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ORIGINAL INVESTIGATION

Negotiating and effectuating relocation to sheltered housing in old age: a Swedish study over 11 years

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Abstract The aim of this study was to explore how very old people consider and arrive at decisions on relocation, with specific attention to housing and health relationships during the process of ageing. The sample included 13 very old participants of an 11-year longitudinal study of relationships between housing and health. Applying a mixed-methods approach, data from qualitative interviews and quantitative survey data from three data collection waves were utilised. The quantitative data were interwoven with the qualitative findings into a coherent body of text. The core theme "Negotiating and effectuating relocation is a long process" indicates a non-linear process consisting of five phases constituting the main categories of our findings. In the first phase, some informants considered relocation while others avoided thinking about it. Next, relations between health and home changed and led to turning points triggering relocation, i.e. when dependence in everyday activities reached critical points or when sudden illness forced an involuntary move. In the third phase, once the decision to relocate was made it was set in stone by the individual, but often questioned by the authorities, leading to a situation causing much frustration. While waiting for the relocation, doubts as well as expectations about the new home were expressed. Finally, even though the actual move caused different feelings, it was most often a positive experience and resulted in subjective health improvement and increased social contacts. The results can be used for the development of positive, proactive strategies for improved housing provision along the ageing process.

Keywords Relocation process · Housing · Health · Qualitative data · Quantitative data · Mixed methods

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Introduction

The rapidly changing age structure of the population, with an increasing proportion of older people living longer than previous generations (Fries 2002), makes housing in old age an issue of vital importance. This holds for most Western societies, not least for Sweden, which has one of the oldest populations in the world (Batljan and Lagergren 2005). In many European countries, current policies on housing in old age focus on remaining at home as long as possible, despite considerable frailty and need for services and care (WHO 2002). However, it is known that when health declines, home does not always have a positive influence on health and quality of life, and can for some people be confining and worrying (Rubinstein and De Medeiores 2003). Thus, relocation can be preferable and/or necessary, while our knowledge of the dynamics underlying such decisions is insufficient, in particular since few recent European studies have been published on these issues.

Moving after retirement has become more common during the last decade, especially among well-functioning older people. In the US and Europe, relocation to some kind of purpose-built homes has increased during recent years (Oswald and Rowles 2007), while in Sweden, such housing options are scarce but under public debate.

Swedish municipalities are responsible for housing provision for all age groups, and older people constitute a very important target group (Blackman 2000). For a long time, the "remain at home policy" and cutbacks in public economy have led to a serious shortage of purpose-built housing options for older people. Thus, in Sweden, the vast majority of very old people live in ordinary housing, and relocation to sheltered housing is an alternative only for those who are very frail and in need of much assistance. Currently, in Sweden, "sheltered housing" is an umbrella term denoting several types of housing options with different levels of service. Sheltered housing ranges from service apartments with few or many social and health care service hours provided by ambulatory teams to units with 24-h service on site. It should be noted that the term "nursing homes" is no longer in use in Sweden, while some sheltered housing units with 24-h service have the traditional characteristics of such facilities. A specific but rather common type is small units for specific groups, most commonly persons with dementia. Most importantly, a needs assessment accomplished by the authorities underlies the decision to grant a person the permission to move into sheltered housing, as well as the decision on the type and amount of service provided. During 2000–2006, the proportion of people aged 80+ living in sheltered housing decreased from 20 to 16% (National Board of Health and Welfare 2007). Consequently, the readiness of public authorities to fulfil their responsibility for housing provision and services for older people is being questioned, and older people, their relatives and user organisations have serious concerns about the existing situation. On the other hand, older people in general express strong preferences to remain in ordinary housing as long as possible (see, e.g. Fänge and Dahlin Ivanoff 2009). Apart from press coverage, little is known about how very old people themselves reason about relocation in relation to anticipation of future needs and past experiences.

Declining health is an important predictor of relocation to sheltered housing in old age (Puts et al. 2005; Thomése and Broese van Groenou 2006), especially dementia (Bharucha et al. 2004). Moreover, declining health in combination with other factors, such as age and/or sex, cohabitation or not (Nuotio et al. 2003; Tomiak et al. 2000) are important. For example, in a Swedish study of very old people in an urban district, Larsson et al. (2006) found that among those living alone, especially dementia predicted relocation to sheltered housing. Among cohabiting participants, declining health and increased ADL dependence were the most important predictors. When people were asked retrospectively about reasons for relocation to sheltered housing, the most common reasons stated were declining health and increased dependence (Cheek et al. 2006; Svidén et al. 2002). According to Cheek et al. (2006), relocation to sheltered housing was not considered until it was unavoidable. Overall, in the international scientific literature, in particular from a European perspective, only scarce recent research-based knowledge on relocation in very old age is available, and hardly anything based on very old people's personal reasoning and experiences.

Further, it is noteworthy that most studies of relocation have primarily investigated personal aspects. We did not find any studies considering whether and how the home environment influences the relocation process, although such knowledge would increase our understanding of the dynamics underlying decisions on relocation. The complex relation between housing and health in old age can be understood based on the ecological theory of ageing (Lawton and Nahemow 1973), where the person is defined in terms of a set of competencies and the environment in terms of its demands, labelled environmental press. Referring to Lawton and Nahemow's docility hypothesis, persons with lower competencies are more sensitive to environmental press than those with higher competencies. In other words, in very old age the relationship between housing and health is significant due to the increased vulnerability to environmental challenges (Oswald et al. 2007). Thus, relocation can be seen as an action to change the social and physical environment, taken in order to accommodate to health changes that cannot be overcome in the present home (Chen and Wilmoth 2004; Reed et al. 2003), while recent empirical evidence for such mechanisms is scarce.

Population studies provide knowledge nurturing our understanding of relocation in old and very old age, while the complex dynamics involved cannot be truly understood and explained by means of quantitative studies alone. Thus, we need to increase our understanding of how ageing people themselves reason about relocation during the ageing process. To the best of our knowledge, no longitudinal studies have been published applying an in-depth approach elucidating how older people themselves negotiate and effectuate relocation, while politicians, authorities and stakeholders urgently need empirical evidence to nurture community planning and development in this field, in Sweden as well as in other European countries. The aim of this study was to explore how very old people consider and arrive at decisions on relocation during the ageing process, with specific attention to housing and health relationships.

Methods

Study design

This study is part of a longitudinal project investigating relationships between housing accessibility, ADL

dependence and subjective well-being in old age. The baseline data collection (T1) was accomplished in 1994/1995, targeting older people living in ordinary housing in a rural municipality in Southern Sweden, and applying survey methodology. Data were collected by means of structured observations and interviews, subsequently analysed using quantitative techniques (Iwarsson and Isacsson 1996; Iwarsson et al. 1998). The same data collection format, supplemented with a few questions (e.g. on relocation), was used for data collection with the persons who could be reached after 6 (T2) (Iwarsson 2005) and 10 years (T3) (Werngren-Elgström et al. 2008). Thereafter, in 2006, qualitative data were collected, with all remaining informants giving informed consent to an in-depth interview. Applying an embedded design (Plano Clark and Creswell 2008), the primary data source of the current study is the qualitative data collected 11 years after inclusion, utilising quantitative data on selected variables at T1, T2 and T3 as a secondary source to describe individual changes during the study period.

The planning of the current study, the development of the interview guide and the data collection were accomplished by two experienced researchers (authors). The project was approved by the Ethics Committee at Lund University, Sweden.

Study sample

Starting with a quantitative approach to sampling, at baseline (T1) the study district had 49,458 inhabitants; 7% were 75–84 years old. A random sampling procedure using the Swedish national population register generated a sample of 198 possible participants born 1910–1919, living in ordinary housing. Among these, 133 (68%) agreed to participate (Iwarsson et al. 1998). For T2, out of the 89 informants who could be reached, 72 (81%) participated (Iwarsson 2005). After another 4 years, the same procedure left us with 32 participants (T3). Details on the sampling procedure and dropouts have been published elsewhere (Iwarsson 2005; Iwarsson et al. 1998; Werngren-Elgström et al. 2008).

At the end of the T3 home visit, all participants were asked whether they would agree to participate in a qualitative in-depth interview within 8–12 months. Seventeen of them responded positively, while one of them was considered to be too demented to be able to participate and another two had to be excluded due to aphasia. Subsequently, interviews were conducted with 14 informants, but because of logistical and technical problems, one of the interviews could not be included in the analysis. Thus, our final sample comprised 13 very old informants (six men; seven women; mean age 90.5) with diversity in type of housing, years of residency, relocation, cohabitation or not, etc. (see Table 1 for further characteristics). Eight of them lived in small villages; four lived in the only town of the municipality, and one informant lived in a remote rural area.

Few differences between the in-depth interview sample and the remaining participants of the longitudinal project ($n = 19$) were found, but at T1 our interviewees lived in one-family houses to a larger extent ($P = 0.003$) than the remaining participants. Between T1 and T3, four interviewees and two remaining participants from the longitudinal project had relocated to sheltered housing. At T1 and T2, there were no differences in ADL dependence, while at T3 there was a larger proportion of informants dependent in two to five ADLs in the interview sample ($P = 0.029$).

Data collection procedures

At T1–T3, home visits were accomplished by one of two experienced occupational therapists (second author or a project assistant) collecting descriptive data, information on functional limitation, use of mobility devices, housing adaptations, environmental barriers in the home and its close surroundings, housing accessibility, and ADL dependence (Iwarsson 2005; Iwarsson et al. 1998; Werngren-Elgström et al. 2008). In order to conduct the qualitative data collection for the current study, the two authors split the target sample between them by geographic areas, and then phoned the informants to make appointments. The interviews were based on an interview schedule (described below), and were held on home visits lasting approx. 1 h each. All interviews were taped and thereafter transcribed verbatim by a professional transcriber. Apart from the interview, the researchers made field notes, briefly documenting their overall impression of the informants and their housing situation, and of the interview situation as a whole.

Interview schedule

Based on experiences from previous research on home and health in very old age (Haak et al. 2007; Iwarsson et al. 2007) and on literature reviews (Dahlin Ivanoff et al. 2006), the authors developed a thematic interview guide. The overarching theme was "Does it matter to health and quality of life how you live in old age?" A subset of themes was developed as guidance, while the intention was to accomplish the interview in an open manner, striving for a situation as close to an informal talk as possible. The themes were:

- The home and the physical housing environment as related to health and quality of life.
- Relocation and housing options in very old age.
- Assistance and dependence on others.

Table 1 Informant characteristics on marital status and housing, T1–T3 ($N = 13$)

Informant	Sex	At T1 (baseline)					Relocation		At the time of the interview	
		Age	Marital status	Children	Type of house	No. of years in present dwelling	Between T1 and T2	Between T2 and T3	Co-habiting	Applying for relocation
1	Male	84	Married	Yes	One-family	46	No	Yes, to sheltered housing	No	Yes
2	Male	75	Married	Yes	One-family	21	No	No	Yes	No
3	Female	83	Single	Yes	Multi-family	29	No	Yes, to sheltered housing	No	No
4	Female	81	Married	Yes	One-family	–	No	No	No	Yes
5	Male	75	Married	Yes	One-family	46	No	No	Yes	No
6	Female	79	Married	Yes	One-family	12	No	No	Yes	No
7	Female	76	Married	Yes	One-family	44	No	No	No	No
8	Female	78	Single	Yes	Multi-family	3	No	No	No	No
9	Female	79	Single	Yes	One-family	38	Yes, within ordinary housing	No	No	No
10	Female	83	Single	Yes	One-family	50	No	Yes, to sheltered housing	No	No
11	Male	80	Married	Yes	One-family	25	No	No	No	No
12	Male	81	Single	No	One-family	5	Yes, to sheltered housing	No	No	No
13	Male	78	Married	Yes	One-family	47	No	No	No	No

Also, the informant was encouraged to reflect on how his/her home and health situation had changed over the latest decade as well as on anticipated changes in the future. The researchers strove to get as deep as possible into communication, elucidating the informant's personal considerations about advantages and disadvantages related to these themes. While utilising the potential of the entire data material and preserving openness to transactions among the themes discussed, for the current study we focused on information in the interview data related to our specific study aim.

Data analysis

Taking advantage of the fact that we had access to survey data as well as qualitative data from an 11-year longitudinal project, in order to answer our research question the data analysis utilised the embedded design, applying sequential data analysis (Plano Clark and Creswell 2008). The purpose of the sequential mixed-methods analysis applied was to use the information from the analysis of the quantitative database to inform the qualitative findings. Each informant was described according to a set of variables concerning housing and health over 10 years (T1–T3) (Table 2), and the results of this part of the analysis were used as an introduction to the "Findings" section. The qualitative data analysis started when all the interviews had been finalised. As the first step, the two authors independently read the field notes and transcripts and listened to the tapes of their respective interviews, doing line-by-line coding (Kvale 1996). Thereafter, they individually began to categorise their results, and then examined each other's coding and emerging categories. Gradually, by going back and forth between the raw data, their first coding and the emerging categories, the analysis developed (Kvale 1996). During this iterative process, they also used each others' transcripts. In the later stages of this process, topical quotes were identified and added to the text. When no further information was gained from this back and forth process, and in order to optimise validity and trustworthiness, a third researcher with expertise in qualitative research was engaged. She read through a preliminary version of the findings and commented on aspects she considered needed further optimisation. After thorough discussion between the first author and the third researcher, the categories building up the findings were finally

Table 2 Informant characteristics on health and housing T1–T3 ($N = 13$), according to type of housing at the time of the qualitative interview; ordinary housing ($n = 9$) and sheltered housing ($n = 4$)

Characteristic	T1 Ordinary/sheltered housing	T2 Ordinary/sheltered housing	T3 Ordinary/sheltered housing
ADL-dependence[a], Md (Q3–Q1)	2.0 (1.5)/0.5 (1.0)	1.0 (1.5)/1.0 (2.75)	2.0 (3.75)/3.0(0.75)
Dependent in I-ADL only (*n*)	7/2	7/2	7/4
Cooking	2/0	1/1	3/1
Transportation	6/2	4/2	4/4
Shopping	3/0	2/0	4/2
Cleaning	4/0	5/2	4/4
Dependent in P- and I-ADL (*n*)	0/0	1/0	2/0
No. of symptoms[b], Md (Q3–Q1)	5.0 (6.5)/3.5 (6.5)	8.0 (7.5)/4.5 (5.5)	4.0 (6.0)/4.5 (2.75)
No. of functional limitations[c] Md (Q3–Q1)	2.0 (2.0)/0.5 (1.75)	1.0 (1.5)/1.5 (1.75)	2.0 (4.0)/4.5 (3.25)
Use of mobility device/s (*n*)	0/1	4/2	3/2
Subjective well-being[b], Md (Q3–Q1)	115.0 (28.0)/110.5 (7.75)	113 (28.75)/106.0 (21.0)	110.5 (25.75)/101.0 (21.25)
Health	6.0 (2.5)/7.0 (0.75)	6.0 (1.0)/5.50 (1.0)	6.0 (3.5)/5.0 (1.5)
Housing satisfaction	6.0 (2.0)/7.0 (0.0)	7.0 (0.5)/6.0 (0.75)	7.0 (0.0)/6.5 (1.0)
Accessibility score[c], Md (Q3–Q1)	20.0 (52.5)/26.0 (121.75)	29.0 (90.0)/59.0 (90.5)	36.0 (212.75)/127.5 (290.25)
Housing adaptation (*n*)	1/0	2/0	5/0

[a] The ADL-Staircase (Sonn and Hulter-Åsberg 1991). Higher value means more dependent (max = 9)

[b] The Göteborg Quality of Life instrument (Tibblin et al. 1990). Higher value indicates higher well-being (max = 119), no. of symptoms, 0–30

[c] The Housing Enabler (Iwarsson and Slaug 2001). Higher scores means more accessibility problems, no. of functional limitations, 0–13

established and fine-tuned. Based on Onwuegbuzie and Johnson's (2008) recommendations, during the latter stages of the analysis process quantitative data were integrated with the emerging findings. That is, the descriptive, quantitative data were interwoven with the qualitative findings into a coherent body of text (main part of the "Findings"), elucidating differences and similarities concerning housing, health and relocation in the sample.

Findings

All informants lived in a community characterised as rural and stated that they felt that living in a small community, knowing the neighbours and living close to nature were important for their quality of life. Overall, their subjective well-being was high and stable over the 10-year period studied (T1–T3). Five informants had relocated during this period; one of them still lived in ordinary housing, while four lived in sheltered housing at T3 (Table 1). At the time of the qualitative interview, one informant had applied for sheltered housing and another had applied for relocation to another type of sheltered housing unit. Among those who had relocated to sheltered housing or decided to do so, all but one had made an active decision of their own. The two informants waiting for relocation were both in a poor state of health. At the time of the qualitative interview, one of them (a woman; ordinary housing) showed signs of early dementia and a son present stated that her situation was intolerable, while the other (a man; sheltered housing) was in a bad physical shape, with severe incontinence problems and tremor. The nine informants in ordinary housing had lived in their present home for a very long time (M = 39 years). Two of them lived in apartments and seven in privately owned small houses (Table 1). Several informants had built their houses themselves, and they had continually repaired, maintained and made physical environment alterations, and to some extent were still doing so. Thus, their life stories were closely related to their homes, with home improvements and/or changes remembered as landmarks in their life course. Over time, the increasing magnitude of accessibility problems had led to alterations in some of the homes visited, and an increasing proportion of housing adaptations (Table 2).

When it comes to aspects of health, the numbers of self-reported symptoms in individuals were stable over time. Compared to T1, after 6 years, the number of informants that used mobility devices had increased from one to five, and after another 4 years (T3), the number of functional limitations had increased for those living in sheltered housing. About three quarters of the informants were dependent only in instrumental ADL during the T1–T3 period, most of them in transportation. Compared to the situation at T1, after 6 years, more informants were dependent in cleaning, and after another 4 years, more were dependent in cooking and shopping.

The data revealed that the informants considered relocation during a long period during the ageing process, in particular since nine of them still lived in ordinary housing while all 13 had considerations related to relocation. That is, they all had much to tell about the issue of relocation, even if it was not part of their personal experience. Thus, "Negotiating and effectuating relocation is a long process" emerged as the core theme, describing different aspects perceived as crucial when reasoning about relocation, in particular when it comes to moving into sheltered housing. The core theme indicates the character of a process consisting of five phases, constituting the main categories of our findings. Although not linear and not defined in units of time, the data revealed that the phases were sequentially ordered. "Considering relocation: or not thinking about it at all" revealed different ways to approach the issue of relocation, followed by a phase characterised by "Turning points triggering relocation". This phase comprised two sub-categories based on health and independence considerations. To some extent, information from all 13 informants contributed to the two categories just outlined, while only those who had personal experiences of the remaining phases of the emerging process contributed to their content. The third main category, "A decision set in stone, but questioned by the authorities", revealed experiences and feelings arising when the relocation process was put on hold, followed or paralleled by a phase (main category) labelled "Doubts and expectations about the new home". Finally, "Effectuated relocation causes mixed feelings" illustrates the situation after relocation.

Negotiating and effectuating relocation is a long process

The core theme revealed different perspectives on perceptions of housing and health in relation to relocation, to a large extent related to whether or not, and to where, the individual had moved. Depending on the informants' present living situations, past experiences and future expectations of home, they used and developed different strategies to adapt to declining health, revealing a variety of approaches to relocation. Despite this diversity, the data revealed the process character of negotiation and reasoning about relocation. For most of the informants this process went on for a long time, being more or less present in everyday life before it was verbalised, the final decision made, and relocation effectuated. Regardless of the specific individual experience and situation, the process is a discussion of pros and cons of relocation, combined with different actions and measures taken to remain at home. Even an involuntary move had been preceded by a long period of reflections on relocation. Cohabiting informants said that they sometimes discussed relocation and that they wished to live together at home as long as possible. Those who had children discussed relocation with them, and a decision on relocation was made together with the family. The children often took care of necessary formal contacts and gave support in finding a new apartment or filling out the application forms for a sheltered housing placement. Those without children often made the decision based on discussion with a social services official or a district nurse. In contrast to such decisions of a voluntary nature, the data revealed that in the case of sudden, acute illness the decision was made by others. The data also revealed that, even if the relocation was voluntary, it was not possible for the individual to be in full control of the effectuation. As regards, the formal needs assessment procedures necessary for relocation to sheltered housing, the lack of control was prominent. Effectuating relocation appeared as ambiguous and caused mixed feelings of loss and sorrow, in relation to voluntary as well as involuntary relocation. Still, in hindsight those who had relocated to sheltered housing reported increased social activity and a sense of increased quality of life.

Considering relocation: or not thinking about it at all

Most informants were not thinking of relocation at the time when the in-depth interview took place, and most of them expressed a strong attachment to their current home and the place where they lived. Still, it was obvious that the issue of relocation occupied their minds during periods of time, but it was approached in different ways by different informants. Some informants discussed relocation in terms of advantages as well as disadvantages, while others preferred not to discuss the issue of relocation at all. One common argument against relocation was that they already lived in a home that was the best possible. Thus, irrespective of health status, they saw no advantages in moving. Among those who had lived for a long time in their present home, it was common to think that relocation would mean an unwelcome change of daily routines. Their routines were manifest, and even if they had become more dependent in ADL they had compensated for this over time, and based on reduced adaptation capacity due to ageing, it would be very difficult to move. The informants expressed different reasons for not discussing relocation. For example, one 92-year-old fit man who had lived in his house for 50 years said that it was no use to discuss relocation at all, as life was coming to an end anyway:

> I do not believe that it is a good idea to engage in relocation now…I suppose that I do not have so many years left.

Other informants wanted to live 1 day at time and focus on life here and now, and did not want to worry about relocation for the time being. As related by one 83-year-old

woman living alone and with increasing functional limitations, several fall accidents and increased ADL dependence during the previous 5 years:

> I have not thought about it…I cannot stay here much longer, because I am so old. That's what I have been saying, and it will be settled in some way. I have been reasoning like this…I take one day at a time.

One 94-year-old woman, who had experienced an involuntary move to sheltered housing after acute illness, said that she had been thinking of relocation some years before but done nothing about it:

> Actually, I had thought about it. Some years ago I told my daughter, and another time I said, 'We could get rid of the house', I said. 'I see, she said, what's going to become of you then?' We didn't think of sheltered housing at all or…I could have thought about it and could have applied in town…then I would have had time…

Two informants, who had reported major health declines between T2 and T3 and did not manage well at home, anticipated that relocation to sheltered housing would have a positive impact on their health and activity, and benefit them in terms of a reduced sense of isolation, loneliness and anxiety. A great advantage would be that help would be available when they needed it. The four informants who had relocated to sheltered housing facilities envisaged that another relocation would be of great disadvantage; they would lose nearly all their present social relations.

Turning points triggering relocation

Among the informants who had not relocated, issues of health as related to dependence and amount of help needed triggered further reflections and discussions on housing and health, and led to more concrete thoughts about relocation. The informants described turning points from which it might not be possible to remain at home anymore and where relocation simply had to be seriously considered. A situation resulting in an increased burden on their children and increased anxiety that something negative and worrisome would happen appeared as a trigger for relocation to sheltered housing, described as a turning point for some informants. Although the perceptions about whether or when this kind of situation might occur varied, at such a turning point the issue of relocation would be approached by balancing different aspects against each other. Two subcategories, both characterised by active balancing related to independence in everyday activities, represent the journey towards potential turning points.

Balancing independence and dependence is a strategy related to relocation decisions

The infirmities of old age were familiar to the informants; some of them had chronic conditions such as Parkinson's disease, pain, cataracts, etc. All informants consciously strove for independence and keeping up everyday activities in order to maintain health. As health declined activities might be given up, but it was most common to use various adaptation strategies. One strategy was to try to simplify the way an activity was performed, and couples often started to assist each other so that the healthiest person performed the most burdensome activities. One example was given by a man living in sheltered housing who had experienced physical health decline and poorer vision during recent years. He went for a walk every day and read the newspaper together with a close female friend who had declining cognitive functions, but she was able to read and had good physical fitness.

For four men who perceived themselves as healthy, remaining independent in their private houses as long as possible was very important. They had taken preventive measures to make their houses/flats more accessible and easier to maintain in terms of heating, gardening, etc. Several informants had moved within ordinary housing in order to prolong their independence; one woman had moved from a house with a large garden into a more easily maintained terraced house, and three others said that they had already moved to more easily maintained housing earlier in life.

Benchmarking with others, i.e. comparing with others of the same age in similar situations, was a frequently used strategy among those living in ordinary housing. Outcomes of such benchmarking meant that relocation did not have to be considered as long as their situation did not become as bad as that of other persons of their age they knew of. Those informants took pride in the fact that, in spite of poor health, they managed parts of everyday life independently and that they still participated in social activities. When their adaptation strategies no longer worked and the everyday activities became too much of a strain or impossible to perform, the need for help became indisputable and the thoughts of relocation started to linger.

For those who had relocated to sheltered housing, the new situation meant on the one hand that they had to accept being more dependent than they had wished, but on the other hand it meant that they had become more independent in some respects, e.g. in going outdoors and in social activities. Over time, these informants had become increasingly dependent on mobility devices, and the relocation had meant less accessibility problems than in the former dwelling.

Some informants who perceived their health as good and still were living in their own home discussed the potential situation of experiencing an involuntary move and envisaged that, whether they wanted to or not, they could be forced to move if their health and independence declined. Others felt very strongly that relocation could only be considered under specific conditions, i.e. when their health had become so poor that they would be dependent on help with almost everything. One very fit and active man who cycled every day to visit his spouse, who lived in sheltered housing, expressed it like this:

> If I am to move it has to be when I cannot stand on my legs anymore…then it's not possible to stay put…that is the way it is.

In other words, the type of balancing act described to great extent concerned independence and dependence in everyday activities, striving to avoid the turning point of facing a situation with an unacceptable level of dependence, while this level was defined in different ways by the informants.

Needing help and not being a burden is a delicate act of balance related to relocation

The informants stated that, due to declining health, besides the increased need for practical help they also needed more emotional support. No matter what kind of help, it was their children or a significant other that they first turned to. For those in ordinary housing, a common standpoint was that when the need for help became too great, they did not want to burden their children, and therefore engaged hired helpers for some of the practical tasks. Still, children were often engaged in cleaning, shopping, laundry, etc. over long periods of time, and some informants had neighbours who sometimes helped them with gardening or shopping.

Informants living in ordinary housing, with declining health and increasing ADL dependence, said that without help from their children and grandchildren it would not have been possible to stay put. This support and help was crucial, and they often had daily contact with their family members. Some informants revealed that they were very concerned about not burdening their children "too much", and therefore they did not always ask for all the help and support they really needed, although they could feel insecure when the children were not around. Some of them avoided worrying their children unnecessarily, as expressed by one woman with severe functional limitations, living isolated in the countryside:

> …my youngest son, yes he is the youngest, he is 60 years old, but he is nervous so I can't call him in the evenings. I can't call him in the evenings, because he becomes so nervous that he can't sleep.

Informants with several children often had a stronger bonding to one of them, i.e. the child who provided the most help and support, and said that they would not manage without that particular daughter or son. The advice and judgements of this child were very influential when balancing between need for help and not being a burden. For one informant, acute illness caused such an extent of dependence on help from others that her close child decided that the turning point was reached and that relocation to sheltered housing was necessary. In other words, her move was involuntary but still considered during a long period of time before it occurred in an unexpected way. Summing up on this sub-category, "Needing help and not being a burden is a delicate balancing act", closely related to decisions on relocation.

A decision set in stone by the individual, but questioned by the authorities

Most commonly and strikingly, the decision to relocate had not directly led to the preferred change of housing situation. First, an application for a dwelling in a sheltered housing unit had to be submitted and this would then be needs-assessed by the authorities. Among the informants who had relocated or were applying for relocation to sheltered housing, different but most often negative and frustrating experiences of this phase of the relocation process were related. While waiting several years to move into sheltered housing, one woman had experienced a large increase in functional limitations and ADL dependence, and she expressed frustration and resignation:

> I try to be patient; you can't force yourself on them…I'm not the only one who needs it". "I don't know how it will be…I am patient, you can't force your way, I'm not the only one who has needs."

One informant had been considered to be "too healthy" and still lived in her own home, and another, who at the time of the application had experienced increased ADL dependence and lived isolated far out in the countryside, had to get a court order to be granted a placement:

> Oh, there were a lot of written statements to make and my daughter had to file a complaint to the administrative court of appeal…The authorities don't care…It has been a struggle to get a placement in sheltered housing.

The data also revealed that, even if a placement in sheltered housing was granted and the person had adapted

to the new home, the placement could never be taken for granted. Even after living for some years in sheltered housing, the authorities could still question the right to live there. The 93-year-old woman who relocated involuntary to sheltered housing between T2 and T3 had since then improved in health status, and was now judged to be too healthy by a social services official, who had requested the informant to relocate back to ordinary housing, but she refused.

Doubts and expectations about the new home

Those who had made an active, voluntary decision to relocate stressed that the decision process had been long and that they had thoroughly contemplated the issue. Once the decision to relocate to sheltered housing was taken, the future move was generally perceived as a positive step that would enhance well-being. However, while waiting for the formal decision, the reasoning continued and both doubts and expectations about the new home were expressed. The planned relocation generated many reflections on how the move would affect personal routines and habits when more help would be provided. As stated by a 95-year-old man who was waiting for his relocation to another type of sheltered housing:

> I wonder if I can get the sandwiches that I want in the mornings?…This is important to me but I try to avoid brooding too much on it.

Some informants said that they would like to participate in the activities provided in the sheltered housing facility, e.g. social and religious activities. One woman who had experienced declined health, increased ADL dependence and accessibility problems over the previous 5 years had become more and more isolated during this time. She said that after the move to sheltered housing, she would want to meet and talk with people, and make new friends:

> I will start to make friends when I get there; I establish contacts with others easily. I'm prepared for the fact that some people will be ill…but it would be nice if there could be some men!

Effectuated relocation causes mixed feelings

Relocation meant dividing up personal belongings and moving from a larger to a smaller dwelling. Most often the practicalities related to moving out and in were handled by children or other significant persons. Some informants had taken an active part in deciding what they should bring, e.g. important memorabilia and furniture. Other informants quite deliberately handed over the responsibilities for selling their house or flat to their children, and for sorting out and handling remaining furniture and artefacts. This was described as a positive—or at least necessary—way to handle this strenuous and often stressful phase of the relocation process. In contrast, the informant who had moved into sheltered housing involuntarily had a somewhat negative experience of a situation where her children had effectuated the move and sorted some of her belongings without her consent. Even if the relocation had been voluntary, with active participation in deciding what to bring to the new home, one woman said that she still thought about it:

> Of course do I miss some of the things I had, and everything was scattered and divided up. They [the children] could take what they wanted. I didn't want anymore of it…Many times you ask yourself where did it go, where did it go?

The informants who had moved into sheltered housing stressed that their decision was well considered, and that they were not likely to change their mind. Still, several of them displayed mixed feelings, also about relocations they had made long ago. Even after 20 years, relocation from a beloved home could be relived and perceived as painful and upsetting. However, all those who had relocated to sheltered housing during the study period thought that they had moved to a nice environment, they got on well there. They perceived it as a relief to live in a place where help was readily at hand, as they now got help with the activities they perceived as too much of a strain or too difficult to perform. The relocation had a positive impact on their health, and they mentioned, e.g. advantages of being able to go outdoors independently when they wanted. Overall, the relocation had also led to a richer social life, and overall their quality of life had improved because of the move; they felt "alive again". Still, some dissatisfaction with the scant social interaction among the inhabitants of the sheltered housing unit was expressed, leading to the perception that time sometimes passed slowly. A statement uttered by one woman revealed that relocation due to poor health and dependence also included aspects of resignation:

> Moving to the retirement home is the only comfort we 'oldies' have.

Discussion

This study contributes to our understanding of home and health dynamics during the ageing process, with specific attention to relocation. While the findings should be interpreted in the national context of Sweden, based on an unusually long study period and applying a mixed-methods approach, our study serves as a complement to the existing knowledge on relocation in old and very old age.

Issues of dependence in everyday activities seem to be crucial for decisions on relocation, primarily to sheltered housing. The findings indicate the process character of relocation in old age, starting long before the actual move takes place, and it is characterised by balancing independence and dependence in everyday life, benchmarking with others, negotiating with oneself and children, frustration generated by the encounter with the authorities once the personal decision to relocate has been taken, and doubts and expectations about the new home. It should be borne in mind that we do not claim that our findings are representative of a universal process of relocation; the sample was small and represented those survivors willing to participate in repeated data collection waves over 11 years, i.e. the sample was highly selected. Even though we identified phases of a process that we consider transferable to similar situations, based on a small sample the findings nevertheless reveal marked diversity. Most important, the process we traced appears to be present whether the move was voluntary or involuntary. We are confident that the findings and conclusions are credible and transferable (Lincoln and Guba 1985) to the situation of very old people in a general sense, while further studies are needed to confirm the results.

One testimony to the validity of our findings is that health decline appeared as a major indicator for relocation to sheltered housing in old age, as demonstrated by others (Castle 2001; Cheek et al. 2006; Larsson et al. 2006; Svidén et al. 2002; Thomése and Broese van Groenou 2006). Further, our findings confirm that relocation is closely related to perceptions of home and health (Fänge and Dahlin Ivanoff 2009), and shed light on how very old people themselves reason about these issues. When health decline becomes manifested in dependence in everyday activities, the use of compensation strategies and balancing need for help from others and being a burden on children against the pros and cons of relocation seems to be important. Relating the findings to Baltes and Smith's (1999) concept of selection, optimisation and compensation (SOC), our findings reveal that very old people's adaptive behaviour in relation to housing and health is integrated into their daily life over a long period of time. With decreasing health, they focus their resources on selecting activities they want to remain independent in, change the way they perform these activities, and adapt the physical environment. Linking our findings to Lawton and Nahemow's (1973) ecological model, our study shows that very old people balance higher environmental press and decreasing competencies by adaptation of activity performance. Some individuals consciously aim at decreasing environmental press by changes in their physical home environment to stay as independent as possible, for as long as possible. Very old people seem to be aware of the environmental press of their home environment in relation to health, and decisions on relocation can be seen as actions to change the environment to accommodate to health changes that cannot be overcome in the present home (Chen and Wilmoth 2004; Reed et al. 2003). Positive effects among older people relocating to sheltered housing have been demonstrated by others as well (Chen and Wilmoth 2004; Svidén et al. 2002), while the current study adds to our knowledge of the role of home and health dynamics. In a previous study based on quantitative data from the current project, housing accessibility was shown to be related to ADL dependence (Iwarsson 2005), while the current study gives an in-depth picture of how very old people reason about these relationships.

Turning to different types of relocation, voluntary and involuntary relocation have different characteristics. As suggested by our findings, voluntary moves are often characterised by changes in personal as well as environmental factors, while involuntary moves often occur because of negative changes in personal factors, most often in terms of health decline (Oswald and Rowles 2007). According to our findings, some time after the move the experiences of relocation to sheltered housing, be it voluntary or involuntary, are mostly positive. This is in congruence with earlier research, indicating that older people's satisfaction with relocation to sheltered housing seems to be related to participation in the decision (Andersson et al. 2007; Rossen and Knafl 2003). In contrast, involuntary relocation is known to be something that older people fear (Rossen and Knafl 2003) causing feelings of stress and sadness. Still, the woman in our sample experiencing such a situation was satisfied, at least in retrospect. In fact, she did not want to move back to ordinary housing when urged to do so. This is an example of the complex dynamics of home and health as related to relocation during the ageing process, demonstrating the insights that can be gained by longitudinal in-depth studies.

Our positive findings concerning relocation could be related to the fact that the informants lived in a rural area. The most common I-ADL dependence was transportation, and feelings of isolation were common, while sheltered housing seems to facilitate social activities. The rural neighbourhood also probably influenced our informants' reasoning and negotiation on relocation, as they had advance knowledge about the sheltered housing facility in their closest village and knew that they most probably would meet old acquaintances again. Certainly, the conditions for ageing and relocation differ between rural and urban environments, although they are insufficiently studied (Phillipson and Scharf 2005). Still, major facets of the current findings are congruent with those of a study on very old people living in urban districts in Sweden (Fänge and Dahlin Ivanoff 2009; Haak et al. 2007). Our findings also

reveal that downward comparisons using benchmarking were used to keep up self-esteem and cope with declining health and increased dependence. Different types of comparisons are common throughout life and related to degree of self-esteem. Such cognitive strategies are used to overcome feelings of inferiority and to reduce low self-esteem, but downward comparisons increase with age (Ferring and Horstmann 2007). According to Frieswijk et al. (2004), only those frail older people who have low self-esteem use downward comparisons to enhance life satisfaction. They also found that upward comparison is the most common strategy, but this finding is contradictory to the findings of our study. The participants in our study rated their well-being as very high and therefore the need for identification with healthier persons in order to achieve higher life satisfaction was not necessary.

Even if it might be argued that the issue of negotiation is not obvious in the separate quotations and the text under each of the main categories presented, during the analysis the process of strategic exchange characterising negotiation emerged very clearly on an overarching level, subsequently forming the core theme. We also claim that the main categories represent a process perspective on relocation, but it should be kept in mind that the process varies among individuals (Oswald and Rowles 2007), and our informants represent such diversity. Still, the findings of this study indicate that older people's reasoning about relocation has much in common, and based on our limited sample it even seems as if the process of relocation identified is applicable to voluntary as well as involuntary moves. A noteworthy aspect of our findings is that only five persons had experienced relocation in old age, while all 13 had much to tell about the process going on, in their minds and/or in communication with others. According to a recent literature review on relocation to sheltered housing, or assisted living in US terminology, the literature is not consistent and demonstrates negative as well as positive effects (Kane et al. 2007). As demonstrated by our findings, it is necessary to be aware of the heterogeneity among older people and the complexity of their needs and expectations.

Turning to methodological issues, mixed-methods approaches are valuable (Allardt 1990) but pose challenges and often result in academic debate. There is no golden standard and the approaches and methodologies vary between disciplines (Plano Clark and Creswell 2008). As yet, not much rigorous methodological guidance is available, but we do argue that methodological unorthodoxy has a potential to lead to interesting and valid results. For example, since quantitative and qualitative methodologies traditionally require quite different sampling strategies, the way to deal with sampling is not straightforward. Eleven years prior to the final data collection for the current study, our informants were sampled using a quantitative, random approach, and they thus represented the "surviving elite" of the original sample. This is in contrast to qualitative sampling techniques such as, e.g. maximum variation or theory-based sampling (Plano Clark and Creswell 2008). Still, when reviewing the informant characteristics (Tables 1, 2), it is obvious that our informants represented diversity in crucial respects. As to the quantitative data used, their capacity to describe the sample and the development of certain characteristics over time is of course very limited. For example, the decrease of symptoms among those living in ordinary housing between T2 and T3 (Table 2) is in contrast to what could be expected in this age span. Still, taking into account the fact that three out of 13 persons moved into sheltered housing during this period, the remaining sub-sample (ordinary housing) was so small that individual scores had a large impact on the median and quartile range presented. When it comes to the analytical approach, we adopted a pragmatic approach to qualitative analysis, while following basic, well-established principles (Kvale 1996). For the mixed-methods approach, we followed recent recommendations to first analyse the two data sets independently (Onwuegbuzie and Johnson 2008), followed by integration to arrive at a coherent body of text. Our major contribution compared to previous research, based solely on quantitative survey data, is the insight into how very old people reason and negotiate about relocation, qualitative data which are related here to quantitative data on home and health.

Summing up, negotiating and effectuating relocation in old and very old age is a non-linear process lasting for years, and the current study lends support to describe it in different phases. The results of this study can be used to develop positive, proactive strategies for improved housing provision for senior citizens, giving advice to older people and their families as well as to the authorities. Much earlier investments in health promotion directed at conscious planning of housing for the latter part of life are imperative. In other words, people aspiring to stay in ordinary housing until advanced age should be encouraged to make informed choices on housing issues already in middle adulthood, e.g. in terms of removal of environmental barriers when renovating their home. Another recommendation to older people is to open up the discussion on relocation much earlier in the process, with their children as well as with social and health services staff and authorities. At least in Sweden, more awareness of the fact that the authorities will use considerable time for needs assessment and decision-making would presumably make the transition easier. The authorities could gain insights from our study to increase their awareness that, for very old people, relocation to sheltered housing is a significant decision; their life stories are closely related to their homes and active judgements

and choices about living environments are crucial, but not easily dealt with.

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