

AMPS, Architecture_MPS; London Southbank University
09—10 February, 2017

CRITIQUE OF BUILT ENVIRONMENT PRACTICES IN CARE AND EXTRA-CARE SETTINGS FOR PEOPLE ACROSS THE AGEING LIFESPAN

Authors:

DR PRIMALI PARANAGAMAGE¹, DR EVANGELIA CHRYSIKOU²

Author Affiliation:

¹SCHOOL OF ARCHITECTURE AND DESIGN, UNIVERSITY OF LINCOLN

²UCL BARTLETT SCHOOL OF ARCHITECTURE, FACULTY OF THE BUILT ENVIRONMENT

BACKGROUND

Baby-boomers approaching old age brings an unprecedented demographic change and societal challenge. This affects the way we view and provide accommodation for people across the lifespan. The demand for extra-care housing as the preferred option of the 75+ age group is expected to increase, as emerging evidence support its contribution to improved well-being.¹ Also, older people by moving to extra-care might exercise control over their lives by planning ahead to move to more suitable accommodation before significant care needs develop². However, currently for most people moving is triggered by care needs, maintenance issues and security concerns; a move they consider as a 'home for life'³. In the UK, the provision developed primarily for older people means occupants either rent or purchase self-contained dwellings with agreements that cover care, support, domestic, social, community or other services⁴. Public funds for provision of care is increasingly scarce; models for care in the community are progressively explored and capital and running costs are expected to be kept low as the affordability of the next generation is on the decrease. Besides typologies needing to facilitate choice and control to older people, healthcare architects explore environments for salutogenesis, i.e. environments supporting health and sense of coherence^{5,6} for the need to accommodate an increasing demand for dementia; a need to maintain networks and family relations and most of all people's need to remain socially and economically involved and to age in place. This presents challenges and opportunities for the built environment, including unplanned and planned care⁷.

Gray⁸ associates locally integrated support networks as means of avoiding loneliness and isolation, facilitated by provision of long-term residence and active community involvement. In stable communities, local networks help with personal care and combat loneliness. Opposite, 'private restricted support network' focused on the household with a low level of external contact proved the least effective⁹. Therefore, facilitating mutual support in communities promotes wellbeing.

This paper focuses on whether accommodation for people across the lifespan can foster social connections to reap benefits of social capital important in later life.¹⁰ The paper aims to explore if current models of building types reconcile needs fully; or if a stronger evidence base is needed for new prototypes. For that, purpose-built typologies, where people tend to move to most often due to pressure by family, friends and professionals who foresee a better quality of life, are investigated for their capacity to foster social capital in ageing¹¹. Additionally, the ability to retain place identity and community networks¹² is revisited. This is important since for the very old, the notion of community may be compromised as fragility prevents maintaining networks and social contact. However, people still living in ordinary houses but who receive regular support from visiting trained staff, i.e. people in extra-care, present less impairment and multi-morbidities compared to people in care homes. For those people, improvements in social life inside extra-care homes helped reduce loneliness. Nevertheless, we

should consider that people tend to post-rationalise the choice to move¹³. This paper focuses on the relation of accommodation to the broader social network rather than the social networks in these facilities.

METHODOLOGY

To identify contributions to social capital in accommodation across the lifespan, we examined two very different types of accommodation: extra-care homes and a care home for dementia. These types sit at opposite ends of service provision for ageing: extra-care is closer to autonomy, requiring minimal environmental interventions. The dementia village, oppositely, requires specialised staff and built environment. As research in psychiatric settings indicated, user participation is essential for specialised buildings¹⁴. Thus, we involved the first group directly, through interviews. For the dementia village residents, though, direct involvement would require resources beyond the means of this research.

The locus of the study comprised rural extra-care homes in Lincolnshire as the geography and demographics present challenges not necessarily met in densely populated settings. Additionally, the dementia village of the Netherlands, was chosen for its' pioneering model compared to former institutional provision for dementia.

User-inclusive research involved two workshops on housing for ageing and individual interviews with stakeholders and end-users: one workshop with 30 service providers who ranged from staff who worked with older people on ground to decision makers at strategic level for older people's services and one workshop with 30 older people, plus individual interviews with 15 older people and service providers in Lincolnshire. Additionally, we conducted a socio-spatial analysis of the dementia village. The two groups differ considerably, therefore, any similarities found might present substantial value. To understand how community and care needs may be reconciled we talked to older people and service providers to establish the challenges and opportunities faced in local contexts. We conducted a series of workshops and interviews with service providers and people over 70, with varying degrees of disability, living in their own homes. Service providers ranged from those who had immediate contact with older people on a regular basis delivering a range of care services and people in strategic positions in the housing and care sector for ageing in Lincolnshire. It was less important to talk to people living in certain typologies because people could post rationalise their choice to move there. We also observed older people in three care homes in different geographical locations across the county. Further evidence was gathered on locations, plans and facilities of all Extra-care housing in Lincolnshire, strategic planning documents for Lincolnshire and literature reviews extending the current understanding of the typology. Then, as a learning exercise to inform the development of new prototypes, we also looked at the built environment of the first village-type accommodation for dementia, De Hogeweyk in Weesp, Netherlands. The Hogewey, accommodates patients with progressed dementia. Data collection involved literature review, maps, plans, photographs and two-day observation of common areas, indoors and outdoors. The physical environment was evaluated according to the current state of the art on built environments for dementia and moreover, a Space Syntax analysis using Depthmap software was performed, to understand the social logic of the spatial configuration of the village.

Finally, although small adaptations and retrofitting are important for the extra-care homes cohort of people, in this research we only looked at purpose built Extra-care homes.

FINDINGS

The current stock of Extra-care homes were generically similar in built forms, plans, and facilities which have developed as a large housing blocks towards the edge of town facilities to provide access to town centres (figures 1, 2).

Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally

AMPS, Architecture_MPS; London Southbank University
09—10 February, 2017



Figure 1: Typical setting in the neighbourhood

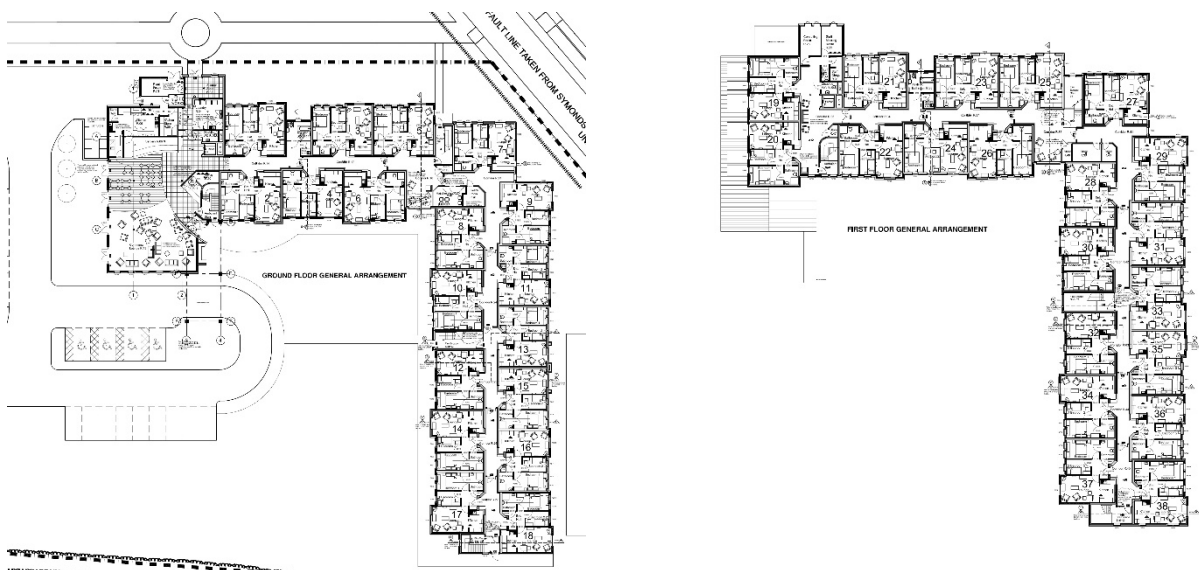


Figure 2: Typical floor plans

The need to deinstitutionalise Extra-care homes was a key message from older people and service providers. This was also the case behind the establishment of the Dementia village¹⁵ and the reason if its international appeal, i.e. the urge to de-institutionalise accommodation for people across the life-span. Regarding Extra-care, there was wish to remain in the community through downsizing. Characteristically, one decision making stakeholder expressed for working in rural communities, “*of older people in rural communities expressing a housing need,... looking to downsize but ... stay in their own community. They’ve got no alternatives, really. That’s part of the challenge for Lincolnshire ... There is a large proportion of older people in rural communities where they’d like to stay and I think where it would be most appropriate for them to stay because that’s where they have their networks. Uprooting and moving away from your own community in the later stages of life is not necessarily the*

best answer.” Moving to a place of own choice was regarded as a lifestyle change by the older people who wished to be empowered for this decision. They felt that they lacked the opportunity to downsize within their communities at an appropriate time; *‘before the limiting fall and not after’* as one stakeholder put it, to ensure continuance of networks to enjoy a better quality of life.

Older people stated a strong need for a range of tenures as they found *‘nothing much between owner occupied and sheltered accommodation now’*, describing the current models as not perceived as a life style choice for the varying range of affordability levels, and want to be helped to make the choice with sufficient information and guidance. A range of downsizing options in alternative locations planned around delivery of professional care as well as community based care can reap the benefit of the higher social capital in rural communities where even buses are described as mobile community centres¹⁶. Older people were clear about their needs and they conveyed that to decision makers: *“we’re recognising that older people, usually home owners, are taking the trouble to make us aware of their housing circumstances and future housing needs.... We also get a lot of feedback, about ... not need(ing) to build more affordable homes; allow older people to downsize, their homes would be recycled and could be available”*.

This lack of choice at various dependency levels in rural communities might create a discordance between need and provision. Thus, Extra-care homes might have to cater for more dependent people than the optimum. A decision-making stakeholder stated: *“people come to extra-care housing usually for a couple of years with a high level of need and that’s because there’s not enough. Whereas the concept of extra-care was intended to be a balanced community of needs and abilities, partly mutually sustaining...”*. This difference between original planning and dependency, does not allow care homes to be smoothly integrated in their communities, as they were not originally designed for their use. This creates isolation and breaks the flow of social capital. More analytically, expectations for mutual benefit in a ‘balanced’ community is believed to increase with reminiscence and social contact resulting from long term residency as intangible assets such as goodwill, bond and trust defined as Social Capital that develops among groups. Such intangible assets resulting from common values, attitudes and behaviours can become a resource to serve common goals/needs in older people. Social capital evolves depending on associated networks as a bonding capital usually among close kith and kin, family, friends, even perceived neighbourhood relations with an expectation of social support. A bridging social capital is built upon contacts and acquaintances. Elders need with younger people for continuity, emotional and practical support, a problem to those without children¹⁷. This is difficult to be sustained when extra-care homes, function as care homes for more dependent people.

Apart from the physiological characteristics of residents, physical networks and connections might be an additional challenge for rural communities. As the most disconnected county in the UK regarding road connections¹⁸, inadequate public transport and as a result, high car ownership rates need to think on care delivery to villages and the role of Extra-care in home based care. Moreover, service users are not a homogenous group. A service provider comments on this diversity; *“in Lincolnshire it’s got to be an organic way and a mixed economy of provisions because there are different aspirations across different parts of the area with older people coming from different backgrounds. Some people who are migrating in want to come to a particular type in a part of the world, and some are doing it because they’ve had to...”*. A home for life allows for mutual exchange between incoming older people to the county, who are known to be more affluent, long-time residents and those in Extra-care.

Typologies need to consider the diversity of localities to inform design. Service providers mentioned *‘that’s really important again in that wider context about people maintaining their social contacts, their family connections, their part time work, whatever that might be, that it has that focus as well’*. This is in accordance with literature¹⁹ suggesting that bonding in older age is affected by class, former occupation status, and gender, impacting on the support received, with neighbourhood contacts and frequency of meeting people having the greatest effect²⁰. With the few available Extra-care homes scattered across the vast geographical area in Lincolnshire, moving to an Extra-care home involved moving to a different geographical area even for a cohort of older people with lesser degrees of impairment.

Finally, care within and from the community depends on connections and social capital developed over time. More robust evidence based design that considers facilities and opportunities available at a range

of radius such as from 1m, to 4km considering the opportunity for active healthy ageing where connections can be built beyond the perimeter of the homes will simultaneously allow for social capital to evolve; for older people the happy places used on everyday basis is within a 4km radius from where they live and even buses are considered as community centres in rural communities who have a higher percentage of social capital. The design built forms including location and layout can have an impact on such community integration. The recent Housing white paper²¹, has reiterated the importance of these needs, expressed by the service providers *“The capital to make those changes is difficult because it’s market driven rather than driven by need. Whereas now there’s kind of a boom in construction of what you might call a granny flat... a place for things like dementia villages, if that’s what people want to live in, but then a lot of people also would rather still feel like they were a part of a more holistic community. And so there is more market development of that.”*

DISCUSSION

While the evidence base can shed more light, the current models hinder integration with neighbourhood. Typologies should respond to the specifics of the locality. Providers have felt this need and have incorporated a range of communal facilities that the surrounding community could use of such as shops, restaurants or even hair dressers. Currently, these must be accessed through the front door of care homes. This was also the case in the Dementia village, where similar integration was sought. It is not a surprise that the facilities are not used as expected in neither context. Reversing this order where possible or offering dual entrances could be an option to explore. This need for integration means that the urban design of the public, semi – public and private realm of individual houses should be resolved to create new typologies that are set in the mainstream neighbourhood morphologies.

Face to face interaction is facilitated by locally based solutions. The physical design of accommodation for ageing and their integration into the wider neighbourhoods can therefore impact on social capital which creates opportunity for forms of physical and psychological support in ageing bringing a range of benefits for older people. Opportunities for face-to-face interaction can foster a sense of belonging and reinforce norms and membership over time. By providing opportunities for formal and informal social interaction in public and semi-public spaces, and encourage residents to stay can contribute to the element of trust and reciprocity which in turn help to build social capital within a community. In the dementia village this was provided in the internal street network and communal areas, yet patients had to travel long distances to reach social places. For carers and especially older partners that could be a considerable burden as they too could face issues of frailty or neglect or spending time travelling regularly could even result in self-neglect.

The local neighbourhood remains key for social identity with weak ties making an important contribution to social capital in the UK²². Spontaneous interactions encourage a sense of trust and connection between people and the places they live. Accumulated over time, these connections have been theorised to be significant for fostering "a web of public respect and trust" and a resource in time of personal or neighbourhood need. These points that derived from literature and workshop findings and interviews of providers or people across the lifespan. All groups recognised the need to retain social networks and access to provision enabling social involvement and interaction.

The one-size-fits-all approach currently in place, is inappropriate for the urban or rural environments integrated in urban or village grains and morphologies. Older people do not perceive current Extra-care homes which have a spatial arrangement and morphology distinctive from the familiar neighbourhoods as a lifestyle choice to move to a new home. This familiarity was a key element behind the dementia village concept but again this regarded the internal configuration but not the actual sitting of the village in the town grid. Yet, since the Extra-care housing in Lincolnshire tend to be like hotels in scale and morphology resulting from rooms arranged around a lounge and a corridor, identifiable as an institution distinctive from the morphology and urban design patterns of the surrounding neighbourhood. The scale of people’s homes set in a landscape and geography create people’s identities and place making practices which should be taken account of in finding appropriate solutions²³. Contrary, the dementia village even though was accommodating people of decreasing cognition as well as people who faced challenges associating with their local neighbourhoods was deliberately shifting from that hotel model, as too

institutional. Thus, the design concept was to recreate the neighbourhood through smaller clusters (figure 3) of homes arranged in a so-called village configuration and each one presenting a different style to cater for the various personalities and tastes. However, issues such as the co-habitation with strangers and the inability to accommodate spouses as well as the peripheral location of the village were still the case.



Figure 3: Bird-eye view of Hogewey village

CONCLUSIONS

The research identified exclusionary building practices, which could impact on residents' interaction with personal and social networks including families. Overall, these exclusionary mechanisms that the isolated, fully enclosed typologies, might foster, eventually might endanger fragile bonding and bridging capital. This combined to the growing evidence encouraging socially inclusive practices. That could be achieved by revisiting and investing in existing village hubs, especially in those almost abandoned villages in deprived rural areas²⁴ and revitalise them as socially inclusive communities, active in silver economy.

In rural locations retirement destinations, could be developed in areas with a relatively flat topography and without extreme weather conditions and low house prices. Such an area could be Lincolnshire, where indeed the 65+ age group increased above national average. However, despite this potential, Lincoln has the fewest number of Extra-care housing in the UK²⁵. For that reason, it would be important to implement the current plan of building new facilities to cater for the projections for increasing demand.

New typologies in Extra-care need to be developed as they could contribute in developing and mobilising social capital among older people. The older people themselves as well as those working in older people's services are aware that *“Well, the housing sector is slightly on the back foot because housing still isn't necessarily seen to play that important role. But then of course it does”*.

This is ideal period for research to inform policy, as the White paper presented to the UK parliament²⁶ on 'Fixing our broken housing market' targets *“offering older people a better choice of accommodation can help them to live independently for longer and help reduce costs to the social care and health systems”*.

References

- ¹ Ann Netten, Robin Darton, Theresia Bäumker and Lisa Callaghan, “Improving housing with care choices for older people: an evaluation of extra care housing” (University of Kent, 2011), accessed February 15, 2017
- ² Jenny Pannell and Imogen Blood, “Supported housing for older people in the UK, an evidence review” (Joseph Rowntree Foundation, 2012), accessed February 18, 2017
- ³ Theresia Bäumker, Lisa Callaghan, Robin Darton, Jacquetta Holder, Ann Netten and Ann-Marie Towers, “Deciding to move into extra care housing: residents’ views”, *Ageing & Society* 32 (2012):1215-1245, accessed February 2, 2017, doi: <https://doi.org/10.1017/S0144686X11000869>
- ⁴ Moyra Riseborough and Peter Fletcher, “Extra care housing what is it?”, *Housing Learning & Improvement Network* (2015), accessed February 27, 2017.
http://www.housinglin.org.uk/_library/Resources/Housing/Housing_advice/Extra_Care_Housing_What_is_it.pdf
- ⁵ Aaron Antonovsky, *Health, Stress and Coping* (San Francisco: Jossey-Bass, 1979)
- ⁶ Aaron Antonovsky, *Unravelling the Mystery of Health: How People Manage Stress and Stay Well* (San Francisco: Jossey Bass Social and Behavioral Science Series, 1987)
- ⁷ Riseborough, Extra care housing what is it?
- ⁸ Anne Gray, “The social capital of older people”, *Ageing & Society* 29 (2009). 5–31, accessed February 10, 2017, doi: <https://doi.org/10.1017/S0144686X08007617>
- ⁹ G. Clare Wenger and Vanessa Burholt, “Changes in levels of social isolation and loneliness among older people in rural Wales: a 20-year longitudinal study”, *Canadian Journal on Ageing* 23 2(2004): 477–93, accessed February 3, 2017
- ¹⁰ Gray, The social capital of older people, 5–31
- ¹¹ Gray, The social capital of older people, 5-31
- ¹² Robin Darton, Theresia Bäumker, Lisa Callaghan, Jacquetta Holder, Ann Netten and Ann-Marie Towers, “The characteristics of residents in extra care housing and care homes in England”. *Health & Social Care in the Community* 20 1 (2011): pp. 87-96, accessed February 8, 2017, doi: 10.1111/j.1365-2524.2011.01022.x
- ¹³ Maria-Eugenia Prieto-Flores, Maria João Forjaz, Gloria Fernandez-Mayoralas, Fermina Rojo-Pérez and Pablo Martinez-Marti, “ Factors Associated With Loneliness of Noninstitutionalized and Institutionalized Older Adults”, *Journal of Aging and Health* 23(1) (2011): 177– 194, accessed February 10, 2018, doi: 10.1177/0898264310382658
- ¹⁴ Evangelia Chryssikou, *Architecture for psychiatric environments: Environments and therapeutic spaces* (Amsterdam: IOS Press, 2014)
- ¹⁵ “CNN’s world untold stories: Dementia Village” CNN, accessed January 28, 2017, <https://www.youtube.com/watch?v=LwiOBlyWpko>
- ¹⁶ Andy P Dickens, Suzanne H Richards, Colin J Greaves and John L Campbell, “Interventions targeting social isolation in older people: a systematic review”, *BMC Public Health* 11 (2011): 647, accessed February 9, 2018, doi: 10.1186/1471-2458-11-647
- ¹⁷ Maria Evandrou and Jane Falkingham, “Looking back to look forward: lessons from four birth cohorts for ageing in the 21st Century”, *Population Trends* 99 (2000): 31
- ¹⁸ Mike Batty, “Defining cities, regions and nations as percolation networks” (presentation at the 10th Space Syntax Symposium, London, United Kingdom, July 13-17, 2015)
- ¹⁹ Gray, The social capital of older people, 5-31
- ²⁰ Gray, The social capital of older people, 5-31
- ²¹ Department for Communities and Local Government, *Fixing our broken housing market*, Presented to Parliament by the Secretary of State for Communities and Local Government by Command of Her Majesty (UK: Williams Lea Group, 2017)
- ²² Douglas Robertson, James Smyth and Ian McIntosh, *Neighbourhood identity, people, time and place* (York: Joseph Rowntree Foundation, 2008)
- ²³ Janine L Wiles, Annette Leibling, Nancy Guberman, Jeane Reeve and Ruth E.S Allen, “The meaning of “ageing in place” to older people”, *Gerontologist* 52 3 (2012): 357-366., accessed February 8, 2017, doi: 10.1093/geront/gnr098
- ²⁴ Emanuele Giorgi & Tiziano Cattaneo, “Regeneration strategies to promote shared life and contrast the abandonment of rural settlements” (paper presented at the Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally conference, London, United Kingdom, February 9-11, 2017)
- ²⁵ Lincolnshire county council, “Putting people first: Extra care Housing strategy, Lincolnshire Adult Social Care 2009-2012”, accessed February 27, 2017, https://www.lincolnshire.gov.uk/upload/public/attachments/1122/extra_care_housing_strategy_v9_sept_2009.pdf
- ²⁶ Department for Communities and Local Government, *Fixing our broken housing market*

Bibliography

Andy P Dickens, Suzanne H Richards, Colin J Greaves and John L Campbell. “Interventions targeting social isolation in older people: a systematic review”. *BMC Public Health* 11 (2011): 647. Accessed February 9, 2018. Doi: 10.1186/1471-2458-11-647

Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally

AMPS, Architecture_MPS; London Southbank University
09—10 February, 2017

-
- Antonovsky, Aaron. *Health, Stress and Coping*. San Francisco: Jossey-Bass, 1979
Jossey Bass Social and Behavioral Science Series, 1987
- Antonovsky, Aaron. *Unraveling the Mystery of Health: How People Manage Stress and Stay Well*. San Francisco: Jossey Bass Social and Behavioral Science Series, 1987
- Bäumker Theresia, Lisa Callaghan, Robin Darton, Jacquetta Holder, Ann Netten and Ann-Marie Towers. "Deciding to move into extra care housing: residents' views". *Ageing & Society* 32 (2012):1215-1245. Accessed February 2, 2017. Doi: <https://doi.org/10.1017/S0144686X11000869>
- Chryssikou, Evangelia. *Architecture for psychiatric environments: Environments and therapeutic spaces*. Amsterdam: IOS Press, 2014
- CNN. "CNN's world untold stories: Dementia Village". Accessed January 28, 2017, <https://www.youtube.com/watch?v=LwiOBlyWpko>
- Darton, Robin., Theresia Bäumker, Lisa Callaghan, Jacquetta Holder, Ann Netten and Ann-Marie Towers. "The characteristics of residents in extra care housing and care homes in England". *Health & Social Care in the Community* 20 1 (2011): pp. 87-96. Accessed February 8, 2017. Doi: 10.1111/j.1365-2524.2011.01022.x
- Department for Communities and Local Government. *Fixing our broken housing market*, Presented to Parliament by the Secretary of State for Communities and Local Government by Command of Her Majesty. UK: Williams Lea Group, 2017
- Emanuele Giorgi and Tiziano Cattaneo. "Regeneration strategies to promote shared life and contrast the abandonment of rural settlements". Paper presented at the Living and Sustainability: An Environmental Critique of Design and Building Practices, Locally and Globally conference, London, United Kingdom, February 9-11, 2017
- Gray, Anne. "The social capital of older people". *Ageing & Society* 29 (2009): 5–31. Accessed February 10, 2017. doi: <https://doi.org/10.1017/S0144686X08007617>
- Evandrou, Maria and Jane Falkingham, "Looking back to look forward: lessons from four birth cohorts for ageing in the 21st Century", *Population Trends* 99 (2000): 27-36
- Lincolnshire county council, "Putting people first: Extra care Housing strategy, Lincolnshire Adult Social Care 2009-2012". Accessed February 27, 2017. https://www.lincolnshire.gov.uk/upload/public/attachments/1122/extra_care_housing_strategy_v9_sept_2009.pdf
- Mike, Batty. "Defining cities, regions and nations as percolation networks". Presentation at the 10th Space Syntax Symposium, London, United Kingdom, July 13-17, 2015
- Netten, Ann, Robin Darton, Theresia Bäumker and Lisa Callaghan, "Improving housing with care choices for older people: an evaluation of extra care housing". University of Kent, 2011. Accessed February 15, 2017
- Pannell, Jenny and Imogen Blood, "Supported housing for older people in the UK, an evidence review". Joseph Rowntree Foundation, 2012. Accessed February 18, 2017
- Prieto-Flores, Maria-Eugenia, Maria João Forjaz, Gloria Fernandez-Mayoralas, Fermina Rojo-Pérez and Pablo Martinez-Marti. "Factors Associated With Loneliness of Noninstitutionalized and Institutionalized Older Adults". *Journal of Aging and Health* 23(1)(2011): 177– 194. Accessed February 10, 2018. Doi: 10.1177/0898264310382658
- Riseborough, Moyra, and Peter Fletcher, "Extra care housing what is it?", Housing Learning & Improvement Network (2015), accessed February 27, 2017. http://www.housinglin.org.uk/library/Resources/Housing/Housing_advice/Extra_Care_Housing_What_is_it.pdf
- Robertson, Douglas, James Smyth and Ian McIntosh. *Neighbourhood identity, people, time and place*. York: Joseph Rowntree Foundation, 2008
- Wenger, Clare G., and Vanessa Burholt. "Changes in levels of social isolation and loneliness among older people in rural Wales: a 20-year longitudinal study". *Canadian Journal on Ageing* 23 2(2004): 477–93. Accessed February 3, 2017
- Wiles, Janine L., Annette Leibing, Nancy Guberman, Jeane Reeve and Ruth E.S Allen. "The meaning of "ageing in place" to older people". *Gerontologist* 52 3 (2012): 357-366. Accessed February 8, 2017. Doi: doi:10.1093/geront/gnr098