statement

Evidence-based policy and practice is essential to support the aged care workforce. This paper reflects upon and advocates for principles-focussed evaluation approaches to support evidence-informed planning, implementation and evaluation of workspace environmental design.

Introduction

Australia's aged care workforce is predicted to grow from 360,000 to almost one million by 2050 [1]. Supporting the aged care workforce is vital for the quality of aged care for older Australians. Aged care workforce challenges exist and include, recruiting, retaining and up-skilling. The aged care workforce is extensive and include, Personal Care Workers, Home Support Workers, Registered Nurses, Enrolled Nurses, Clinical Advisors, Allied Health Professionals and Assistants, Hospitality Staff, Domestic Staff, Managers and Directors [2].

The Australian aged care and retirement living sectors are confronted by a demographic shift, resulting in an increase in demand [3]. A small percentage of the ageing population actually seeks out retirement living options (5%) and an equally small percentage require care (6%). However, the accelerated ageing population is already creating demand for solutions to cater to this ageing population, who are more affluent, well informed and healthier, than at any time in Australian social history.

The ageing population has diverse expectations and needs. A desire for innovative, even disruptive, solutions exists to ensure the ageing population finds living arrangements responsive to their changing needs. Ageing in place within communities is receiving greater policy attention and increased funding, enabling older people to be engaged with the society they helped to build, and to remain active and well[4]. With new residents to aged care facilities have higher needs and shorter life spans. The aged care workforce caring for this ageing population needs to reflect these dynamic shifts and the new focus on consumer driven care.

We suggest it is time to look to other sectors which continue to deliver a strong track record of customer service, such as the hotel, healthcare or retail industries. Considerable investment has occurred in understanding consumer needs and expectations within other consumer centric industries. Key principles with regards to designing and planning the aesthetics, amenities, operations, staff wellness, care models, etc can be applied in the context of aged care facilities [5].

Aged care workforce recruitment, retention, and experiences have been supported via: wages, training, regulations, work design, and new models of care [1]. Research into the nature of shared aged care workspaces reveals: 1) aged care settings as both a home/residence for residents and a workplace for staff; 2) a congruence exists between the needs of both aged care staff and residents – hence a workplace environment that is suitable for residents may also be suitable for staff [6]. Overall limited evidence exists about how the physical environment of aged care settings supports (or hinders) staff in the delivery of their day-to-day work tasks (and hence productivity and wellbeing).

While principles for designing aged care exist for residents [7] these do not specifically support the aged care workforce. Even when staff participate in surveys, resident experience is the focus [7]. Outside of aged care, the effects of environment workspace design on worker satisfaction, health, productivity and performance is established [7]. The physical workplace environment can contribute to stressors, resulting in burnout, poorer performance, satisfaction and productivity [9]. The built environment can insulate against stressors [9] and the value of outdoor environments in aged care settings for the wellbeing of both residents and the workforce is recognised [10].

The 2017 Commonwealth Government Aged Care Workforce Taskforce recommendations [12] <https://agedcare.health.gov.au/reform/aged-care-workforce-strategy-taskforce>) provided a platform to support the aged care workforce. However, the recommendations did not focus on the influence nor contribution of the physical workspace environment on aged care staff. Hence, reflection is required upon:

- 1) The extent to which design in aged care is being informed by interdisciplinary endeavours

2) Whether residential aged care design is ignoring the built environmental needs of the aged care workforce

3) Whether evaluation approaches exist that can strengthen the aged care workspace environment design evidence base.

Methods

In May 2018 The University of Melbourne hosted a Symposium on Optimising Aged Care Workspace Environments with three streams: 1) Developing, 2) Implementing and 3) Evaluating Aged Care Workspace Environments. International, national, and local presenters and panel discussants were involved from academia, aged care industry and the design sector.

Stream 3: Evaluating Aged Care Workspace Environment Design involved four presentations: 1) Using feedback from aged care users to inform workspaces; 2) Evidence-based design evaluation approaches; 3) Using practice-based evaluation approaches; and 4) Experiences from developing environmental audit tools.

This paper reflects upon key messages from the Symposium overall and specifically from Stream 3: Evaluating Aged Care Workspace Environment Design and the presentation by the paper first author (LN) on evidence-based design evaluation approaches, that drew upon a literature review on Post-Occupancy Evaluation [15].

Over 60 participants from aged care, design and health workforce academics, industry and government attended the Symposium and the Evidence-based design evaluation presentation.

Results

The field of environmental design evaluation has been defined as “...an appraisal of the degree to which a designed setting satisfies and supports explicit and implicit human needs

and values” [13; p.2]. Friedmann et al [13] also argued that “If we are to improve the practice of design....our appraisals must be careful and systematic” [13; p.2] .

Instruments to measure the effects of workplace environments, in general workplaces and in aged care settings, have focused upon: leadership, communication, conflict management, and staff cohesion [14] with less of a focus on the physical or designed environment.

Workplace environmental evaluation approaches, tools and guides exist. These include Preiser’s seminal work on Post-Occupancy Evaluation (POE) [15]. Zimring and Resizenstein define POE as the ‘*examination of the effectiveness for human users of occupied designed environments*’ [16; p249] whereas Preiser [16; p3] considers POE to be ‘*the process of evaluating buildings in a systematic and rigorous manner after they have been built and occupied for some time*’ .

Reviews of environmental evaluation tools reveal that staff engagement and empowerment are limiting their utilization. Recommended evaluation approaches include engaging and empowering staff via easy to use tools requiring little staff training. Clear indications of what workplace designs are (or not) working are needed ideally through the use of a sharing system that can lead to workplace design recommendations [17,18].

Affordance-based evaluations are *also* advocated to support the needs of users, as affordances are the “*the functional potential of environmental features that carry meanings and values in how they support human usage*” [19; p147]. Building evaluations focussing on affordances include how physical settings support (or hinder) functional uses and communicate cultural clues.

Assessment tools exist to guide refurbishment of aged care facilities. Examples include: EHE- Enhance Healing Environment Assessment Tool; EAT- Residential Aged Care Built Environment Audit Tool; and EVOLVE - Evaluation of Older People’s Living Environments. However, such tools do not specifically focus on the influence nor contribution of the physical workspace environment on aged care staff (with the exception of EAT) and limited data exists on their reliability, validity and quality [20].

Key messages from Symposium presentations included:

- Developing and implementing aged care environments design need to be informed by evidence (lived experiences and feedback) from both older people and the aged care workforce.

Traditional program evaluation approaches exist for formative, process and outcome evaluation [20]. However, with increasingly complex dynamic contexts, requiring innovative interventions and principles, such evaluation approaches are not appropriate. Key messages from the Symposium's Stream 3: Evaluating Aged Care Workspace Environments presentations included:

- Evaluation approaches are required that are responsive and appropriate to the complex dynamic aged care workspace contexts.

Principles-focused evaluation (PFE) approaches [21] are advocated as principles are primary ways of navigating complex dynamic systems and engaging in strategic initiatives. Principles and not the project or program become the evaluand - the object of the evaluation. Principles can provide direction and value what matters. They can be interpreted and applied contextually; assist navigating complex dynamic systems; and provide a point for formative, process and outcomes evaluation.

PFE's are used to evaluate principles-driven change initiatives in complex settings such as international development assistance; sport and recreation; and youth homelessness. For example a PFE led to the development of evidence-based principles to help youth overcome homelessness [21].

Recent research on workplace design for the Australian residential aged care workforce [5] identified four key workspace design features that influenced how residential aged care staff feel, function and perform, namely: 1) A home-like environment, 2) Access to outdoor spaces; 3) Indoor quality environment; and 4) Access to safe, open and comfortable workplaces. These workspace design features could inform the development of evidence-based environmental design principles to support the residential aged care workforce.

While principles are informing Australian aged care home-like design environments (<https://www2.health.vic.gov.au/ageing-and-aged-care/dementia-friendly-environments/strategies-checklists-tools/home-like-environment>) and aged care workforce competencies, ratios and training (file:///C:/Users/lucio/Downloads/agedcare_workforce-PDF.pdf), a PFE approach has not been used to inform workspace environment design to support the aged care workforce. At the Optimising Aged Care Workspace Environments Symposium it was agreed that a PFE approach would direct attention to the following key evaluation questions:

- What meaningful and evaluable Environmental Design Principles matter to the Aged care workforce? (formative evaluation questions)
- How can Environmental Design Principles be supported in practice? (process evaluation questions)
- What benefits can result from Environmental Design Principles for the Aged Care Workforce? (outcomes evaluation questions)

Such an approach could discover what environmental design principles are important to the aged care workforce, that could be applied in practice. The process itself would send a message to aged care workers that their opinions are valued, a much needed message in an undervalued workforce.

Conclusion.

To better inform the design of future aged care settings and support the aged care workforce, principles-focused evaluations of existing aged care settings with input from the aged care workforce are required. In addition, lessons can be learnt from design for other workforce settings.

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