Health, Wellbeing and Resilience in Retirement Villages

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The Current Context in the UK:
The older population continues to grow

Figure 2.2: ONS 2006-based UK population projections (65+ years)
But the care home population is not increasing as a proportion of the populations in each age range.

<table>
<thead>
<tr>
<th>Age</th>
<th>Resident care home population, 2001</th>
<th>Proportion of usual resident population, 2001 (%)</th>
<th>Resident care home population, 2011</th>
<th>Proportion of usual resident population, 2011 (%)</th>
<th>Change in resident care home population between 2001 and 2011 (%)</th>
<th>Change in usual resident population between 2001 and 2011 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 and over</td>
<td>290,000</td>
<td>3.5</td>
<td>291,000</td>
<td>3.2</td>
<td>0.3</td>
<td>11.0</td>
</tr>
<tr>
<td>65–74</td>
<td>29,000</td>
<td>0.7</td>
<td>31,000</td>
<td>0.6</td>
<td>5.1</td>
<td>11.1</td>
</tr>
<tr>
<td>75–84</td>
<td>97,000</td>
<td>3.3</td>
<td>88,000</td>
<td>2.8</td>
<td>-9.2</td>
<td>6.2</td>
</tr>
<tr>
<td>85 and over</td>
<td>164,000</td>
<td>16.2</td>
<td>172,000</td>
<td>13.7</td>
<td>5.1</td>
<td>23.9</td>
</tr>
</tbody>
</table>

Table source: Office for National Statistics
Ageing in Place?

The majority of older adults in the UK still live in their original homes,

Independent living is often seen as synonymous with being able to care for oneself in one’s original home, and as the ideal.

Strategies are therefore focussed on enabling this where support is needed: home adaptations, provision of health and social care in the community.

“Ageing in Place” has become a concept people and systems aspire to.
The availability of suitable alternatives, or the knowledge that there are choices other than residential care, is beginning to enable people to have choices they may consider to be preferable to staying in their original homes if they have become unsuitable.

To enable choice, not just in a crisis, people need to be aware of the choices available.

But wherever people stay or move to, they and their families need to know that their homes and environments are adaptable to whatever changes ageing may throw at them in terms of their functional capabilities and need for care.
Ageing in Place?

Are you satisfied with your home? 90% of older people say “yes” (over 60s)

Vs

Would you like to move? 15.4% of the same older people say “yes”, (17.4% of the 70-79 year olds)

Vs

Do you need to move? 3% said “yes”

(Hillcoat-Nallétamby and Ogg, 2014)
Extra Care housing as an alternative?

Housing that has the aim of meeting
“the housing, care and support needs of older people while
helping them maintain their independence in their own private accommodation” (Netten et al, 2011).
Extra Care housing as an active ageing intervention?

Extra Care housing is usually purpose built with increasing attention to age friendly designs, ambient assisted living technologies, as well as a socially and physically accessible environment.
The study was based on the ExtraCare Charitable Trust’s model of independent supported living.

(i) Activity based support and personal development
(ii) Active engagement, e.g. volunteering
(iii) Community activities/membership of groups
(iv) Health assessment and promotion for all
(v) Enrichment/stimulation for residents with cognitive impairments (e.g. dementias)

Importantly, this model includes integrated health support with an on site nurse, called a well-being advisor, and drop in clinic, and also specific well-evidenced on-site support for people with cognitive impairment and dementia, who remain integrated.
What we set out to do

To examine the ways in which this active and independent ageing approach, has an impact on health, well-being and care costs.
The Questions

• Do such environments provide successful “pragmatic” interventions that have a positive impact on well-being, on cognition, on health, frailty and resilience, or on independence for the range of residents?

• Can we afford it?
The evidence

• The approach has a focus on active and healthy ageing, which includes the benefits of active engagement.

• Intellectual, Social, Physical engagement:
Or ......
First set of analyses were based on people from moving in to 18 months later (Holland et al., 2015), with measurements at baseline, 3 months, 12 months and 18 months.

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>3 mths</th>
<th>12 mths</th>
<th>18 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExtraCare</td>
<td>162</td>
<td>144</td>
<td>127</td>
<td>108</td>
</tr>
<tr>
<td>Control</td>
<td>31</td>
<td>32</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>176</td>
<td>160</td>
<td>137</td>
</tr>
</tbody>
</table>

Second set of analyses followed some of the same people, but also added new participants who had been living in Extra Care for the same amount of time. (Holland et al., 2019), assessing at 24, 36, 48 and a few at 60 months.

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>3 mths</th>
<th>12 mths</th>
<th>18 mths</th>
<th>24 mths</th>
<th>36 mths</th>
<th>48 mths</th>
</tr>
</thead>
<tbody>
<tr>
<td>ExtraCare</td>
<td>162</td>
<td>153</td>
<td>140</td>
<td>132</td>
<td>60</td>
<td>51</td>
<td>43</td>
</tr>
<tr>
<td>Control</td>
<td>31</td>
<td>33</td>
<td>33</td>
<td>36</td>
<td>30</td>
<td>45</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>186</td>
<td>173</td>
<td>168</td>
<td>90</td>
<td>96</td>
<td>55</td>
</tr>
</tbody>
</table>
Measures

• **Cognition**: ACE-III: Mioshi et al., 2006.
• **Autobiographical memory test**: (AMT) (Williams & Broadbent, 1986)
• **Depression and Anxiety**: (HADS) (Zigmond & Snaith, 1983).
• **Self-perceived health** ‘excellent, very good, good, fair, poor’ 5-1
• **Independence**: (IADL) (Lawton & Brody, 1969) and Functional Limitations Profile (Pollard & Johnson, 2001)
• **Health**: Self-reported diagnoses, BMI, BP
• **Physical assessment**: walking speed, sit-to-stand, grip strength
• **Frailty Index** (Accumulation of deficits model, including physical and psychological measures)
• **Health and social care utilisation and events** (e.g. falls)
• **Health behaviour** (diet, exercise, smoking etc)
Some examples of change over time in the measures we took

Well-being, cognition, physical fitness and Frailty/Resilience
Perceived health (adjusting for actual health): Group x time interaction F(1,588)=3.70, p<0.05
Self perceived health over 5 years.
Depressive symptomology

- Baseline: 3.5
- 3 months: 3.0
- 12 months: 2.8
- 18 months: 2.6
- 24 months: 2.4
- 36 months: 2.2

ECCT vs Control:
- ECCT: Higher depression scores at baseline and at the end of the 36 months period.
- Control: Lower depression scores compared to ECCT throughout the period.

Legend:
- ECCT
- Control
Anxiety

HADS-A score

Baseline  3 months  12 months  18 months  24 months  36 months  48 months  60 months

EC Residents

Control
By 5 years after moving in, residents’ anxiety is 23% less than it was at the start.
The lowest anxiety point was at 24 months, where it was 40% lower.
Over 36 months, both ExtraCare and control participants displayed a significant increase in exercise frequency (no interaction).
By the end of the 5 years, the increase in exercise for residents was almost 75%, or put another way, 1.75 times what they were doing at baseline.
Impacts of increase in exercise

Walking speed significantly improved over the period

Walking speed in metres per second

<table>
<thead>
<tr>
<th>Time (months)</th>
<th>Walking Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0.7</td>
</tr>
<tr>
<td>3 months</td>
<td>0.8</td>
</tr>
<tr>
<td>12 months</td>
<td>0.9</td>
</tr>
<tr>
<td>18 months</td>
<td>1.0</td>
</tr>
<tr>
<td>24 months</td>
<td>1.1</td>
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<td>36 months</td>
<td>1.2</td>
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<td>1.3</td>
</tr>
<tr>
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<td>1.4</td>
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EC Residents
A measure linked to effective functioning in social relationships, including intimacy and empathy (Alea & Bluck, 2003), has a role to play in building relationships and successful problem solving (Beaman et al, 2007).

Difficulties in retrieving specific autobiographical memories are a known risk factor for depression (Williams et al., 2007). particularly important in maintaining social and emotional well-being, and everyday functional capabilities in older adults (Leahy et al, 2018).

However, many older adults have difficulty recalling detailed memories of specific events and instead recall general memories, which has been linked to age-related declines in cognitive function (Holland et al, 2012).
Autobiographical specificity

Number specific memories out of 10

- Baseline
- 3 months
- 12 months
- 18 months
- 24 months
- 36 months
- 48 months
- 60 months

EC Residents
Controls
There’s a 24% improvement in memory amongst ExtraCare residents.
Frailty and Resilience

What do we mean by frailty?

An elevated state of risk?
   Definition: “a state of high vulnerability to the risk of adverse events when exposed to a stressor”

poor quality of life, co-morbidity, disability, dependency, hospitalisation, institutional admittance and death.

That is, frailty can be seen as the absence of resilience.
Measuring Frailty: A deficit accumulation model (e.g. Rockwood et al., 2006)
When Residents are examined separately, there is a significant reduction in frailty over the first 36 months. This is not significant over the 60 months, frailty increases again after 36 mths.

Over the 5-year period, there is no clear increase in frailty. This suggests that frailty increase with age still occurs, but is being delayed in the Extracare residents.
Healthcare use and costs are impacted

- 86.5% of residents are never or hardly lonely
- Risk of falls has reduced by 18%
- Hospital stays reduce by 31%
- NHS costs reduce by 38%
“You don’t have to sit on your backside when you’re getting older and do nothing”
Thank you!

Siobhan Blackwell
Danielle Clarkesmith
Richard Cooke
Ian Garner
Holly Gwyther
Amanda Kay
Jess Lambie
Leanne Liddell
Jennifer O’Donnell
Stuart Wallis

All this leads to
better lives for older people