



# A qualitative interview study comparing and contrasting resident and staff perspectives of engaging in meaningful activity in a UK care home

Natasha Clarke\*, Raymond Smith, Julia Wood, Sian Koskela, Fiona Jones, Michael Hurley

Kingston University and St George's, University of London, Faculty of Health, Social Care and Education, 6th Floor Hunter Wing, Cranmer Terrace, London, SW17 0RE, United Kingdom

## ARTICLE INFO

### Keywords:

Meaningful activity  
Barriers  
Care staff  
Residential care  
Thematic analysis

## ABSTRACT

The provision of meaningful activities in care homes is essential for maintaining residents' mental and physical health, yet many do not get adequate opportunities to participate. This qualitative study explored resident and staff perceptions of engaging in meaningful activities in a residential care home for older people (aged over 65 years) in South London, UK. Nine residents and eleven staff members were recruited and their experiences explored through semi-structured interviews. Data were analysed thematically, and three themes emerged. (1) Appreciation of activity: both staff and residents were aware of the benefits of activity to physical and mental health, yet there was a lack of provision within the home. (2) Residents' desire for engagement: residents perceived themselves as active individuals who had previously enjoyed activities, and had goals that they wanted to achieve. This was in contrast to views of care staff, who perceived residents as inactive, lacking in motivation and sedentary due to intrinsic factors such as their age. (3) Impact of care home culture and physical space: staff and residents perceived different barriers to activity; staff reported they were often expected to take on multiple roles within the home leading to a lack of time to engage residents in activities, whilst residents perceived that the layout and design of the home hindered provision. It was concluded that comparing and contrasting views of residents and staff could assist residential homes to reach greater levels of shared understanding of activity provision and highlight particular areas to target for increasing activity engagement.

## 1. Background

As of 2017, 421,000 people aged 65 years or older were living in nursing or residential care homes in the United Kingdom (UK) (Laing & Buisson, 2014). The median length of stay in residential care homes is 462 days from time of admission until death (Forder & Fernandez, 2011), highlighting the need to provide care and activities for the long-term. Improving the quality of care for people living in care homes is a priority for the UK government (Department of Health, 2009) with participation in meaningful activities seen as crucial for providing good quality care (National Institute for Health & Clinical Excellence, 2015). Meaningful activity covers a broad spectrum of activities that are tailored to an individual's needs, whether physical, cognitive or social, including activities of daily living, or leisure activities in line with individual preferences (National Institute for Health & Care Excellence, 2013).

Numerous types of activity based interventions have been implemented to improve provision of meaningful activities in care homes

with positive results. For example, dancing to improve mental health (Guzmán-García, Hughes, James, & Rochester, 2013) and mentally stimulating board games to slow cognitive decline (Cheng et al., 2014). Despite the importance of maintaining activity, care home residents have been found to spend on average 79% of their day sedentary (Barber, Forster, & Birch, 2015). Sedentary behaviour is associated with cardiovascular disease, cancer and type-2 diabetes, as well as all-cause mortality (Biswas et al., 2015; Loprinzi & Frith, 2018) and mental health problems (Hamer, Coombs, & Stamatakis, 2014). Programmes to tackle low levels of activity in frail older adults can help to improve or maintain physical function (Harvey, Chastin, & Skelton, 2018). For people living with dementia, providing meaningful activities can help reduce the behavioural and psychological symptoms associated with the condition (Kales, Gitlin, & Lyketsos, 2015).

Despite the evidence and potential for improved health, quality of life and cognition, there are reported barriers for care home residents to engage in meaningful activities. Lack of adequate communication from staff (Benjamin, Edwards, Ploeg, & Legault, 2014), space in the care

\* Corresponding author.

E-mail addresses: [p1607544@sgul.ac.uk](mailto:p1607544@sgul.ac.uk) (N. Clarke), [rs198424@gmail.com](mailto:rs198424@gmail.com) (R. Smith), [J.Wood@sgul.kingston.ac.uk](mailto:J.Wood@sgul.kingston.ac.uk) (J. Wood), [siankoskela@gmail.com](mailto:siankoskela@gmail.com) (S. Koskela), [F.Jones@sgul.kingston.ac.uk](mailto:F.Jones@sgul.kingston.ac.uk) (F. Jones), [Micheal.Hurley@sgul.kingston.ac.uk](mailto:Micheal.Hurley@sgul.kingston.ac.uk) (M. Hurley).

<https://doi.org/10.1016/j.archger.2019.05.005>

Received 1 February 2019; Received in revised form 3 May 2019; Accepted 7 May 2019

Available online 07 May 2019

0167-4943/© 2019 Elsevier B.V. All rights reserved.

home (Kalinowski et al., 2012) and residents' frailty and fear of falling (Chen, 2010) have previously been found to negatively impact activity provision. However, providing effective training for staff (Smit, De Lange, Willemse, & Pot, 2017) and access to necessary equipment (Turpie, Whitelaw, & Topping, 2017) has been found to improve opportunities for activities.

There is a reported discrepancy between care staff and residents' perspectives on the reasons for low activity provision, with residents describing a lack of opportunity, motivation and feeling restricted by the environment, compared to care staff citing inadequate staffing levels and residents' cognitive decline (Harmer & Orrell, 2008). Differences in perceptions between staff and residents of what constitutes meaningful activity have also been found, with residents identifying that activities related to their past and which addressed their psychological needs were most meaningful; this was in contrast to staff, who placed more importance on attending to the physical needs of residents and attribute meaningfulness to the benefits of activity which maintain physical function (Harmer & Orrell, 2008).

Understanding perceptions of meaningful activity, and the barriers and facilitators to participation, can inform the development of interventions in care homes that are sustainable, meet the needs of residents and increase the likelihood of engagement (Chen, 2010). Therefore, the aim of this research was to explore perceptions of meaningful activity in order to understand any contrasting perspectives between care home residents and care staff to explore optimal opportunities for engaging in meaningful activities. The research questions were:

- 1 How do the perceptions of residents and care staff differ or merge in relation to the importance of meaningful activity?
- 2 What are the barriers and facilitators to actively engaging in meaningful activities perceived by the two groups?

## 2. Methods

This paper reports part of the Active Residents in Care Homes (ARCH) feasibility study (Koskela et al., 2017; Smith, Wood, Jones, Anderson, & Hurley, 2017; Wood, Anderson, & Smith, 2017). ARCH was a holistic, person-centred intervention designed to increase meaningful activity for older residents living in care homes, grounded in theories of occupational therapy (Kielhofner, 2008), and informed by the Medical Research Council (MRC) guidelines for developing and evaluating complex interventions (Craig et al., 2008). Over 12 months, the care home underwent a comprehensive assessment of environmental, structural and organisational factors, before a tailored programme, including training staff on and off the floor, was implemented by occupational therapists and physiotherapists. The aim of ARCH was to initiate a comprehensive programme of activities that would lead to sustainable systemic change within the home. This paper reports a qualitative study comparing and contrasting the perceptions of the importance of meaningful activity between care staff and residents prior to the ARCH intervention in one of the participating residential care homes.

### 2.1. Study site

The study was conducted in a care home in South London, UK. The home is located in a quiet residential area near public transport and shops. It has a residents' lounge, dining room, garden and patio area. The home has 22 resident places, and mostly caters for adults over the age of 65, with or without a diagnosis of dementia.

### 2.2. Participants

A convenience sampling approach (Gravetter & Forzano, 2011) was employed to recruit staff and residents. Residents and, when possible, their relatives were provided with written and verbal information about

the study. With advice from staff only residents who were cognitively able to discuss their experience of activity in the care home were approached with an invitation to participate in the interview. If they had capacity to consent they were asked to sign a written consent form following an opportunity to ask questions. If a resident lacked capacity to consent to take part, but expressed an interest in being interviewed, a relative was consulted to gain consent on their behalf. Process consent was followed as recommended by Dewing (2007) when including people with dementia in research.

For care staff, information was provided in writing, in the form of information sheets, and verbally at handover meetings and individually. All staff were invited to participate and offered the opportunity to ask questions. If they agreed to take part a mutually convenient time was arranged for an interview. It was made clear that participation was entirely voluntary and they could withdraw at any time. All participating staff provided written informed consent.

### 2.3. Data collection

Qualitative data were collected using in-depth semi-structured interviews by two researchers (SK & NC) experienced in conducting interviews with care home staff and older people. Topic guides developed by the researchers (one for staff and one for residents) were used in order to make sure all important topics were covered and to ensure consistency between researchers. The topic guides focussed on perceptions of the number of and types of activities provided in the home; willingness to engage with activity (for residents, taking part, and for staff, facilitating), and perceived barriers and facilitators to activity within the home. Interviews were conducted in a quiet area of the care home and were digitally recorded. Interviews lasted between 27 and 61 minutes.

### 2.4. Data analysis

All interviews were transcribed and anonymised before being uploaded to QSR International's NVivo 10 Software. Analysis was thematic (Braun & Clarke, 2006) and started during the data collection process. Transcripts were read multiple times in order for the research team to become familiar with the data. Initially, data analysis was conducted by two researchers (SK & NC), with three other researchers (RS, JW & FJ) consulted on the emerging themes. This was an iterative process which involved checking how well the themes fitted together and were represented in the data. The research team discussed the emerging themes and, after clarification, consensus was achieved about the final themes.

### 2.5. Ethical approval

Ethical approval was gained from the National Research Ethics Service (NRES) Committee London - South East in September 2014 (ref 14/LO/1329). The ARCH trial is registered as ISRCTN24000891.

## 3. Findings

Nine residents and 11 care staff members participated. Residents' ages ranged from 78 to 98, the majority (8) were female, and four had a diagnosis of dementia. Six were White British, two identified as White Other, and one Black Caribbean. Staff participants described themselves as care assistants, senior care assistants or team leaders (10), with one manager taking part. The majority were female (10).

Three overarching themes were identified: Appreciation of activity; Residents desire for engagement and Impact of care home culture and physical space (Table 1). Quotes from participants with pseudonyms are provided to illustrate identified themes and subthemes.

**Table 1**  
Themes and subthemes.

Themes	Subthemes
Appreciation of activity	Mental and emotional wellbeing Physical health Lack of stimulation
Residents desire for engagement	Remembering an active past Hopes and goals Staff perception of residents as an inactive group
Impact of care home culture and physical space	Staff stretched and under pressure Environmental barriers to activity

### 3.1. Appreciation of activity

Both residents and staff recognised the positive impact of meaningful activity on physical and mental health, but often discussed how the lack of current stimulation in the care home led residents to be sedentary much of the day. This theme has three sub-themes: mental & emotional wellbeing; physical health; and lack of stimulation.

#### 3.1.1. Mental & emotional wellbeing

Both residents and staff talked about the positive effect of meaningful activity on the mental wellbeing of residents, such as stimulating memory, improving attention, and for improving mood. For example, a member of staff described how playing music a resident enjoyed when younger had stimulated positive memories and visibly improved their mood. Another discussed how games helped residents interact with each other and focus their attention:

*“It makes them busy, it makes their mind work, so, and interact one with another, to each other. They talk. Sometimes they argue, ‘no, it’s my turn, no, you had your turn’.” Staff member (S10)*

Residents also recognised the effects of engaging in activity, and how it was important for them to relieve boredom and maintain thinking skills:

*“We rely a lot on [the activity coordinator] because she brings in questionnaires and we’ve got to use our brains and it’s good.” Resident (R1)*

As well as the positive impact of activity for residents, engaging with residents and delivering activity increased enjoyment and job satisfaction for some care staff. A staff member discussed how she found taking a resident with dementia out on walks rewarding, because even though she knew the resident would not remember the walk, they would be stimulated and talkative during it. Another talked about the effect a spontaneous singing session with residents had on both themselves and the residents:

*“I really, really enjoyed that day because I really had a laugh as well... They were laughing and I think they really feel energised after that, you know.” Staff member (S11)*

#### 3.1.2. Physical health

Residents and staff both appreciated the need for activity to stay physically healthy. One resident commented that, whilst they appreciated the need to keep active, they needed to motivate themselves as there was little support from care staff to engage in physical activity. When asked if the staff encourage residents to be physically active one resident replied:

*“No, I do it myself...well, loosen up, you know, loosening all your limbs up, you know.” Resident (R2)*

While a member of staff discussed that staff were aware of the importance of activity for maintaining mobility, they were often failing to facilitate it:

*“... we just had a staff meeting on Monday, we were just talking about some of the residents who literally spend all day in the armchair, you know, and that staff need to find the time, find the time to make them, take them for a walk, even if it’s round the building, round the ground floor, you know, because their mobility is getting quite poor because they’re not using their muscles and they’re not walking, you know.” Staff member (S9)*

#### 3.1.3. Lack of stimulation

Residents talked about a lack of stimulation within the care home, leading to them being sedentary and feeling bored much of the day. They described a reliance on an external activity coordinator, who visited the home twice a week for one hour, and limited support from care staff with any activities:

*“There’s nothing, you see. And I never was a reader and I can’t read much, can’t read it. And television bores me terribly.” Resident (R1)*

Doing activities outside of these group sessions required self-motivation, but with limited opportunities residents undertook mostly sedentary pursuits such as reading or watching television, or would passively observe others. For example, a resident, who was hard of hearing, reported that this reliance on activities provided by the activity coordinator was inadequate, as she could not hear conversations or the music that was played in activity sessions. This led to feelings of frustration about her hearing loss and not being able to take part:

*“I don’t hear what the conversation is about. She gives me notes to see what the discussion is going to be about I can’t hear what people actually talk about, I can’t follow it. I can’t hear the music either... I feel frustrated with being deaf and not being able to take part.” Resident (R7)*

In line with resident perceptions of low activity levels, staff also recognised there was a lack of stimulation within the home beyond the group activities provided by the activity coordinator. Staff thought residents particularly lacked opportunities for stimulation outside of the care home:

*“We do activities but I think sometimes the residents they need to go out and get fresh air, see different things as well, not just in the home.” Staff member (S11)*

This theme shows how residents and staff appreciated the benefits of meaningful activity on the mind and body for residents, and how facilitating activities for residents led to increased job satisfaction and enjoyment for staff. However, despite a shared recognition of the positivity of activity, both groups identified a lack of stimulation in general within their care home. Views diverged around potential barriers and facilitators to activity, such as residents’ desire for engagement and staff perceptions of residents as inactive.

### 3.2. Residents desire for engagement

This theme highlights the range of activities residents had enjoyed before moving into the care home and what kinds of activities they would like to see in the home or take part in. There are three sub-themes: remembering an active past; hopes and goals; and staff perception of residents as an inactive group.

#### 3.2.1. Remembering an active past

Residents described their lives before moving in to the home, reminiscing about previous activities they enjoyed, with a sense of pride and now loss. They talked of previous activities they valued, including knitting, playing golf and football. For example, one talked about how he missed playing snooker and wished he could still play, while another described the positive impact of playing golf:

*“...I’d love, I loved going some ... I don’t expect to play, I had to give up*

*golf several years ago... And in fact, you know, the friendships out of it. You play with people you get to know very well.” Resident (R1)*

This illustrates the wide range of interests and skills residents had, and opportunities to support continuity between resident’s past and current lives which were sometimes missed.

### 3.2.2. Hopes & goals

Residents talked about both general and specific goals and accomplishments they would like to achieve for themselves. This included playing more games, drawing or knitting, walking more, socialising more with other residents and working on their hobbies. As a resident explained:

*“I like using my camera a bit and I’m hoping I might be able to buy a printer so I can print some out.” Resident (R7)*

Some residents wanted to improve their mobility and take part in more physical exercise:

*“At the moment I am only walking up and down to my bedroom. I’m trying to use my stick as I’m trying to build my confidence. ... I want to use a stick [instead of a frame] as I’m hoping to get better.” Resident (R10)*

### 3.2.3. Staff perception of residents as an inactive group

In contrast to views that emerged from discussion with residents, who were interested in activity, staff talked about residents being inactive and lacking motivation. They appeared to lack awareness of any individual activity goals held by residents. Care staff sometimes referred to residents ‘giving up’ when they moved in, subsequently relying on staff to do things for them and content to do little. Age was perceived as a particular barrier. As such, residents were not supported or encouraged to pursue their hopes and goals.

*“...they’re not as able as they were. So you have to think sometimes well, would I want to do that if I was their age, you know. I would probably be quite happy to sit and watch the television or read the paper or... you can take a horse to water but you can’t make it drink.” Staff member (S9)*

Care staff also felt that residents were often uninterested in certain activities and described how in the past residents living in the home had been younger and more active. There was an overall perception that residents preferred to, for example, sit and watch television. One staff member reflected on whether they were doing the right things to motivate residents:

*“...in fact they only had to come out to the dining room and sit at the table, they just didn’t want to know. It’s just trying... Just don’t know how to motivate them maybe.” Staff member (S8)*

This theme has highlighted how residents have personal goals and desires to engage in meaningful activity, but that care staff perceive they are generally uninterested in activities or prefer to be inactive. Along with this disconnect surrounding residents’ desire for activity and staff seeing them as an inactive group, the unique care home culture also had an impact on activity levels and the perceptions of what was possible.

## 3.3. Impact of care home culture and physical space

This theme illustrates how staff and residents referred to care home life in general. Care staff reported feeling under pressure and lacking adequate time to deliver activities, with barriers to activity sometimes beyond their control. Two sub-themes contributed: staff stretched and under pressure, and environmental barriers.

### 3.3.1. Staff stretched & under pressure

Care staff discussed their role within the care home and described a

culture where they felt pressured to take on other roles and tasks at the expense of delivering activities. Physical care needs of residents were prioritised and as staff described being stretched this led to feelings of having inadequate time available to properly care for residents. Care staff also often saw activity as a separate task, such as baking a cake together, that required specific time to facilitate, as opposed to something that could be built in to residents’ everyday lives. Further, care staff reported they were often asked to fulfil many different roles within the home that prevented them from focussing on their role as a care provider.

*“...it’s only on Tuesdays we have more staff, but the rest of the time we don’t have enough staff to do all these activities... you’re doing your care plan as well, you’re doing your washing, you’re doing so many things the same time, we don’t have enough time.” Staff member (S10)*

This lack of defined job roles led to pressure on staff, with a lack of time to spend with residents, with staff feeling they were just doing the best they could.

### 3.3.2. Environmental barriers to activity

Residents discussed aspects of the care home environment that distracted them from participating in activities, such as noise from the television or other people’s conversations. This made tasks that required concentration, like reading, more difficult. The home was generally described as noisy, disorderly and somewhat chaotic, with residents lacking control over their lives due to its unpredictable nature:

*“I never know who’s coming [to the care home]... don’t know who it is, what I have to do...” Resident (R4)*

Limited space in the home and layout of furniture often inhibited activities and social interaction. One resident talked about wanting to play board games, but this was not possible as there was nowhere to put the board. Another described the impact that lack of control over their environment had on resident’s opportunities to engage with each other.

*“No, well, I know [resident] over the other side. But she’s got Parkinson’s disease... I’m not sitting near her so I don’t talk to anybody really. Because now they’ve brought new furniture in, I’m sitting on a settee.” Resident (R8)*

This theme shows how sometimes residents and staff perceived aspects of the care home environment and culture to negatively impact on their engagement in meaningful activities. While staff felt pressure from having to complete their daily tasks, including ones not seen as part of their job role, residents were inhibited by environmental barriers inherent in the care home space and day-to-day functioning.

## 4. Discussion

The aim of this study was to explore the experiences of residents engaging in meaningful activity and of care staff supporting them in a residential care home. Resident and staff perceptions were compared and contrasted, and different barriers and facilitators to activity are apparent. Both staff and residents were aware of the benefits of meaningful activity to physical and mental health, yet there was a lack of provision within the home. Staff perceptions of residents as inactive acted as a barrier to activity, while opportunities to facilitate meaningful activity, such as taking steps to achieve residents’ personal goals, were missed. Staff perceived a lack of time to engage residents in activities due to taking on multiple roles within the home, whilst residents saw the layout and design of the home as barriers.

The low level of physical and meaningful activity provision within the home reflected previous findings of high rates of sedentary behaviour in care homes (Barber et al., 2015). Yet, both residents and staff appreciated the value of activity. In particular, they discussed positive effects on physical health and emotional wellbeing for residents, and enjoyment for staff. Residents were motivated to achieve physical

health goals, engage in activities which could help their mobility, and take up or maintain hobbies. This contrasts with other studies which reported residents refrain from engaging in physical activity due to physical health problems, frailty and fear of falling (Chen, 2010). The Chen (2010) study was conducted in Taiwan and so our different findings may reflect cultural differences in how elderly care home residents are cared for, or methodological differences between studies for example including residents of different ages and physical ability. This may be an interesting avenue of further research in care homes, as building on personal goals has been found to be a facilitator of both physical behaviour change and meaningful activity for older adults (Floegel et al., 2016; Myllykangas, Gosselink, Foose, & Gaede, 2002). In the current study, care staff sometimes perceived residents as inactive and not wanting to engage in physical activity. They did not always recognise residents as individuals with needs, hopes, desires and goals. This could act as a barrier to activity provision, with the contrast between residents' level of engagement and staff perceptions of residents suggesting the importance of improving staff understanding of residents as people who have individual needs. Building on findings by Smit et al. (2017) that staff training can facilitate greater meaningful activity provision, educating care staff on ways to realise, support and encourage residents' hopes and goals for achieving activities could increase engagement within care homes.

The environment was reported by residents as a barrier to engagement, supporting the findings of Kalinowski et al. (2012) that lack of adequate space in the care home can impact provision of activities. Residents described how the physical environment of the home could limit their activity through insufficient space, and they often had a specific seat in the communal area, with little choice over where this was placed or which other residents they could socialise with. This was seen to have a disabling effect, hindering activities such as talking between residents. Harmer and Orrell (2008), who previously compared views of residents with dementia, staff and family carers of meaningful activity engagement, also found that residents highlighted a disabling environment as a reason for lack of activity. This was in contrast to staff, who cited time pressures as a key reason to low activity provision, as was found in the current study. Tackling environmental restrictions in the home, creating or better utilising space, and enabling greater autonomy so that residents can engage with their environment would increase opportunities for activity. Helping care staff to perceive activity as something integrated into their daily work, through training and modelling of senior staff, could also be beneficial. These findings reflect the importance of a holistic approach to exploring barriers and facilitators to meaningful activity in care homes, as residents and staff offer different valuable perspectives.

Our findings that meaningful and personally valued activities could assist with engagement echo that of other studies. Harmer and Orrell (2008) found that staff and residents identified musical activities, singing and listening to music from their era, as stimulating and enjoyable. Activities such as musical engagement could be a beneficial and affordable activity in care homes for residents with and without dementia. Residents reminisced about their previously active lives with a sense of pride, but also how this was now lost. This supports previous findings that activities are often more meaningful to residents when they relate to their past. Building on these findings could facilitate meaningful activity within the home, increasing staff understanding that motivation for engagement may be different depending on resident's activity levels before entering the home. Using resident's previous experiences could create a connection between activities residents used to enjoy and current care home life.

Our findings confirm that despite the benefits of meaningful activity, and steps by regulatory bodies to increase activity provision within residential care (NICE, 2015), there is still a chronic lack of opportunities for resident engagement. This was despite both residents and care staff being aware of the positive impact of activity on physical and emotional well-being, and staff recognising that there should be

more opportunities provided for residents to engage. Building on this awareness, and targeting environmental barriers and time pressures on staff, while exploring resident's individual hopes, goals and past active lives could help increase activity provision. This has potential to reduce sedentary behaviour for residents, whilst increasing their mental and physical health, and improve job satisfaction and enjoyment for care staff.

## 5. Limitations

This study was conducted in one care home in South London and included a relatively small sample of participants. Care staff may have been wary of portraying the home in a negative light, particularly as interviews were conducted as part of the larger ARCH intervention which was running in the home for a lengthy period of time. Residents might also have had concerns about discussing negative views of the home, although confidentiality was assured and maintained throughout the study. Despite these limitations, the data were rich and adequately captured the perceptions of both staff and residents.

## 6. Conclusion

Through thematic analysis of semi-structured interviews, we found that provision of meaningful activities was low, despite both residents and staff appreciating the benefits of activity. Residents had personal hopes and goals, but staff perceived residents as inactive and were under pressure working in an often chaotic environment. This negatively impacted resident wellbeing and staff job satisfaction. By understanding the complex factors that influence activity levels from the view of staff and residents, organisations can gain a deeper understanding of current perceptions of activity within the home and potential barriers and facilitators, through which enhanced activity provision can be achieved. Future research should explore these findings in a wider context, as differences in resident and staff demographics, individual care home cultures, and the wider community may impact experiences and perceptions of meaningful activity.

## Funding

This work was supported by The Chartered Society of Physiotherapy's Charitable Trust.

## Declarations of interest

None.

## References

- Barber, S. E., Forster, A., & Birch, K. M. (2015). Levels and patterns of daily physical activity and sedentary behavior measured objectively in older care home residents in the United Kingdom. *Journal of Aging and Physical Activity*, 23(1), 133–143. <https://doi.org/10.1123/JAPA.2013-0091>.
- Benjamin, K., Edwards, N., Ploeg, J., & Legault, F. (2014). Barriers to physical activity and restorative care for residents in long-term care: A review of the literature. *January Journal of Aging and Physical Activity*. <https://doi.org/10.1123/JAPA.2012-0139>.
- Biswas, A., Oh, P. I., Faulkner, G. E., Bajaj, R. R., Silver, M. A., Mitchell, M. S., et al. (2015). Sedentary time and its association with risk for disease incidence, mortality, and hospitalization in adults: a systematic review and meta-analysis. *Annals of Internal Medicine*, 162(2), 123–132. <https://doi.org/10.7326/M14-1651>.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Chen, Y.-M. (2010). Perceived barriers to physical activity among older adults residing in long-term care institutions. *Journal of Clinical Nursing*, 19(3–4), 432–439. <https://doi.org/10.1111/j.1365-2702.2009.02990.x>.
- Cheng, S.-T., Chow, P. K., Song, Y.-Q., Yu, E. C. S., Chan, A. C. M., Lee, T. M. C., et al. (2014). Mental and physical activities delay cognitive decline in older persons with dementia. *American Journal of Geriatric Psychiatry*, 22(1), 63–74. <https://doi.org/10.1016/j.jagp.2013.01.060>.
- Craig, P., Dieppe, P., Macintyre, S., Health, P., Unit, S., Michie, S., et al. (2008). Developing and evaluating complex interventions: The new Medical Research Council guidance. *British Medical Journal*, 337(September), 1655. <https://doi.org/10.1136/bmj.337.7694.1655>.

- 1136/bmj.a1655.
- Department of Health (2009). *Living well with dementia : national dementia strategy. Living well with dementia a national dementia strategy, Vol. 2009* <https://doi.org/291591b1p4k>.
- Dewing, J. (2007). Participatory research: A method for process consent with persons who have dementia. *Dementia*, 6(1), 11–25. <https://doi.org/10.1177/1471301207075625>.
- Floegel, T. A., Giacobbi, P. R., Dzierzewski, J. M., Roberts, B., McCrae, C. S., & Buman, M. P. (2016). Intervention markers of physical activity maintenance in older adults. *American Journal of Health Behavior*, 87(1), 124–138. <https://doi.org/10.1016/j.neuron.2015.05.044.HTR7>.
- Forder, J., & Fernandez, J.-L. (2011). *Length of stay in care homes*. Retrieved from [www.pssru.ac.uk](http://www.pssru.ac.uk).
- Gravetter, F. J. G., & Forzano, L.-A. B. (2011). *Research methods for the behavioral sciences*. Wadsworth. Retrieved from [https://books.google.co.uk/books/about/Research\\_Methods\\_for\\_the\\_Behavioral\\_Scie.html?id=pl04dzBpHy0C&redir\\_esc=y](https://books.google.co.uk/books/about/Research_Methods_for_the_Behavioral_Scie.html?id=pl04dzBpHy0C&redir_esc=y).
- Guzmán-García, A., Hughes, J. C., James, I. A., & Rochester, L. (2013). Dancing as a psychosocial intervention in care homes: A systematic review of the literature. *International Journal of Geriatric Psychiatry*. <https://doi.org/10.1002/gps.3913>.
- Hamer, M., Coombs, N., & Stamatakis, E. (2014). Associations between objectively assessed and self-reported sedentary time with mental health in adults: An analysis of data from the health survey for England. *BMJ Open*, 4(3), 1–7. <https://doi.org/10.1136/bmjopen-2013-004580>.
- Harmer, B. J., & Orrell, M. (2008). What is meaningful activity for people with dementia living in care homes? A comparison of the views of older people with dementia, staff and family carers. *Aging & Mental Health*, 12(5), 548–558. <https://doi.org/10.1080/13607860802343019>.
- Harvey, J. A., Chastin, S. F. M., & Skelton, D. A. (2018). Breaking sedentary behaviour has the potential to increase / maintain function in frail older adults. *Journal of Frailty Sarcopenia and Falls*, 3(1), 26–34. <https://doi.org/10.22540/JFSF-03-026>.
- Kales, H. C., Gitlin, L. N., & Lyketsos, C. G. (2015). Assessment and management of behavioral and psychological symptoms of dementia. *The British Medical Journal*, 1–16. <https://doi.org/10.1136/bmj.h369>.
- Kalinowski, S., Wulff, I., Kölzsch, M., Kopke, K., Kreutz, R., & Dräger, D. (2012). Physical activity in nursing homes—Barriers and facilitators: A cross-sectional study. *Journal of Aging and Physical Activity*, 20(4), 421–441 Retrieved from <http://www.humanmankinetics.com/acucustom/sitename/Documents/DocumentItem/02Kalinowski>
- JAPA\_20110181.pdf.
- Kielhofner, G. (2008). *Model of human occupation: Theory and application*. Philadelphia: Lippincott Williams & Wilkins.
- Koskela, S. A., Jones, F., Clarke, N., Anderson, L., Kennedy, B., Grant, R., et al. (2017). Active Residents in Care Homes (ARCH): Study protocol to investigate the implementation and outcomes of a whole-systems activity programme in residential care homes for older people. *Physiotherapy (United Kingdom)*, 103(1), 113–120. <https://doi.org/10.1016/j.physio.2015.12.001>.
- Loprinzi, P. D., & Frith, E. (2018). Effects of sedentary behavior, physical activity, frequency of protein consumption, lower extremity strength and lean mass on all-cause mortality. *Journal of Lifestyle Medicine*, 8(1), 8–15. <https://doi.org/10.15280/jlm.2018.8.1.8> Journal.
- Laing & Buisson (2014). *Care of older people UK Market Report 2013/14* (26th ed.). London: LaingBuisson.
- Myllykangas, S. A., Gosselink, C. A., Foose, A. K., & Gaede, D. B. (2002). Meaningful activity in older adults: Being in flow. *World Leisure Journal*, 44(3), 24–34. <https://doi.org/10.1080/04419057.2002.9674276>.
- National Institute for Health and Care Excellence (2013). *Mental wellbeing of older people in care homes, (December)*. Retrieved from <https://www.nice.org.uk/guidance/qs50%5Cnhttp://publications.nice.org.uk/mental-wellbeing-of-older-people-in-care-homes-qs50#close>.
- National Institute for Health and Clinical Excellence (2015). *Older people: Independence and mental wellbeing. NG32* (December 2015). Retrieved from National Institute for Health and Clinical Excellence <https://www.nice.org.uk/guidance/ng32>.
- Smit, D., De Lange, J., Willems, B., & Pot, A. M. (2017). Predictors of activity involvement in dementia care homes: A cross-sectional study. *BMC Geriatrics*, 17(1), 1–19. <https://doi.org/10.1186/s12877-017-0564-7>.
- Smith, R., Wood, J., Jones, F., Anderson, L., & Hurley, M. (2017). Active residents in care homes: A holistic approach to promoting and encouraging meaningful activity for residents living in care homes (innovative practice). *Dementia*. <https://doi.org/10.1177/1471301217727129> 147130121772712.
- Turpie, L., Whitelaw, S., & Topping, C. (2017). Physical activity promotion in care homes. *Working With Older People*, 21(4), 206–214. <https://doi.org/10.1186/1475-2875-11-425>.
- Wood, J., Anderson, L., & Smith, R. (2017). ARCH: Active residents in care homes. *Journal of Dementia Care*, 25(5), 16–17. Retrieved from <http://eprints.kingston.ac.uk/39177/>.