



## Arts & Health

An International Journal for Research, Policy and Practice

ISSN: 1753-3015 (Print) 1753-3023 (Online) Journal homepage: <https://www.tandfonline.com/loi/rahe20>

# Against environmental anaesthesia: investigating resident engagement with a magnetic participative art installation on a secure care unit

Megan E. Graham & Andréa Fabricius

To cite this article: Megan E. Graham & Andréa Fabricius (2019): Against environmental anaesthesia: investigating resident engagement with a magnetic participative art installation on a secure care unit, Arts & Health, DOI: [10.1080/17533015.2019.1700537](https://doi.org/10.1080/17533015.2019.1700537)

To link to this article: <https://doi.org/10.1080/17533015.2019.1700537>



Published online: 04 Dec 2019.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)



# Against environmental anaesthesia: investigating resident engagement with a magnetic participative art installation on a secure care unit

Megan E. Graham<sup>a</sup> and Andréa Fabricius<sup>b</sup>

<sup>a</sup>Sociology and Anthropology, Carleton University, Ottawa, Ontario, Canada; <sup>b</sup>Perley and Rideau Veterans' Health Centre, Ottawa, Ontario, Canada

## ABSTRACT

Secure long-term care units come with a unique set of challenges, particularly around exit-seeking behaviour. Arts-based environmental interventions on secure units successfully reduce problematic behaviours, while simultaneously ensuring resident safety and improving resident quality of life. The present arts-based project enhanced a distraction mural intervention to incorporate magnets as a participative arts feature. The project was evaluated through a roundtable discussion with unit staff. Findings showed that in addition to reducing exit-seeking behaviour, the magnets provided an aesthetically engaging set of objects for residents to gather up and hold, to pause and explore, and to create order. Challenges with direct care staff are identified and future ideas for arts-based projects on secure units are considered.

## ARTICLE HISTORY

Received 11 July 2019

Accepted 23 November 2019

## KEYWORDS

Visual arts; secure unit; long-term care; dementia; environment

## Introduction

As the population ages, more older adults are moving into residential facilities that offer healthcare in a more familiar and comfortable environment (Verbeek, van Rossum, Zkwahalen, Kempen, & Hamers, 2009). Researchers and clinicians are challenged to develop innovative ways to simultaneously ensure the safety of older adults while also providing good quality of life. This challenge is particularly difficult in the context of secure long-term care (LTC) units (Fleming & Purandare, 2010; Marquardt, Bueter, & Motzek, 2014; Neubauer, Azad-Khaneghah, Miguel-Cruz, & Liu, 2018; Padilla, 2011). A unit is "secure" when access on and off the unit is controlled, typically requiring staff and visitors to punch in a memorized access code on a keypad adjacent to the secure unit door. Residents usually do not have the access code, thus restricting their unaccompanied movement out of the unit. Impeded freedom of movement contributes to residents' frustration, repeated attempts to open the door, and "exit-seeking behaviour," increasing demands on staff who have to help settle agitated residents and re-direct them away from the door (MacAndrew, Beattie, O'Reilly, Kolanowski, & Windsor, 2015; Moore, Algase, Powell-Cope, Applegarth, & Beattie, 2009; Van Hecke, Van Steenwinkel, & Heylighen, 2019).

Researchers continue to invent new interventions to dissuade exit-seeking behaviour, from anti-elopement technologies (Nelson & Algase, 2007; Neubauer et al., 2018) to arts-based projects (Cousins, Tischler, Garabedian, & Dening, 2019; Graham & Fabricius, 2017; Kincaid & Peacock, 2003). Arts-based environmental interventions such as the diversion mural, or *trompe l'oeil*, show particular promise for both reducing exit-seeking and enhancing residents' aesthetic experience of their living space (Jones & van der Eerden, 2008; Marwaha, 2014; Silverstein & Flaherty, 2003; Warner, 2000). While the murals are attractive, often featuring bookcases or furniture that create a more home-like ambiance on the unit, the fundamental goal is to disguise the unit door so that residents are not invited to engage with the door handles. This avoids potential for frustration when the door does not open.

Rice (2003) argued that hospital wards are marked by a sensory monotony: there is little change within a ward between smell, paint colour, or surface texture. For LTC residents, particularly those living on a secure unit, the persistent "sensory anaesthesia" of the space may reduce the quality of life (Rice, 2003, p. 5). It is not a space that encourages engagement, let alone creative engagement that builds one's sense of self. In his book, *The Courage to Create* (1975), Rollo May argues that the courage to create is "necessary to make *being* and *becoming* possible. An assertion of the self, a commitment, is essential if the self is to have any reality" (p. 13). The creative act, he argues, is an encounter that requires absorption, or being caught up and wholly involved in the process. However, the medicalized environment prioritizes safety, discouraging engagement that may risk residents' safety. Gawande (2014) wrote, "Medicine's focus is narrow. Medical professionals concentrate on repair of health, not sustenance of the soul" (p. 118). An unintended consequence of this approach is that LTC residents are conditioned to disengage from their environment, creating more barriers to creative expression. Even the vividly painted diversion murals deliberately rebuff any tactile engagement (e.g., exit-seeking behaviour) that the institution would want to decrease. The murals, however, have aesthetic potential to provide alternative forms of engagement.

The current project created an innovative environmental intervention by combining a distraction mural with the participative arts. Such interventions have been introduced into secure LTC units to encourage residents to engage with themselves and one another through an artistic medium (Kinney & Rentz, 2005; Tesch, 2013). Visual art has been shown to improve quality of life (Young, Camic, & Tischler, 2016), as well as feelings of social inclusion and improved mood, among people living with dementia (PWD) (Camic, Tischler, & Pearman, 2014; MacPherson, Bird, Anderson, Davis, & Blair, 2009; Rosenberg, Parsa, Humble, & McGee, 2009). Art gallery interventions have been beneficial because aesthetic perception remains stable for PWD (Graham, Stockinger, & Leder, 2013; Roe et al., 2016). This project enhanced the distraction mural by adding movable life-size magnets picturing household objects to the mural bookshelves. This paper will explain the process of creating the magnets for the participative arts installation, as well as the impact on residents.

## Programme rationale and goals

This arts intervention was implemented in September 2018, on a 20-bed secure specialized behaviour unit for male and female residents (average age of 68 years). The unit had opened seven months earlier and had no activity spaces, leaving residents to become bored and agitated and to engage in frustrated exit-seeking behaviour (e.g., standing near

the doors and repeatedly banging and shaking the push bar on the door). Residents were placed on this unit for a short time because their care needs exceeded the capacity of their regular LTC home. Since the residents were too frail to be stabilized at a regular psychiatric hospital, they entered this short-term-stay secure unit. The unit had two doorways: one exit doorway at one end of the unit, and a second doorway at the other end of the unit that separated the unit from another unit. The second doorway functioned as a wall, but the doors still had push bars that invited residents to attempt to open the doors. Both doors were painted with murals to deter exit-seeking, but only the second doorway which functioned as a wall was made into an interactive space. The objective of this arts intervention project was to deter residents from engaging with the door push bar at the second door by creating a mural that invited alternative modes of engagement with the space.

Building upon the concept of the distraction mural, an interactive mural was added to the space. The decision to create this interactive mural followed naturally from the diversion doors on wood surfaces to the present interactive mural on metal doors. In a previous distraction mural project, the artist noticed that residents became frustrated when they tried to remove the painted books from mural painted to look like a large bookcase. This observation inspired her to create a way for residents to physically remove (and replace) the objects and simultaneously reduce residents' frustration. The expert artist who designed and created the present intervention had been employed at the long-term care facility for 10 years at the time of the project, and had experience working with residents living on secure units. Over four weekdays, the metal doors were primed and painted. A mural of a bookcase with empty shelves left room for magnets to be added (see [Figure 1](#)). Magnets were designed by the artist on a computer and printed at a local print shop on thick magnetized material.

The objects were selected for their aesthetic appeal to both men and women. The magnetized life-size realistic images of antique household objects, knick-knacks, and memorabilia that would have been found on residents' own bookcases at home. Objects included antique china plates, a carousel horse, a babushka doll, a vase, and flowers, as well as ornate candle sticks, an antique clock, an antique 1920s toy car, stacks of books, and a ship in a bottle. These were placed on the painted bookshelves (see [Figure 2](#)). The magnets looked like real three-dimensional objects that were accessible to the residents and invited rearrangement (see [Figure 3](#)). The warm, home-like colours and overall aesthetic of the magnets contrasted the surrounding environment of medical objects, such as hand sanitizers, soiled linen carts, and the myriad large and small-scale pieces of medical equipment.

## Project evaluation

The efficacy of the project was evaluated six months after the installation. Project efficacy was evaluated in terms of resident engagement with the magnets, as well as observed change in the frequency of residents' exit-seeking behaviour and associated changes in the unit environment. A roundtable discussion was held with creative arts and recreation staff who worked on the unit. The 45-minute meeting was scheduled by a facility administrator and co-led by the researcher and artist who created the installation. Staff were provided with questions ahead of time so that they could gather their thoughts to share with the group. The four staff members who attended were guided through a set of semi-structured questions on a survey. Responses were documented in a notebook by the



**Figure 1.** Diversion door mural empty bookshelf.

artist. The rationale of holding a discussion with this set of staff was that they would be more attentive to the relationship between residents and the unit environment, and be more aware of how residents spent their time.

During the roundtable meeting, the staff reported that the magnets were beneficial to residents' quality of life in several ways. The magnets provided something for residents to gather and carry with them. They provided staff with a distraction to encourage residents to pause and rest. They also provided something aesthetically interesting and movable so that residents could arrange their space as they wanted, whether that meant placing magnets around the unit or creating order on the mural shelves. The quotations below represent the key themes that emerged in the discussion:

### ***Safe to gather***

A 79-year old female resident with advanced frontal lobe dementia was always busy on the unit. She moved through the unit all day long, gathering items she found around the unit. She had worked in a fast-paced job and was used to being busy. The magnets were something safe for her to gather and carry around, either in her purse or in her arms.

One of our guys was an academic. He is in his 60s. He published books, wrote papers, and taught at university or college. He also gathers the magnets and finds other places to put them – on other doors, window frames, the refrigerator in the dining room .... I saw him once tracing the outline of the magnet with his fingers.





**Figure 2.** Diversion door mural with magnets arranged on the bookshelves.

### ***Interrupting constant movement***

One of the residents in her late 60s lapped through the unit, back and forth between the doors. She tired herself out from moving all day. When I'm on the unit and see her moving, I use the magnets to help her pause. We look at the magnets and re-arrange the shelves together. It is a way to interrupt the constant movement to rest for a moment.



**Figure 3.** Examples of individual magnets placed on mural bookshelf.

### ***Creating order***

A 68-year old male resident helped me rearrange the shelf. The magnets look like real objects. He was in his wheelchair and was able to place the magnets on the lower shelves while I did the ones on the upper shelves. He was making sure the magnets were straight and that each

one fit on the shelf. At the time he had beginning aphasia, it is worse now, but when we were re-arranging the magnets together, I was trying to talk with him.

The above quotations illustrate the ways in which residents engaged with the magnets on the diversion door – gathering, pausing to visually and physically explore, and creating order in the space. Since the demography of the unit is younger and more mobile than on the regular dementia units, resident safety is a main concern. The magnets provided a set of safe objects for residents to handle and carry with them because they did not have sharp edges, they were too large to ingest, and they were too lightweight to become a weapon. Since the magnets were communal property, gathering the magnets did not incite conflict between residents as sometimes occurs if a resident has gathered the belongings from another resident's room.

During the roundtable meeting, the staff members explained that they played a part in the day to day life of the magnets. At the beginning of their shifts, they collected magnets that had been left around the unit on window frames, door frames, the refrigerator, or side tables, and replaced the magnets on the murals. Residents might rearrange the objects on the shelves, but did not consistently return magnets to the mural after taking them elsewhere in the unit. When staff needed to reclaim a magnet from a resident, they used the “trade method,” offering something else in exchange for the magnet, or they waited until the resident put the magnet down and then quickly took it back.

Staff members also mediated the interaction between residents and the magnets. When asked if more than one resident interacted with the magnets at the same time (in other words, did residents play with the magnets together), the staff explained that there was particular concern about altercations between residents. Thus, if staff (either direct care staff or creative arts and recreation staff) saw two residents at the doorway, one of the residents was quickly re-directed in order to avoid an incident between residents.

The staff all agreed that the diversion mural with interactive magnets reduced exit-seeking attempts. Importantly, the magnets provided an activity that distracted residents from pushing, banging, and shaking the door. The reduction in noise was important because there was another unit on the other side of the door and the sounds of frustrated residents upset the residents living on the other unit.

The staff responses reflect that the participative arts installation contributed to improving residents' quality of life on the secure unit. Daily experience on the unit improved with the reduction in frustrated exit-seeking attempts and the accompanying sounds of banging and rattling the door push bars. Residents and staff on the unit – and residents and staff from the unit on the other side of the doors on which the interactive mural was painted – experienced less anxiety as a result of decreased sounds of banging and rattling the door. Ingold (2011, 2015) argued that sound “emplaces” care and conveys the character of the people providing care and the quality of the care environment in which one is living. If the sounds of the unit are loud and jarring, residents are likely to feel unsafe and scared in the environment. The interactive wall reduced these frightening sounds, thereby improving residents' experience on the unit and their perception of the care staff and the environment in which they lived.

Finally – and importantly – there was some division of opinion between the staff who worked on the unit, specifically, between direct care staff and creative arts and recreation staff. While the value of the doors to reduce exit-seeking attempts was shared by all staff, the direct care staff felt that the magnets were “one more thing to watch.” Already



stretched thin while intensively caring for the high-needs residents on this special behaviour unit, it was reported in the meeting that the direct care staff worried about tidying up the magnets and keeping them out of residents' mouths. It should be noted that the only magnet that was torn was a candlestick which was thinner than the other magnets. The magnets did not pose a choking or safety hazard.

## Discussion and future creative activity

The evaluation found that the magnets were successful in deterring exit-seeking behaviour. The magnets also provided aesthetic objects for residents to gather, carry with them, rearrange, and experience alongside staff. This installation provided safe materials with which residents could engage and occupy themselves. The findings point to the benefits of arts-based environmental interventions for reducing unwanted physical expressions (*i.e.*, exit-seeking behaviour) among residents. The accounts and observations provided by the staff members signal the urgent need to provide residents with more than an anaesthetic environment, static and unchanging for the duration of their care.

There is an ongoing need to create participative art installations that improve the quality of life for residents living in LTC settings. Care environments with monotonous, static features do not promote resident engagement, nor do such environments foster positive relationships to self and to others. Moreover, the static medical environments marked by, as Rice (2003) said, "sensory anaesthesia" seem to exacerbate physical expressions of anxiety and experience of frustration, such as repeated exit-seeking attempts. Engaging art installations are a way to combat sensory anaesthesia and evoke encounters between the residents and the artwork. Residents' disengagement can be overcome and barriers to creative acts can be surmounted with continued resident-focused participative art installations, and the support of the unit staff. Additionally, through these interventions, the unit environment can be transformed into one that (in Rollo May's words) fosters the courage to create. Such a transformation would require a paradigm shift from the anaesthetic medical environment to a dynamic arts-based care environment that balances safety concerns with artistic engagement that sustains personhood. Importantly, this art installation did not present a threat to resident safety, showing that safety and materials for creative sustenance can co-exist in the space.

In the future, it will be important to explore the perspective of direct care staff, as well as residents' visitors, who are also attuned to how residents engage with the unit space. In the discussion group, the staff remarked on tensions between the creative arts and recreation perspective, and the perspective of the direct care staff. The tension hinged on safety concerns and the perceived added demand on the direct care staff to ensure the safety of the residents when the magnets were introduced. Knowing that the magnets were not hazardous to residents, the creative arts and recreation staff felt that the benefits to residents outweighed the costs, but the direct care staff still expressed disapproval of the project. As Gawande said, "if there's anything a decent nursing home is built for, it is safety" (2014, p. 74). Indeed, Gawande explains that the job of the medical staff is to support the quality of life, which means both freedom from disease and active engagement in the world; however, he notes, the former supersedes the latter, as human creativity falls beyond the purview of medicine. Additional attention needs to be paid to the standpoints of quality of life and creative engagement among direct care staff working in LTC.

In terms of data collection, the direct care staff need to be included, but their time is already overcommitted. Speaking with them for data collection draws resources from the care unit. An alternative method of data collection would be video recording at the installation and the surrounding space. Though ethically challenging, this would provide important information about when and how different residents engage with the art installation. This information would help to determine what proportion of the residents were interested in the art installation and whether any changes necessary to capture the interest of more residents.

Future plans for creative activity involve the addition of more participative art installations for the residents on the unit, particularly in consultation with direct care staff. If staff and residents are included in the decision-making process, their sense of participation and collective engagement in the installation might increase, creating relaxed and playful interactions with the residents. Following the installation of the interactive mural, the artist painted a “unit family tree” on another wall. The large leafy green tree included photos of everyone who lived and worked on the unit – residents, personal support workers, nursing staff, creative arts and recreation staff, kitchen staff, housekeeping staff, and one of the unit doctors. Though staff were photographed in their scrubs, they removed their name tags in order to reduce the status difference between themselves and the residents. Photos were protected in plastic on the wall and were arranged at random in order to erase any sense of social hierarchy – photos of nursing staff and the doctor mixed in with the photos of residents. Future work on the interactive mural could involve asking residents and staff to vote on which objects are created as magnets for the mural. Another way to engage direct care staff in the creative process would be to have a photobooth day where staff bring in a meaningful object from home for the artist to photograph and turn into a magnet. Once one the mural as objects, the staff would be able to share their personal stories with residents and other staff members, fostering a sense of community within the unit.

The focus of these projects is resident engagement, and staff to resident engagement, with aesthetically interesting materials that promote personal growth and creativity. These artistic spaces will continue to be furnished with safe materials that are not harmful to residents. Through discussions and collaboration with the direct care staff, it is hoped that future projects will continue to be supported and that the unit environment can be reshaped to promote residents’ expressions of creativity.

## Conclusion

The addition of the large-scale participative art installation with dynamic components was an aesthetic contrast to the anaesthesia of the otherwise medicalized space. The enhanced distraction mural with moveable magnets improved the daily experience on the unit by reducing the frequency of unsettling sounds created by residents’ frustrated banging and rattling the exit door push bars. Roundtable discussions with unit staff revealed that residents engaged with the magnets in different ways: gathering and holding onto magnets, pausing to explore the images, and rearranging the magnets to create order. Occasionally, a positive one-on-one social interaction between a staff member and a resident took place at the mural.

The paper discussed creative strategies for involving all staff members to ensure successful implementation of a participative arts installation. Engaging the direct care staff in the design of the installation may be a way to foster support for the project and avoid feelings of alienation among staff. Without direct care staff support, arts

installations may come to feel like an additional burden on staff workload, rather than a vital improvement to residents' quality of life. Plans for future research about this project include follow-up interviews with direct care staff and continued exploration of how different residents, visitors, and staff engage with the art installation over time.

## Disclosure statement

No potential conflict of interest was reported by the authors.

## Funding

This work was supported by the Social Sciences and Humanities Research Council of Canada [767-2015-1245];

## References

- Borgen, L., & Guldahl, A. S. (2011). Great-granny's garden: A living archive and a sensory garden. *Biodiversity and Conservation*, 20(2), 441–449.
- Bossen, A. (2010). The importance of getting back to nature for people with dementia. *Journal of Gerontological Nursing*, 36(2), 17–22.
- Camic, P. M., Tischler, V., & Pearman, C. H. (2014). Viewing and making art together: a multi-session art-gallery-based intervention for people with dementia and their carers. *Aging & Mental Health*, 18(2), 161–168. doi:10.1080/13607863.2013.818101
- Cousins, E., Tischler, V., Garabedian, C., & Dening, T. (2019). A taxonomy of arts interventions for people with dementia. *The Gerontologist*. Published ahead of print. doi: 10.1093/geront/gnz024.
- Fleming, R., & Purandare, N. (2010). LTC for people with dementia: Environmental design guidelines. *International Psychogeriatrics*, 22, 1084–1096.
- Gawande, A. (2014). *Being mortal: Medicine and what matters in the end*. New York, NY: Metropolitan Books.
- Graham, D. J., Stockinger, S., & Leder, H. (2013). An island of stability: Art images and natural scenes – But not natural faces – Show consistent esthetic response in Alzheimer's-related dementia. *Frontiers in Psychology*, 4(107), 1–8. doi:10.3389/fpsyg.2013.00107
- Graham, M. E., & Fabricius, A. (2017). Painting *in situ*: A report on the benefits of live mural painting for residents on two secure long-term care dementia units. *Arts & Health*, 10(3), 257–273.
- Ingold, T. (2011). *Being alive: Essays on movement, knowledge and description*. New York, NY: Routledge.
- Ingold, T. (2015). *The life of lines*. New York, NY: Routledge.
- Jones, G. M. M., & van der Eerden, W. J. (2008). *Reviews in Clinical Gerontology*, 18(1), 13–37. doi:10.1017/S0959259808002645
- Kaplan, S. (1995). The restorative benefits of nature: Toward an integrative framework. *Journal of Environmental Psychology*, 15(3), 169–182.
- Kincaid, C., & Peacock, J. R. (2003). The effect of a wall mural on decreasing four types of door-testing behaviors. *Journal of Applied Gerontology*, 22(1), 76–88.
- Kinney, J. M., & Rentz, C. A. (2005). Observed well-being among individuals with dementia: Memories in the Making®, an art program, versus other structured activity. *American Journal of Alzheimer's Disease and Other Dementias*, 20(4), 220–227. doi:10.1177/153331750502000406
- MacAndrew, M., Beattie, E., O'Reilly, M., Kolanowski, A., & Windsor, C. (2015). The trajectory of tolerance for wandering-related boundary transgression: An exploration of care staff and family perceptions. *The Gerontologist*. Advance online publication. doi: 10.1093/geront/gnv136.
- MacPherson, S., Bird, M., Anderson, K., Davis, T., & Blair, A. (2009). *Aging & Mental Health*, 13(5), 744–752. doi:10.1080/13607860902918207

- Marquardt, G., Bueter, K., & Motzek, T. (2014). Impact of design of the built environment on people with dementia: An evidence-based review. *Health Environments Research & Design Journal*, 8, 127–157.
- Marwaha, S. (2014). *Susanna*. Faces of health care. Retrieved from <https://healthydebate.ca/faces-health-care/hospital-murals>
- May, R. (1975). *The courage to create*. Toronto: George J. McLeod Ltd.
- Moore, D. H., Algase, D. L., Powell-Cope, G., Applegarth, S., & Beattie, E. R. A. (2009). A framework for managing wandering and preventing elopement. *American Journal of Alzheimer's Disease and Other Dementias*, 24, 208–219.
- Morgner, C., Hazel, S., Schneider, J., & Tischler, V. (2019). Conduct in dementia: Video analysis of arts interventions. *Sociological Research Online*
- Nelson, A. L., & Algase, D. L. (2007). Evidence-based protocols for managing wandering behaviors. New York, NY: Springer Publishing Company.
- Neubauer, N. A., Azad-Khaneghah, P., Miguel-Cruz, A., & Liu, L. (2018). What do we know about strategies to manage dementia-related wandering? A scoping review. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 10, 615–628.
- Neubauer, N. A., Lapierre, N., Ríos-Rincón, A., Miguel-Cruz, A., Rousseau, J., & Liu, L. (2018). What do we know about technologies for dementia-related wandering? A scoping review: Examen de la portée: Que savons-nous à propos des technologies de gestion de l'errance liée à la démence? *Canadian Journal of Occupational Therapy*, 85(3), 196–208.
- Padilla, R. (2011). Effectiveness of environment-based interventions for people with Alzheimer's disease and related dementias. *The American Journal of Occupational Therapy*, 65, 514–522.
- Rice, T. (2003). Soundselves: an acoustemology of sound and self in the edinburgh royal infirmary. *Anthropology Today*, 19(4), 4–9. doi:10.1111/anth.2003.19.issue-4
- Roe, B., McCormick, S., Lucas, T., Gallagher, W., Winn, A., & Elkin, S. (2016). *Dementia*, 15(4), 539–559. doi:10.1177/1471301214528927
- Rosenberg, F., Parsa, A., Humble, L., & McGee, C. (2009). Meet me: Making art accessible to people with dementia. New York, NY: Museum of Modern Art.
- Silverstein, N. M., & Flaherty, G. (2003). Strategies for managing wandering. *Geriatrics & Aging*, 6, 47–52. Retrieved from <http://orbis.cssam.com/files/content/2003/January/0601wandering.pdf>.
- Tesch, L. (2013). Evaluation report animated anthologies. *ISSUU.com*. Retrieved from [https://issuu.com/stephaniefinn5/docs/evaluation\\_report\\_animated\\_antholog](https://issuu.com/stephaniefinn5/docs/evaluation_report_animated_antholog)
- Van Hecke, L., Van Steenwinkel, I., & Heylighen, A. (2019). How enclosure and spatial organization affect residents' use and experience of a dementia special care unit: A case study. *HERD: Health Environments Research & Design Journal*, 12(1), 145–159.
- Verbeek, H., van Rossum, E., Zkwahalen, S. M., Kempen, G. I., & Hamers, J. P. (2009). Small, homelike care environments for older people with dementia. *International Psychogeriatrics*, 21, 252–264.
- Warner, M. L. (2000). Deterrents and diversions: Precautions for wandering. Elder Care Online. Retrieved from <https://www.ec-online.net/knowledge/articles/wandering3.html>
- Young, R., Camic, P. M., & Tischler, V. (2016). The impact of community-based arts and health interventions on cognition in people with dementia: A systematic literature review. *Aging & Mental Health*, 20(4), 337–351. doi:10.1080/13607863.2015.1011080