Innovative housing concepts for the elderly:

An investigation into the impact of co-housing on well-being

Abstract

Although the population is growing, the number of households is growing even faster. This means that significantly more housing is needed. Many elderly people still live in the house where they also raised their children, this creates tension in the housing market: actually they occupy a house where a family with young children could live. At the same time, we also see an increase in loneliness and higher care costs for the elderly. Collective or shared housing, such as co-housing, is seen as an effective solution to a number of problems: it lowers care costs, reduces loneliness among the elderly, and promotes circulation in the housing market. Therefore, the question arises as to how co-housing affects the well-being of the elderly. Through semi-structured interviews with seven respondents, including residents of co-housing communities and real estate professionals, this is answered. The study shows that co-housing design, community facilities, full resident management, and a non-hierarchical structure provide social interaction, meeting, and community spirit, which contribute to the well-being of the elderly.

COLOFON

Title	Innovative housing concepts for the elderly: An investigation into the impact of co-housing on well-being
Version	Final version
Author	Fleur Holtkamp (S3801845)
Supervisor	dr. V.A. (Viktor) Venhorst
Assessor	S. (Sander) van Lanen
E-mail	f.holtkamp.1@student.rug.nl
Date	26-6-2024
Word count	10971

Preface

This master's thesis, entitled *"Innovative housing concepts for the elderly: An investigation into the impact of co-housing on well-being,"* marks the culmination of my master's in Real Estate Studies at the University of Groningen. This research investigated the impact of community housing, such as co-housing, on the well-being of the elderly. To achieve this, seven interviews were conducted with representatives from the Province of Overijssel, a housing corporation, a developer, an architect, Denktank 60+ Noord, an individual who had considered co-housing but ended up living somewhere else, and finally, a founder and resident of co-housing.

I found writing my master's thesis to be a fun but also somewhat stressful experience. During the writing of this thesis, I extensively studied scientific literature. The topic deeply interested me, which made me eager to gain more knowledge and continue writing. Because I was very motivated, everything went according to plan.

I could not have completed this master's thesis without the assistance of my supervisor. Therefore, I would like to thank Dr. V.A. (Viktor) Venhorst for his expertise, feedback, and continuous support throughout this research, which significantly contributed to its quality. Additionally, I would like to thank all the individuals I interviewed. Thank you for your time, knowledge, and experience. Your insights have been a crucial contribution to this research. Lastly, my family and friends also deserve my sincere thanks. Thank you for providing the support I needed during moments of stress.

I hope that my thesis contributes to the existing literature, encourages future research, and helps create an even better living environment for the elderly, ultimately improving their well-being.

Fleur Holtkamp

Rijksuniversiteit Groningen, Faculty of Spatial Sciences

26-6-2024

Table of contents

1. Introduction

1.1. Motivation

The aging of the Netherlands has been ongoing for many years. The percentage of elderly people in the population is growing (Kennis, 2022). In ten years, a quarter of the population will be 65 or older (Van Erven Dorens, 2023). This increase is due to people staying healthy longer, resulting in many more over-65s now than, say, 50 years ago. A large proportion of these people are left alone because they are widowed. Although the population is growing, the number of households is increasing even faster, meaning significantly more housing is needed (Baas, 2023). The cabinet hopes to reduce the housing shortage by building one million new homes while WoningbouwersNL argues that two million new homes should be built (Van Erven Dorens, 2023).

Many elderly people still live in the house where they raised their children. This contributes to tension in the housing market, as they occupy houses where families with young children could live (Baas, 2023). According to Baas (2023), the increasing aging population exerts much more pressure on the housing market than factors such as immigration or nitrogen regulations. Research shows that older people want to stay in their current homes for as long as possible because they are attached to their homes and surroundings. They have memories, a social life, and daily routines there (Reep, 2020). Additionally, older people want to live independently for longer, which means adapting existing homes rather than building new ones. With care and support from nearby providers, it is possible for them to continue living in their own homes and neighborhoods for longer. However, for those who do not want this, there are few options available (Reep, 2020).

Minister De Jonge and Minister Conny Helder (Long-term Care) launched the "Housing and Care for the Elderly" program in late 2022. With this program, the cabinet aims to ensure that there are enough homes for the elderly, whether they need care or not (*Gebrek aan voldoende passende woningen voor ouderen*, 2023). Currently, there is a significant shortage of suitable options, especially for seniors. At least 300,000 lifetime homes are currently in short supply (Commissie Toekomst Zorg Thuiswonende Ouderen, 2020; Bastiaans, 2022). In particular, collective or shared housing is seen as a solution for transit, lower care costs, and loneliness (Bastiaans, 2022).

1.2 Academic relevance

Previous research has focused on various aspects of housing for the elderly, including community impact, housing preferences, and overall satisfaction. For example, a study by Reep (2020) examined satisfaction and future expectations regarding the housing preferences of people over fifty-five. The study found that apartments and intermediate housing are two popular types of housing

among this demographic. Although many people are satisfied with their current housing, some are considering moving, especially to housing specifically designed for the elderly (Reep, 2020). Additionally, the survey revealed divided opinions about living in a nursing home and a reluctance to have their children or in-laws move in when losing independence.

Another survey, conducted in The Hague and commissioned by local housing corporations, healthcare institutions, institutional investors, and the municipality, aimed to identify the housing needs of seniors. The findings indicated that seniors in The Hague are generally satisfied with their current housing and have no plans to move (Dijkman, 2017). Research by Ren, Folmer and, Van Der Vlist (2016) on China has shown that home ownership has a positive impact on life happiness, but how great this impact is depends on the income of the group.

Furthermore, Ismail (2021) discusses the importance of community in his research. To age actively and promote life satisfaction, older people need a strong community. Elements to be implemented in their living environment include the design, layout, and styling of senior housing. Ismail's research helps determine the best housing concepts for senior housing that can serve as a reference for developers, policymakers, and designers to create quality housing for the elderly that improves quality of life (Ismail, 2021).

Research by Dijkman (2017) showed that group living is very attractive if seniors can maintain their own freedom. The number of studies on collective co-housing is increasing in Europe. Co-housing initiatives offer an answer to the challenges of living in modern Europe, sometimes pragmatic, sometimes idealistic. Co-housing is an effective strategy for social and environmental sustainability, with an emphasis on urban development. Although co-housing is seen as a solution for engaged citizens and sustainable urban development, there are concerns about its elitist nature and lack of general acceptance (Tummers, 2015). Carrere et al. (2020) examined the available evidence on co-housing from a public health perspective, focusing on the relationship between housing, health, and health inequalities. Co-housing was considered a promising form of communal living because it can help create healthy social networks, communities, and living environments.

Previous studies have focused on life satisfaction and the importance of co-housing, but questions remain about the effect of these co-housing communities on the wellbeing of the elderly. Moreover, studies with methodological approaches that provide evidence on the effect of co-housing on well-being are needed. By filling in these gaps, we may gain a better understanding of the advantages and drawbacks of co-housing, ultimately leading to better policy and design decisions that will benefit the aging population.

1.3 Research problem statement

The aim of this research is to examine how co-housing for the elderly can contribute to their well-being. Therefore, the research question is: *How do community-oriented real estate developments, such as co-housing, affect the well-being of the elderly?* It is essential to investigate this topic to understand how co-housing can directly impact the well-being of the elderly. This research question will be answered through the following sub-questions:

› Sub-question 1: What is co-housing?
› Sub-question 2: What is a pleasant living environment for the elderly?
› Sub-question 3: What is the effect of co-housing on the well-being of the elderly?

Sub-question 1 is important because there is still some ambiguity in the literature about the definition of co-housing. Hence, it is essential to have a clear definition of co-housing to lay the foundation for this research. In addition, sub-question 2 is essential because it provides insight into the unique needs and preferences of the elderly with respect to the environment in which they live. Understanding these needs and preferences is essential to explore the effects of co-housing on the well-being of the elderly in sub-question 3. This helps determine how community-oriented living environments can improve their well-being.

To answer these three questions, it is important to first analyze the literature. I will examine a number of housing models, designs and technologies aimed at improving the living conditions and lifestyle of the elderly. The data in this qualitative study were obtained through interviews and by reviewing additional literature and market reports. The experts interviewed bring their expertise from different perspectives. Qualitative research leads to the discovery of new concepts and theories (Gioia & Pitre, 1990; Gioia et al., 2012). Based on these three sub-questions, we will ultimately answer the research question.

Existing research focuses on the role of community and housing preferences in promoting life happiness and health in the elderly, with a special focus on collective living and the needs of seniors. Unlike these previous studies, however, this research focuses specifically on co-housing and its specific impact on the well-being of the elderly. This research will explore the elements that distinguish these inventive methods and provide deeper insight into how they impact the lives of seniors. This research contributes to existing knowledge by providing new theoretical insights on the definitions and effects of co-housing on the well-being of the elderly.

The rest of this article is organized as follows: chapter two provides an overview of existing theories on the topic. Chapter three describes the data and exploratory analysis, and chapter four

presents the results. Chapter five contains the discussion, and finally, chapter six presents the conclusion.

2. Theory, literature review & hypotheses

This chapter reviews the literature relevant to this study. First, we will discuss the concept of co-housing. Then we will delve into pleasant living environment for the elderly. Next, we will discuss the link between co-housing and well-being. After that we will look at the characteristics of co-housing and finally, we will look at the hypotheses.

2.1 Co-housing

Co-housing, also known as Central Living, is a development in the world of communal living. It involves jointly built and self-managed residential clusters that form an international network of living with shared spaces (Tummers, 2015a). Co-housing differs from traditional apartments or co-ownership by the active interaction and involvement of community residents. These initiatives are led by resident groups working together to create unique living environments that are not easily found in the mainstream housing market (Tummers, 2015a). According to Tummers (2015a), co-housing is diverse and suitable for people of all ages and households. There is also Seniors Co-housing. This is a form of group living for peers over 50 that clusters individual homes around a common house (Brenton, 2013; Angioni & Musso, 2020; LVGO, 2010; Lager, Van Hoven, & Meijering, 2012). The priority of the senior co-housing residents is to age well together (Critchlow Rodman, 2013; Angioni & Musso, 2020).

Co-housing environments use both new construction and existing real estate, and are located in different environments, from urban to rural areas (Tummers, 2015a). It is important to work together during construction and management, with the goal of building a "non-anonymous" neighborhood. Other key elements include affordable housing, energy-efficient buildings, and a reduced carbon footprint. The publications of co-housing networks show that these initiatives are a concrete response to important urban policy goals in European cities (Tummers, 2015a). According to Tummers (2015a), some of these goals include creating social cohesion, providing care for the aging population, preserving local identities during globalization, creating healthy and child-friendly environments, supporting a locally based responsible economy, promoting energy transition, and encouraging involvement in urban development. Therefore, co-housing is much more than just a form of housing; it is a vibrant community that values coexistence and sustainability.

The past decades have shown that the majority of the Danish population has been dissatisfied with the available housing options (Kramp, 2012). Therefore, the co-housing model was developed in Denmark in the early 1970s as an inventive method for collective housing (Carrere et al., 2020).

Compared to the first co-housing for seniors in Denmark in the 1970s (Lietaert, 2011; Carrera et al., 2020; Angioni & Musso, 2020), co-housing for seniors is much more advanced today. Co-housing has also experienced a resurgence in recent years in the United States, Europe, Australia, New Zealand, and Japan. This revival is associated with an increasing need for a sense of belonging, greater community involvement, and a rejection of dominant consumerism. It is also stimulated by poor rental conditions and the lack of affordable housing. Co-housing is seen as a solution to these problems and is considered an alternative to conventional housing (Carrere et al., 2020). Co-housing is thus part of a communal living trend that is becoming increasingly popular among people (Beck, 2019).

Co-housing neighborhoods offer their members a social network while maintaining the privacy and autonomy associated with living in their own individual homes (Kramp, 2012). According to Beck (2019), the physical structure of co-housing consists of multiple individual homes coming together with shared spaces and facilities. The goal of this design is to promote cohabitation and balance commonality and privacy. Co-housing offers the opportunity to combine individual homes with shared facilities, ensuring both privacy and a sense of community. The common house, where residents meet regularly for meals or other activities, is an important part of co-housing. This helps build a close-knit community and strengthens the bonds between residents (Beck, 2019). Furthermore, community bonds are strengthened because each resident has a voice in decision-making. During the residents' meeting, decisions are made by the majority vote of the members present (Kesler, 1991).

At first glance, intergenerational co-housing projects seem very different from each other because there are many different types, sizes, and forms of ownership. In fact, each co-housing project is designed, built, and managed in its own way. The location, establishment methods, group dynamics, values, and visions are all unique. Although co-housing communities differ from one another, they all share these six components: (1) participatory processes, (2) designs that promote community building, (3) comprehensive community amenities, (4) full residential management, (5) non-hierarchical structure, and (6) separate sources of income (Beck, 2019; Durrett, 2009; Kramp, 2012).

2.2 Pleasant living environment for elderly

Now that we have discussed the definition and implications of co-housing, let's focus on what constitutes a pleasant living environment for seniors. Seniors' lives are heavily influenced by their neighborhoods. Seniors are connected to their environment; their lives focus primarily on proximity and neighborhood, so a safe and pleasant living environment is crucial (Teugels, Deruytter, De Donder & Dury, 2015). This also explains why older people are unwilling or unable to move on to other (smaller) homes. There are few suitable homes in areas where the elderly want to stay. Indeed, the elderly prefer to stay in their familiar surroundings because they are less likely to become lonely by using their

social networks (Meijering, 2023). According to Meijering (2023), our living environment is strongly intertwined with who we are as a person. This determines how and where we want to grow old.

"The central place in most people's living environment is their home. Our home should be a place where we feel safe and can be ourselves. 'Home is where the heart is' (Meijering, 2023, p. 7)." The elderly and other groups that have a harder time getting outside spend up to 80% of their time at home (Baltes et al., 1999; Sixsmith et al., 2014; Meijring, 2023). This makes this place even more important than it already was. The dynamics of space have changed with current trends in aging and increasing life expectancy. Private space and public space will increasingly coincide (Doorten & Meurs, 2015). From an architectural perspective, the idea is that spaces between private and public spaces provide people with a safe environment (Doorten & Meurs, 2015). Public space can be seen as a functional hub, but at the same time it should be a pleasant place to stay (Van Soomeren & H.D. Steinmetz, 2017).

Older people are continuing to live independently for longer. While older singles used to often move to assisted living or nursing homes, today they usually continue to live at home (Wansink, 2019; Doorten & Meurs, 2015). A pleasant living environment that invites people to go outside supports this (Doorten & Meurs, 2015). People need to be motivated to want to go outside. This helps older people stay mobile and meet others. The design of public spaces can therefore be seen as a complement to the range of general facilities with which the municipality promotes the independence of its residents. Often small adjustments can do a lot (Doorten & Meurs, 2015). According to Van Soomeren & Steinmetz (2017), clear signage and addressing scary bushes, blind walls, drafty corners, and messy pavement can make walking routes more attractive and safer.

2.3 Co-housing and well-being

Now that we have established what constitutes a pleasant living environment for the elderly, we can examine how co-housing affects their well-being, as this helps determine how a neighborhood-oriented living environment can improve their well-being. Helliwell & Putnam (2004) claim that well-being is a subjective assessment of happiness, life satisfaction, and health. To examine the influence of social context on subjective well-being, the authors use a large sample of data from various studies. They found that social capital, including elements such as family, neighborhood, religious and community ties, supports both physical health and subjective well-being. Helliwell & Putnam (2004) address the various independent channels through which social capital is related to happiness and enjoyment of life, such as marriage and family, ties with friends and neighbors, ties to work, community involvement, trust, and trustworthiness.

Accessibility and the home environment are important for the well-being of older people. This is because they are highly effective in eliciting feelings such as; feeling safe, oriented, independent, and socially included (Taşoz, 2020). There is evidence that, compared to residents living in separate arrangements, communal living arrangements reduce feelings of loneliness in older people and increase their well-being. Therefore, co-housing has a positive impact on residents' quality of life and provides benefits to their physical and mental health (Carrera et al., 2020).

Co-housing increases mutual support and a sense of community among residents of intergenerational housing. By increasing the sense of community beyond the boundaries of co-housing, these feelings can be extended to the neighborhood and improve residents' well-being (Carrera et al., 2020). Moreover, it is possible for the co-housing model to improve housing affordability, which is widely considered beneficial to the well-being of the population (Carrera et al., 2020). Living in a co-housing community provides an environment in which common interests can be shared and activities can be undertaken (Lager et al., 2012).

Additionally, people from the same age group can share past experiences and memories by being together (Smith, 2009; Lager et al., 2012). According to McHugh and Larson-Keagy (2005) and Lager et al. (2012), sharing similar life experiences is beneficial to age-appropriate communities because it gives older people a sense of belonging. Furthermore, according to Lager et al. (2012), the height or width of sidewalks can hinder people's mobility when walking with walkers, scooters, or wheelchairs. This means that the design of the built environment can have a significant impact on people's well-being. Durrett (2009), and Angioni & Musso (2020), state that "senior co-housing revolves around custom-built neighborhoods organized by the seniors themselves in order to fit in with their real needs, wants, and aspirations for health, longevity, and quality of life" (p. 762).

2.4 Characteristics of co-housing

Earlier we talked about the six characteristics of co-housing. Four of these characteristics, I believe, are best associated with co-housing for seniors based on the literature above. First, the design of co-housing for seniors is essential for creating a sense of community. Common spaces and facilities are designed to promote social interaction and help residents build close relationships. Consider a common house, where seniors gather to eat, engage in activities, and enjoy each other's company. In addition, extensive community amenities are crucial for seniors. A community garden, for example, provides not only opportunities for social activities, but also support and shared amenities that make daily life easier.

In addition, I believe seniors gain a greater sense of belonging in the co-housing community through full residential management. A sense of ownership and cooperation is created when residents

13

work together to manage and maintain common areas and amenities. As a result, seniors feel more involved in the community and can participate in activities. In a non-hierarchical structure, all residents have a voice in making decisions. This is of great importance to seniors because it makes them feel that their opinions count and that they are heard and valued within the community. This gives seniors a sense of self-reliance and autonomy, which is essential to their well-being in co-housing communities.

For seniors, these four characteristics are most relevant to co-housing. This is because they specifically focus on creating an environment that promotes social interaction, support, and a sense of community, which is important for seniors' well-being and quality of life. The other two characteristics, participatory processes and separate sources of income, are not included in this study since I believe they have less impact on the well-being and social interactions of seniors living in co-housing.

However, these features of co-housing are not the only important factors affecting seniors' well-being. Personal characteristics also play a large role in how co-housing is perceived by residents. For example, the experience and needs in co-housing can be influenced by age, health, and migration background. Older people may have different cultures, which can create different needs. Although co-housing has a positive impact on residents' well-being, it cannot provide intensive medical care to residents who need it.

To examine whether the independent variables, characteristics of co-housing and the environment, have an effect on the dependent variable, elderly well-being, a conceptual model was created (Figure 1).
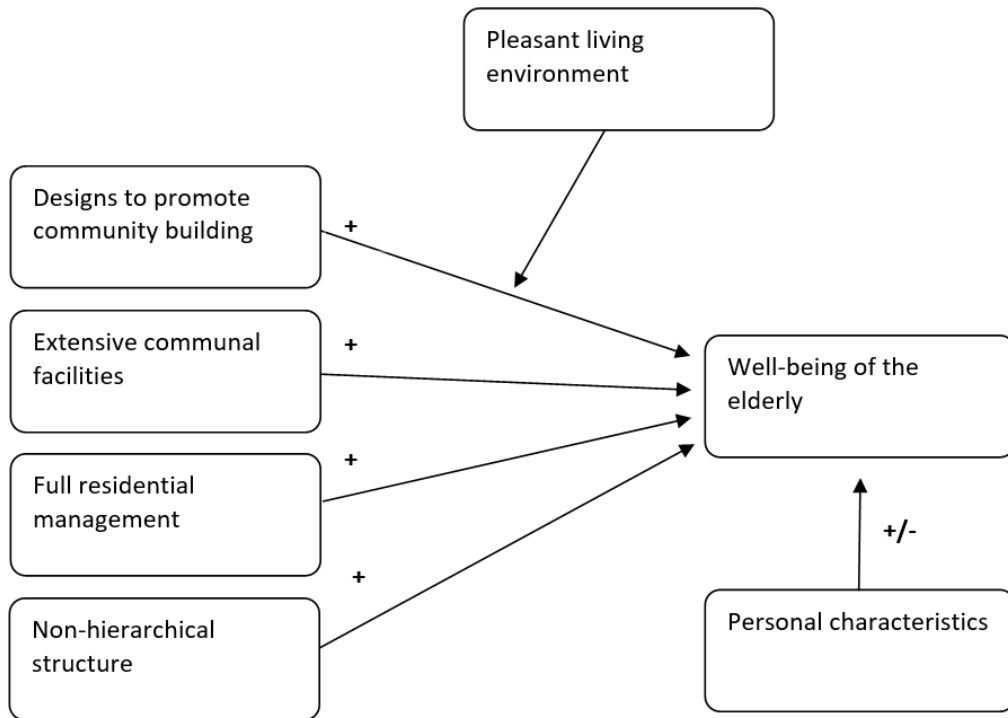
Figure 1. Conceptual model of the influence of co-housing characteristics and a pleasant living environment on elderly well-being.

2.5 Hypotheses

As described in the literature, it is believed that seniors who participate in co-housing will have positive experiences with their well-being. Through the management structure and design of the living environment, seniors in co-housing gain a greater sense of community, which contributes to their well-being. Interviews will likely show that common spaces, such as shared gardens and common rooms like a kitchen and living room, are essential for supporting daily activities and creating a sense of belonging and well-being for seniors in this community. Additionally, the non-hierarchical decision-making structure will give seniors a valued voice within the community, encouraging them to stay involved and engaged longer, which improves their self-reliance and quality of life, thus further contributing to seniors' well-being.

3. Data and methods

This chapter describes the research method used to answer the research question: How do community-oriented real estate developments, such as co-housing, impact the well-being of the elderly? First, the research design and research context will be discussed. Then, the data collection will be described, and finally, the data analysis.

3.1 Research design

Because little knowledge was available on the topic - what impact community-oriented real estate developments, such as co-housing, have on the well-being of the elderly - qualitative research was conducted to develop theories (olde Hartman & Lucassen, 2015; Gioia, Corley and Hamilton, 2012). Qualitative research has discovered and created new concepts and theories (Gioia & Pitre, 1990; Gioia et al., 2012). For this study, semi-structured interviews were used to gain insight into respondents' views on this topic.

3.2 Research context

The context in which this study was conducted is the real estate industry. In recent years, co-housing has been in a resurgence. This is accompanied by an increasing need for a sense of belonging and involvement in a community (Lietaert, 2011; Carrera et al,. 2020; Angioni & Musso, 2020). For this study, the focus was on the well-being of seniors living in a co-housing community. Co-housing residents can tell us how co-housing affects their well-being. Developers and architects, on the other hand, can tell us what elements in co-housing contribute to this well-being. Therefore, this research context focused on the impact of co-housing on the well-being of the elderly.

3.3 Data collection

To answer the research question, data were collected through semi-structured interviews. Using this method allowed us to go deeper into the experiences and views of the respondents. In doing so, not only were preconceived questions asked, but there was also room to ask further questions, which ensured that in-depth information was obtained (Kuyper, 2007). Since little is known about the topic, this is essential for developing new technologies and concepts about the impact that community-oriented real estate developments, such as co-housing, have on the well-being of the elderly. The choice was made not to use structured interviews or surveys, as these methods give respondents less time to share their personal experiences and insights. Although focus groups were also considered, individual interviews were considered more appropriate to gain a deeper understanding of individual viewpoints, so that responses could not be influenced by the presence of group dynamics.

A total of seven semi-structured interviews were conducted from different perspectives to obtain information on the impact of community-oriented real estate developments, such as co-housing, on the well-being of the elderly. Table 1 summarizes the collection of this data and the suitability of the respondents. Data analysis showed that a saturation point was reached after seven interviews. Additional interviews would not yield any new information, meaning that key topics and insights were adequately discussed. All seven respondents were valuable because of their diverse backgrounds and experiences. This diversity contributes to the reliability of the findings. The transcripts created after the interview were returned to the respondents for quality control. This way, the transcript could be checked for any errors or misconceptions.

Respondents' views on the topic were elucidated through these interviews (olde Hartman & Lucassen, 2015). Respondents had to meet three conditions: (i) The interviewee must have knowledge of co-housing; (ii) The interviewee must live in a co-house community or have work related to it; (iii) The interviewee must have knowledge of both co-housing and traditional housing, such as family housing. To obtain quality data, an interview protocol is essential (Yeong, Ismail, Ismail & Hamzah, 2018). The interview protocol is provided in Appendix A.

Code	Data collection method	Function	Location	Reason for suitability
INT1	Semi-structured interviews	Has thought about living in a co-housing community but made a different choice	Haren	Since this person himself has not chosen to live in a co-housing, this offers valuable insights. This person can tell why they chose not to live in co-housing. Through this information, it is possible to see what the disadvantages of co-housing are and whether it also affects well-being.
INT2	Semi-structured interviews	Architect	Eindhoven	Since this architect does a lot with co-housing, this interview can help to understand what the design of co-housing and the environment and spaces should look like to contribute to the well-being of the elderly.
INT3	Semi-structured interviews	Denktank 60+ Noord	Steenwijk	Someone from the board of this organization provides insights on the needs of the elderly. This will help to see if co-housing meets these needs and what that does to well-being.

INT4	Semi-structured interviews	Director of a housing corporation	Zwolle	Has experience managing co-housing projects. This allows knowledge and experience to be shared about the needs of older residents in these housing communities.
INT5	Semi-structured interviews	Province Overijssel	Zwolle	Provides insight into regional policies and initiatives that support co-housing projects, which is important for understanding how this contributes to the well-being of older people.
INT6	Semi-structured interviews	Project developer	Zwolle	Has an understanding of the challenges and benefits of creating co-housing communities, which is essential to understanding feasibility.
INT7	Semi-structured interviews	Founder and resident of co-housing.	Haren	Has personal experiences with co-housing which allows sharing information from practice on how co-housing affects the well-being of the elderly.

Table 1. Overview of data collection. INT = Interviewee.

3.4 Positionality and ethics

According to Hiah (2021), positionality in the research literature is primarily associated with the researcher's position in the research field, particularly their relationships with respondents. Credibility and approachability are the key elements of positionality (Mayorga-Gallo & Hordge-Freeman, 2017; Hiah, 2021). The ability to be perceived as safe and non-threatening is called approachability. The degree to which researchers are considered worthy enough to devote their time to their work is called credibility (Hiah, 2021).

I am considered approachable since I am a student who does not work in this field and has no personal interests. Because I do not come across as threatening, participants feel safe which motivates individuals to respond truthfully to any questions. In addition, I am credible to participants because I have no bias and can look at the topic objectively. This means that my presence as an interlocutor does not make participants behave differently. Therefore, I do not see any negative aspects to my position.

In addition to positionality, ethics are also very important. It was clearly communicated prior to the interviews that the respondents would be completely anonymized in the study and nothing will trace back to them. In addition to being anonymized, transcripts would only be made available upon request to ensure further protection of the participants.

3.5 Data analysis

According to Hartman and Lucassen (2015), "The interviews and discussions are recorded on audio to ensure reliability (verifiability and reproducibility)" (p. 1). Transcripts of the interviews were made using these audio recordings. Permission to record the interview was requested at the start of the interview and consent was given for all interviews. The transcripts of the interviews were coded. This was done using a data structure with first-order codes, second-order codes, and aggregate dimensions (Gioia et al., 2012).

First-order analysis attempts to stay true to the actual wording of the respondents. In this process, the transcripts were coded to divide the text into categories. In the second-order analysis, the similarities and differences between the categories of the codes were analyzed into further sub-themes (Gioia et al., 2012). Then, the second-order themes were further separated into aggregate dimensions. The basis for building a data structure was complete after the full set of aggregate dimensions, second-order themes, and first-order terms were defined (Gioia et al., 2012). According to Gioia et al. (2012), "constructing a data structure forces us to think about the data theoretically, not just methodologically" (p. 20). Figure 2 shows the data structure for this article. Three groups are used: 'Co-housing', 'Pleasant living environment' and 'Well-being of the elderly', so that all sub-questions are answered in the results. From the beginning, this was taken into account while coding to ensure that no information is mentioned twice in different sub-questions. For example, 'Co-housing' discusses what the term means, while 'Well-being of the elderly' looks specifically at how, among other things, the design of co-housing and communal facilities contribute to the well-being of the elderly. 'Pleasant living environment' looks at the general environment, while 'Well-being of the elderly' examines what the environment of a co-housing community should look like and how that contributes to well-being. Appendix B contains a codebook that lists the codes, definitions, and an example of a citation. The results section will include a summary of this data.
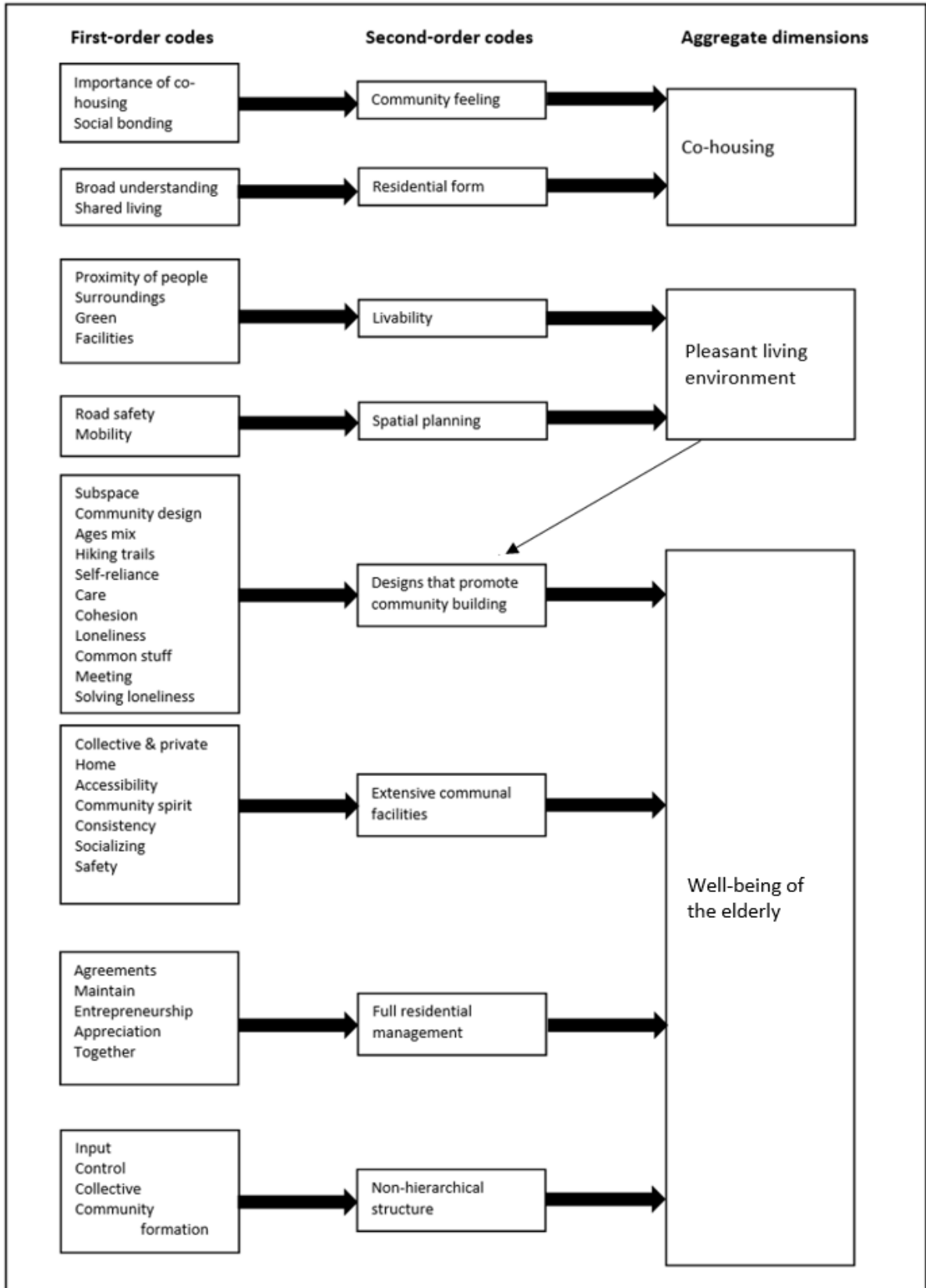
Figure 2. Data structure with first-order codes, second-order codes and aggregate dimensions.

4. Results

This chapter will answer three sub-questions. The first sub-question is: "What is co-housing?" Next, the second sub-question, "What is a pleasant living environment for the elderly?" will be addressed. Following this, the third sub-question, "How does co-housing affect the well-being of the elderly?" will be explored. Finally, we will compare these outcomes with the experiences of a resident in co-housing and provide a discussion.

4.1 What is co-housing?

To answer the question "What is co-housing?" this chapter is divided into two subsections. The first subsection discusses the residential form, and the second subsection discusses the community feeling. Table 2 is an overview of the main findings of this section.

4.1.1 Residential form

According to INT2, co-housing is an *"insanely broad concept that she is always working on in her work"*. For example, she has several projects aimed at moving towards a form of shared living. Or as INT4 nicely says: *"a housing concept to live together"*. INT5 adds: *"That you have more small clusters of housing and there are also shared facilities, so you also have common spaces nearby."* INT3 believes that *"common areas, a central point, where joint activities can be undertaken such as cooking or meeting together"* is part of the definition of co-housing.

4.1.2 Community feeling

INT1 indicates social bonding in residential communities. INT4 emphasizes the importance of this, saying:

> *"You can actually be very sick and still be very happy if you belong somewhere, like a family, a network, a neighborhood or a community."*

Therefore, co-housing creates a strong social bond that provides a sense of belonging and reduces loneliness, which contributes to happiness. However, INT1 also notes that co-housing *"has to suit you and it varies from person to person. For some, co-housing is the ideal environment to ensure that a person is not lonely and contributes to other things such as having enough to drink in a day. For these individuals, some form of co-housing is very important and contributes to health, but this is not true for everyone."* Thus, the experience of co-housing depends on individual needs and preferences.

INT1's needs and preferences do not fit co-housing because he knows from experience that this form of housing is not for him after looking at it.

Theme	Main finding(s)	Evidence
Residential form	Co-housing is a way of living together. This can be done by creating small clusters of homes with common areas and amenities.	"That you have more small clusters of housing and that there are also shared facilities, so you also have common areas nearby." (INT5)
Community feeling	That you can become very happy by feeling that you belong somewhere, like co-housing.	"You can actually be quite sick and still be very happy if you belong to something, like a family, a network, a neighborhood or a community." (INT4)

Table 2. Overview of key findings on "What is co-housing?" by theme discussed.

4.2 What is a pleasant living environment for the elderly?

To answer the question "What is a pleasant living environment for the elderly?" this chapter is divided into two subsections. The first subsection discusses the livability and the second subsection discusses the spatial planning. Table 3 is an overview of the main findings of this section.

4.2.1 Livability

The livability of an environment involves many factors.. For example, according to INT5, it is important to consider:

"especially a lot of thinking is done from the proximity of facilities."

INT3 also emphasizes the importance of having *"everything close by so you can reach everything you need. Such as the pharmacy, library, supermarkets, stores, but also transportation."* INT1 indicates that the environment should be pleasant and that there should be benches to rest on while taking a stroll. He also finds a green environment very important. In contrast, INT4 finds this less important. According to him, it is not so much about *"the presence of trees, sufficient parking space, or the proximity of facilities in the neighborhood, but much more about what you are part of."* For example, he says it is precisely important to:

22

"Being part of a network and experiencing the closeness of people."

INT5 also considers proximity to people important for the livability of an environment, saying, *"Do you have a place to meet? For example, do you also just have common areas, like a garden where you can meet people consciously and unconsciously?"*

4.2.2 Spatial planning

The first point is that it is important for the environment to be accessible. For example, according to INT5, it is important that even if you are a little older and less mobile, you still have access to the living environment. *"So there are safe conditions so that as a less mobile elderly person you can also get around yourself"*. INT3 complements this by saying that it is important to work with the Convention on Disability so that people who are not 100% able-bodied are also taken into account.

In addition, according to INT3, the traffic situation should be such that *"you can move there easily and not have to hold your breath every time you want to cross the street because it is a dangerous crossing. In addition, it is important to take into account the elderly in this regard, since they have a different pace than the youth"*. She adds that *"lighting should also be present, the streets should be well maintained, and there should be no protruding tiles that can cause falls"*. This contributes to the accessibility of the area, as INT3 has learned from its extensive experience in understanding the specific needs and preferences of the elderly.

Theme	Main finding(s)	Evidence
Livability	The presence of amenities such as supermarkets, pharmacies and transportation options is not the only factor that determines the livability of an area; the degree of social connection and sense of community is also important.	"Especially a lot of thinking is done from the proximity of facilities." (INT5) "Being part of a network and experiencing the closeness of people." (INT4)
Spatial planning	An accessible living environment is essential for the elderly.	"Just accessible and accessible for the elderly to just, for when

		you're also a little less mobile, to have access." (INT5)

Table 3. Overview of key findings on " What is a pleasant living environment for the elderly?" by theme discussed.

4.3 What is the effect of co-housing on the well-being of the elderly?

To answer the question "What is the effect of co-housing on the well-being of the elderly?" this chapter is divided into four subsections. The first subsection discusses the designs to promote community building, the second subsection discusses the extensive communal facilities. The third subsection discusses the full residential management and finally the fourth subsection discusses the non-hierarchical structure. Table 4 is an overview of the main findings of this section.

4.3.1 Designs to promote community building

According to INT2, more than 50% of Dutch people are lonely. INT6 adds that when people become lonely, their health also declines. For example, his own father became more *"forgetful and, on top of that, he started doing fewer activities."* INT2 thinks that *"loneliness is going to increase, so more and more people will seek communities."* She does not believe that this can solve loneliness entirely, but it can certainly help alleviate it. INT1 also believes this:

"As far as I'm concerned, the most important thing in terms of co-housing is that you fight loneliness, reduce loneliness."

You can do this by encouraging encounters, and that's where designers can play a big role, according to INT2. *"For example, we position the front doors in such a way that they come together rather than away from each other. Then when you and your neighbor both come home you still have a moment of social interaction."* She has noticed in her work that designing for social interaction significantly improves residents' quality of life. However, according to INT4, *"the design must facilitate this by being on a scale and in an atmosphere where people feel comfortable."* You have to make sure that, on the one hand, you encourage interactions but, on the other hand, that spontaneous meetings between people can be achieved. This is why INT1 likes communal spaces so much because people *"can physically sit there whenever they want, chat, and make friendships."* According to INT4, *"the size of this space is important, not too big because that is unsociable but also not too small because you have to be able to sit in a circle with each other."* INT3 also thinks it is important that if there is a shared kitchen it is also big enough to cook together. INT6 and INT3 think a shared bedroom for the grandchildren, for example, is also very nice. According to INT5, we are currently in a transition of care

and it remains to be seen to what extent care can still be provided later. If there is a mix of ages living in these co-housing communities, the young people could support the elderly even more.

In addition, *"walking routers are also very important. When people walk a lap, how do they do it? Do they walk the same lap in succession, do they encounter other people? You can influence all of this"*, according to INT2, which is why she really enjoys sitting down with an environmental psychologist. INT3 also reveals that it is important to meet each other on walking routes, *"both indoors and outdoors."* According to INT5, it is important to make smart connections on the hallways that make it feel lively but enforce the feeling of having to meet each other. INT2 says that when designing, they often choose *"small gardens with a large collective area, which again is not too large."* This along with not too many homes but just enough which allows for social cohesion. *"Those who like it will be able to maintain this garden together"*, says INT3.

INT2 indicates that *"people don't want to leave their homes at all, but once they live in a place where they are challenged to be more socially cohesive, such as co-housing, they often become happier and are self-reliant for longer."* These social interactions, she says, *"therefore contribute to the well-being of the elderly."* INT6 also believes that this will help them stay more active for a longer period, both mentally and physically. He thinks that "*many elderly people who sit behind the geraniums are slowly wasting away*". INT4 adds to this by saying that *"the sense of belonging contributes enormously to your sense of happiness."*

4.3.2 Extensive communal facilities

In co-housing, there is a mix of collective and private spaces. For example, INT2 has a project where people have a compact private outdoor space that connects to a collective garden. This way, they can choose, whether to socialize with the neighborhood or sit quietly on their own terrace. INT5 believes a communal garden works well for doing communal activities. *"If you enjoy maintaining a garden, you can do it together with others."* INT4 speaks from experience when he says it is important for residents to decide what they want to do in the common areas. *"If the residents themselves want to have a jeu de boules court, that's great, but you shouldn't build this in advance"*.

Even with the indoor spaces in co-housing, you can decide what you feel like doing. You can go to the communal space if you want social interaction. INT3 says that "*if you feel like it, you can go there and talk to people or do activities, and if you don't feel like it at all, you shouldn't live in a co-housing. After all, it really has to come from both sides so that you can also call on each other for errands or if help is needed.*" According to INT6, the idea of taking care of each other can reduce anxiety.

INT2 indicates that the positioning of these shared facilities, such as the common room, is important. "*You have to make the facilities visible so that people see that they are part of it.*" If you see people having a good time in the living room, you are more likely to join them and do something

together. INT5 thinks this depends on the group; it very much depends on the hobbies of the group whether they want to cook together, play billiards, or work in the vegetable garden. INT4 adds that *"people need to get to know each other before they also want to do things together."*

According to INT2, you have to make sure that co-housing residents feel safe, oriented, independent and socially engaged. INT6 adds that *"mental well-being is really improved by the communal facilities and that this is also called a positive effect on physical well-being".* INT1 believes that *"physical well-being is also very important, and that is where the physical facilities come in"*. Being able to paint, do pottery, or make music in the common areas is definitely an benefit to the well-being of the elderly.

4.3.3 Full residential management

Of course, a lot has to be agreed upon in a co-housing community. *"Are you allowed to use the common areas for parties? Do you agree to eat together once a week? Aree pets allowed? What is money spent on? Who arranges and pays for the maintenance of the garden and the building?"* According to INT3, these are all important agreements that need to be made. Based on her experience, INT2 knows that maintenance is also necessary. She said:

> *"If you live in a beautiful environment or in a nice environment or in a green environment, you're going to take care of that."*

According to INT1 and INT3, this can mean *"working in the garden, or making sure the coffee table is tidy, or cleaning the kitchen,"* for example. Yet friction can also arise tells INT6: *"At some point the window frames have to be painted. Well, you can do that yourself or you can then arrange for a painter, you will talk to each other about that. But one will say, 'arrange a painter because I don't feel like it,' and the other will say, 'yes that costs money, I will do it myself.' Then he's going to do it himself and the neighbor thinks he hasn't been neat again. So that can cause tension."* INT5 adds that, according to him, performing maintenance depends on each person. There are always places where joint management, such as maintenance, does not go the way it should. *"Sometimes it is so bad that the property owner has to go back and do something somewhere, think about hiring a cleaner if the common areas are really a mess and neglected."*

"You also see that people who are good at something or used to be good at something or were on a board where they had to arrange things are still able and willing to do that", says INT3. *"They get satisfaction from the fact that they can contribute something, and in the end, the most important thing is that people do what they are good at, and in this way contribute and get appreciation for it."* And according to INT5, this also contributes to solidarity if it connects as an activity. Because if you want to

do something together, you also have a common goal. INT1 complements this by saying that *"doing something together is essential for togetherness."* In addition, according to INT5, it also contributes to well-being:

> *"The longer you stay active, the healthier you stay."*

According to INT1, it contributes to well-being because you have community involvement. INT3 agrees, she also feels that well-being is enhanced by active participation in community management.

4.3.4 Non-hierarchical structure

INT2 considers it very important that residents have a say. In her case, potential residents were already at the table to think along before they had even put one line on paper. *"You create a common dream and work towards that dream together, so even though people are different, you have a dot on the horizon where you want to go together".* INT6 also thinks the participation of residents is very important. For example, he says he also wants "*residents to indicate what they want their co-housing community to look like. And that could be one large kitchen but could also be three small kitchens and living rooms, just whatever they want*". INT1 also finds it important that everyone has a voice in the decision-making processes: *"I think that's actually essential. That you just secure a democracy."* He complements this by saying that if you do it authoritatively you can make meters faster but that he is really in favor of the democratic structure. Here INT6 agrees, indicating that they all own the co-housing and therefore are responsible, that is their right. So it is important that everyone has their own voice. He complements this by saying, *"it is a kind of democracy where your voice can be overshadowed."* You have to be able to stand that. INT3 says that *"you have to be able to adapt to what the majority wants."* INT5 does think it is important to keep in mind that, *"people who are pro or against something make themselves heard more easily than the people who say, 'well, I don't know yet.'"*

Participation, according to INT4, contributes to well-being. Being able to collectively decide what to do with a particular space, for example, is important. INT6 also thinks that having a voice in decision-making processes contributes to well-being:

> *"We can take everything away from these elderly people, but that won't make them smarter and it will make them lazier, and with that their well-being will also be reduced."*

Theme	Main finding(s)	Evidence
Designs that promote community building	Co-housing can encourage social interactions and create encounters which can reduce loneliness and improve well-being.	"Those people who actually don't want to just get out of that house at all, and what you do often see is that once they live in a place where they're challenged to be more socially cohesive, then they often become happier and they're self-sufficient for longer." (INT2)
Extensive communal facilities	Communal facilities contribute to both mental and physical well-being	"I think so. And, I think mainly the well-being and you have several things. You have the physical well-being, but especially the mental well-being. I think that's really improved, and with that the physical well-being is also improved. The two just always hang together." (INT6)
Full residential management	Active participation in the management and maintenance of co-housing communities is essential for promoting togetherness and the well-being of residents, although this can sometimes cause conflict.	"The longer you stay active, the healthier you stay." (INT5)
Non-hierarchical structure	Active participation and empowerment of residents in decision-making processes within co-housing communities	"We can take everything away from these elderly people, but that won't make them smarter and it will make them lazier,

| | is essential to promoting collective well-being | and with that their well-being will also be reduced." (INT6) |

Table 4. Overview of key findings on "What is the effect of co-housing on the well-being of the elderly?" by theme discussed.

4.4 Does the resident and founding co-holder agree with the above details?

4.4.1 What is co-housing?

In the 1970s, INT7 came into contact with someone who was interested in group housing for the elderly, and that's when her journey with co-housing began. Now, this community has been in existence for seven years. In the beginning, they had to recruit people who actually wanted to live with each other but fortunately they succeeded. Together they have a common room where they can get together. Here they have coffee, meals, and meetings together. They all have groups for different activities; for example, every Monday morning, she meets with fellow residents for painting and drawing. This makes her feel involved. Since they are all older, a gardener helps with maintaining the garden. This corresponds to what the other interviewees mentioned. However, what is different from the other interviews is the absence of a communal kitchen.

In fact, in this plan they did not have a communal kitchen built. During the preparation phase, they visited other co-housing housing communities a lot to get their bearings. There it soon became apparent that there was little cooking and eating together. So now, if they want to eat together, they can have everyone bring something, but they didn't have a whole kitchen built for it. This would have costs a lot of money, so they chose not to do this. So, most respondents reported that it should include a communal kitchen but the resident and founder indicated that it is not necessary due to experiences of other co-housing communities.

4.4.2 What is a pleasant living environment for the elderly?

INT1 to INT6 emphasized the importance of proximity to amenities such as a pharmacies and a supermarkets. Additionally, accessibility is crucial because elderly people's mobility declines. The respondents indicate that the environment should be safe, and according to most of them, it should also be green. On the other hand, INT4 and INT5 emphasized the importance of proximity to other people. INT7 indicates that this is indeed important for a pleasant living environment. She is not discussing a green and safe environment, but emphasized the importance of people seeing the positive qualities in each other and working with them. There are many positive aspects, such as helping each other, being involved, and staying informed about each other's health. *"That if someone needs to go to the hospital, someone else can help with that by bringing them. You don't live on an island there, but*

you are open to each other and informed". So, according to respondents, both physical proximity to amenities and a green environment and social interaction and engagement are essential to a pleasant and safe living environment for the elderly.

4.4.3 What is the effect of co-housing on the well-being of the elderly?

4.4.3.1 Designs to promote community building

The respondents indicate that there is a lot of loneliness in the Netherlands. INT1 and INT2 believe that co-housing can help reduce this loneliness. They emphasize the importance of fostering encounters, which involves designing walking routes, positioning doors and communal areas, creating an appropriate atmosphere, and determining the size of these shared spaces. The common spaces should strike a balance; not too large because that is unsociable but also not too small. After all, a sense of belonging contributes significantly to your sense of happiness.

According to INT7, like everyone else, you also need a common spaces. The garden, which you can maintain together, is important because this provides social interaction. According to INT7, it matters how you are in life as an individual and how you connect with others. The possibility to communicate and meet each other is very important, but you have to invest in this yourself. Do you drink coffee in your own room or in the common room and show your social side? This is your own choice. She thinks it helps to meet in the hallway, in the garden, or in the coffee room, so you have more social interaction moments. She says this can improve well-being but is not the solution for everyone. According to respondents, the design of co-housing can help reduce loneliness by encouraging encounters, which creates social interactions.

4.4.3.2 Extensive communal facilities

You have to deal with collective and private spaces. This way, you can choose to socialize or retreat. INT5 indicated that the garden is a good place to work together. INT7 also indicated this. By maintaining the garden together, you have personal contacts in your immediate environment. She thinks this is very important. If you use the housing group, it has a lot to offer, such as painting with a club in the common areas. However, living in a co-housing community is not for everyone. As INT3 points out, you have to want to socialize and participate in activities. According to INT7, some people are very involved and like to come into the common areas and others live a little past it. She thinks it's important that the opportunity exists to get together in the common area. That is a binding element. Like INT6, INT7 thinks residents feel safe by living in a community. As long as you want it for yourself, she thinks community facilities can certainly contribute to well-being. According to respondents,

communal facilities in co-housing can help reduce loneliness and promote well-being by encouraging encounters and social interactions.

4.4.3.3 Full residential management

According to INT1 to INT6, it is important that arrangements be made for management. Additionally, maintenance must be performed. This can mean working in the garden or cleaning common areas. It is important for someone to do something they are good at and get satisfaction from. INT7 agrees with this. She indicates that you have to make use of everyone's qualities. One person is good at leading a meeting, others are more into cleaning, and still others know a lot about the garden. You do what you can and contribute your own qualities to the whole. However, it is important that you want to have contact with others because otherwise you can be very lonely even in a co-housing. It depends on the initiative of the residents. According to INT7, this joint management contributes to well-being if you participate in it. This is consistent with the results of the other interviews. So according to respondents, full residential management is crucial to a successful co-housing community because it provides contact moments with each other.

4.4.3.4 Non-hierarchical structure

Like the other respondents, INT7 believes it is important for everyone to have a voice. She indicates that, in theory, this is also the case, but not all people participate. The idea is that decisions are made together. According to INT7, having a voice contributes to well-being. Thus, according to the respondents, it is important that everyone has a voice in the decisions within the co-housing community. This way, they feel part of a community, which contributes to well-being.

5. Discussion

The purpose of this study was to understand the influence of community-oriented real estate developments, such as co-housing, on the well-being of the elderly. This research explores whether the well-being of the elderly is improved by living in co-housing. To achieve this, we delve into the meaning of co-housing, what constitutes a pleasant living environment, and the well-being of the elderly.

5.1 Co-housing

Previous research by Tummers (2015a) indicates that a co-housing community consists of self-managed residential clusters with shared spaces, which create interaction, engagement, and collaboration among residents. Beck (2019) complements this by indicating that, in order to become a cohesive community, it is important for people to engage in activities together. According to Lietaert (2011), Carrera et al. (2020), and Angioni & Musso (2020), people increasingly feel the need for a sense of belonging and involvement in a community. The findings of previous studies overlap with the findings of this thesis. This thesis further emphasizes the importance of social bonding. No matter how sick you are, belonging to something (such as a community) can still make you very happy. In addition, this thesis reveals that living in a co-housing should suit you, as an individual. For some, it will be the ideal living environment and for others, it will fit less.

5.2 Pleasant living environment

According to previous research by Teugels, Deruytter, De Donder and Dury (2015), a safe and pleasant living environment is crucial for the elderly. They consider it important to have many amenities nearby. This thesis also showed that proximity to amenities is very important for a pleasant living environment. Additionally, this thesis revealed new insights. For example, three respondents indicated that proximity to people is especially important. Furthermore, it is important to work with people's qualities and see the positive sides of each other. By helping each other and being involved with each other, a community is created where everyone feels valued and supported. Finally, the respondents of this thesis believe that an accessible and safe environment is important so that seniors can move easily through the neighborhood.

5.3 Well-being of the elderly

This thesis looked at four factors that may affect the well-being of the elderly, namely: designs that promote community building, extensive communal facilities, full residential management, and

non-hierarchical structure. First, designs that promote community building is discussed. According to Beck (2019), the physical structure of co-housing consists of multiple individual homes coming together with shared spaces and facilities. In the shared spaces, residents can come together for such things as meals or other activities. This thesis also identifies the importance of getting together, providing new insights into the literature. In this way, friendships can be formed that combat loneliness. According to Doorten & Meurs (2015), a pleasant living environment should invite people to go outside. After all, this contributes to meeting people and staying mobile for longer. This was also raised by a respondent in this thesis. For example, it was indicated that people do not just want to leave their homes anymore, but once they live in a place where they are challenged with more social cohesion, such as co-housing, they often become happier and are self-sufficient for longer. These social interactions therefore contribute to the well-being of the elderly. Moreover, according to Lager et al. (2012), the height or width of sidewalks can hinder people's mobility when walking with walkers, mobility scooters, or wheelchairs. This means that the design of the built environment can have a major impact on people's well-being. This thesis also reveals that the design of the built environment is very important. Only the respondents are not talking about sidewalks but about encouraging encounters. Hence, the design of these residential communities takes into account walking routes, positioning of doors and spaces, atmosphere, and the size of spaces. This creates social interactions and thus affects the well-being of older residents.

The second factor that appears in this study is: extensive communal facilities. Lager et al. (2012) indicate that living in a co-housing community provides an environment where common interests can be shared and activities can be undertaken. This thesis also suggests that shared activities are very important. By tending the garden together or painting with a club once a week, you have social interactions. According to Carrera et al. (2020), co-housing creates more mutual support and a sense of community among residents, which reduces feelings of loneliness in the elderly and increases their well-being. The respondents of this thesis also believe that shared facilities can contribute to well-being, as long as they are willing to use these facilities.

The third factor that appears in this thesis is: full residential management. According to Beck (2019), each co-housing project is designed, built, and managed in its own way. The location, formation methods, group dynamics, values, and visions are all unique. Tummers (2015a) emphasizes the importance of working together during construction and management. Finally, Durrett (2009) and Angioni & Musso (2020) state that "senior co-housing revolves around custom-built neighborhoods organized by the seniors themselves in order to fit in with their real needs, wants, and aspirations for health, longevity, and quality of life" (p. 762). The respondents in this thesis also believe that making joint arrangements for management is important. After all, it must be determined together how the co-housing will be maintained. A new insight from this thesis is that respondents believe it is important

33

for residents to contribute in areas in which they are good. One resident knows a lot about the garden and another about finances. This also adds to the social interaction moments because for management you need to be in touch with each other. Hence, respondents indicated that joint management contributes to well-being as long as you participate in it.

The final factor discussed in this thesis is the non-hierarchical structure. Research by Kesler (1991) suggests that it is important for each resident to have a voice in decision-making. This is because it will strengthen the sense of community and can improve residents' well-being, according to research by Carrera et al. (2020). Respondents in this thesis also indicated that it is very important for every resident to have participation and a say. This is essential for creating a close-knit community. It also challenges residents not to become lazy and to keep thinking. In addition, respondents in this thesis indicated that in addition to having a voice in the co-housing, it is also important that potential residents participate in thinking about what the entire project should look like. This thesis, like the literature, suggests that having a voice in decision-making contributes to well-being.

5.4 Implications and limitations of the study

This thesis examined how co-housing affects the well-being of the elderly. Through this research, it became clear that four characteristics associated with co-housing indeed improved residents' well-being. Like any research, this thesis has its limitations. Seven interviews were conducted with respondents. Three of these respondents lived in Zwolle and two in Haren. Although these interviews provided insightful information, the limited sample size may not be sufficient to validate and generalize the results. In addition, respondents should be located throughout the Netherlands to increase generalizability. Moreover, coding the data by multiple researchers could encourage cross-checking and ensure the reliability and consistency of the results.

It is encouraged that follow-up research examines whether suitable co-housing for the elderly promotes homeownership and can contribute to more available housing for first-time buyers. In addition, it may be important to conduct a target group study to determine if everyone is interested in co-housing communities or if there are certain target groups for this. Finally, a study could be conducted focusing on healthcare in the Netherlands. Would fewer care personnel be needed if many people with care needs live together in a co-housing community?

6. Conclusion

This thesis examined how community-oriented real estate developments, such as co-housing, affect the well-being of the elderly. This research was conducted using three sub-questions. The first sub-question, *"What is co-housing?"*, was answered using existing literature and the findings of this thesis. Co-housing is a form of communal living where residents have private spaces and share common areas and facilities. Joint activities can take place in these common areas, contributing to social interaction among residents.

The second sub-question, *"What is a pleasant living environment for the elderly?",* focuses on what the elderly find important in their environment. According to both existing literature and the findings in this thesis, this is an environment where amenities are close by. This thesis shows that, in addition, safe conditions and good accessibility are also important, so that residents can move around easily and be self-reliant. The most important finding that emerges in this thesis is proximity to people and social interaction.

Finally, the third sub-question, *"What is the effect of co-housing on the well-being of the elderly?",* discusses the impact of co-housing on elderly well-being. Although co-housing communities differ, they all have six characteristics in common. For this thesis, we examined the impact of four of these characteristics on the well-being of the elderly. Four key findings emerged from this thesis. First, the design of co-housing and its environment contributes to the meeting of residents, which provides social interaction and contributes to the well-being of the elderly, according to this thesis. Second, community facilities are important; by engaging in activities together, residents experience social interaction that reduces loneliness and improves well-being. This topic was discussed both in existing literature and in this thesis. Third, a sense of complete resident management contributes to elderly well-being. Residents must agree on how they will manage and maintain the co-housing, which promotes social interaction among residents and thus contributes to elderly well-being, according to this thesis. Finally, a non-hierarchical structure is important. This thesis, similar to the literature, suggests that having a voice in decision-making contributes to the well-being of the elderly. It is important that every resident has a voice and a say. This creates a close-knit community that encourages people to think.

So, how do community-oriented real estate developments, such as co-housing, affect the well-being of the elderly? The results show that co-housing significantly improves the well-being of the elderly by promoting social interaction among residents, reducing loneliness through proximity to others, and creating a sense of community.

References

Angioni, M., & Musso, F. (2020). New perspectives from technology adoption in senior cohousing facilities. *The Tqm Journal*, 32(4), 761–777. https://doi.org/10.1108/tqm-10-2019-0250

Baas, T. (2023, 13 februari). "Vergrijzing verreweg grootste boosdoener woningnood". *bnr.nl*. https://www.bnr.nl/nieuws/bouw-woningmarkt/10502722/vergrijzing-verreweg-grootste-boosdoener-woningnood

Bastiaans, J. (november 2022). Professionalisering van gemeenschappelijk wonen: De bewonerstevredenheid van nieuwe woonconcepten voor 55+'ers. *Real Estate Research Quarterly.*

Beck, A. F. (2019). What Is Co-Housing? Developing a Conceptual Framework from the Studies of Danish Intergenerational Co-Housing. *Housing Theory And Society*, *37*(1), 40–64. https://doi.org/10.1080/14036096.2019.1633398

Brenton, M. (2013), "Senior cohousing communities - an alternative approach for the UK?", *Joseph Rowntree Foundation Programme Paper*, pp. 1-21, available at: https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/senior-cohousing-communities-full.pdf.

Carrere, J., Reyes, A., Oliveras, L., Fernández, A., Peralta, A., Novoa, A. M., Pérez, K., & Borrell, C. (2020). The effects of cohousing model on people's health and wellbeing: a scoping review. *Public Health Reviews*, 41(1). https://doi.org/10.1186/s40985-020-00138-1

Critchlow Rodman, M. (2013), "Co-caring in senior cohousing: a Canadian model for social sustainability", *Social Sciences Directory*, Vol. 2 No. 4, pp. 106-113.

Dijkman, M. (2017). Collectief wonen voor senioren heeft de toekomst. *Gerōn,* 19(1), 61–64. https://doi.org/10.1007/s40718-017-0017-6

Doorten, I., & Meurs, P. (2015). Ruimte voor redzaamheid. *TSG - Tijdschrift Voor Gezondheidswetenschappen*, *93*(4), 117–118. https://doi.org/10.1007/s12508-015-0043-5

Durrett, C. (2009). The senior cohousing handbook: a community approach to independent living (2nd Ed.). Gabriola Island, *BC: New Society Publishers*.

Gebrek aan voldoende passende woningen voor ouderen. (2023, 13 februari). *https://zorgkrant.nl/ouderenzorg/16798-gebrek-aan-voldoende-passende-woningen-voor-ouderen*

Gioia D. A., Pitre E. (1990). Multiparadigm perspectives on theory building. *Academy of Management Review*, 15, 584–602. Crossref.

Gioia, D. A., Corley, K. G. & Hamilton, A. L. (2012). Seeking Qualitative Rigor in Inductive Research. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Helliwell, J. F., & Putnam, R. D. (2004). The social context of well–being. *Philosophical Transactions Of The Royal Society B*, *359*(1449), 1435–1446. https://doi.org/10.1098/rstb.2004.1522

Hiah, J. (2021). Navigeren in het onderzoeksveld en het onderzoekersveld: reflecties op onderzoekspositionaliteit in (vermeend) insideronderzoek. *KWALON*, *26*(1), 43–51. https://doi.org/10.5117/kwa2021.1.005.hiah

Ismail, A. (2021). Appraising a sense of community in designing senior housing for elderly quality of life. *journals.iium.edu.my.* https://doi.org/10.31436/japcm.v11i1.626

Kennis, N. (2022, 16 december). Is de vergrijzing een probleem? *NPO Kennis*. https://npokennis.nl/longread/7520/is-de-vergrijzing-een-probleem

Kesler, B. (1991). *Centraal Wonen in the Netherlands, a study of residents' experiences and social and spatial conditions*.

Kramp, J. L. (2012). Senior Cohousing: an optimal alternative for aging in place. *[Stillwater, Oklahoma] : Oklahoma State University, 2012.* https://shareok.org/handle/11244/8597

Kuyper, M. (2007). 4 Het halfopen interview als onderzoeksmethode. Kwalitatief onderzoek, 43–51. https://doi.org/10.1007/978-90-313-6373-5_4

Lager, D., Van Hoven, B., & Meijering, L. (2012). Places that Matter: Place Attachment and Wellbeing of Older Antillean Migrants in the Netherlands. *European Spatial Research And Policy*, *19*(1), 81–94. https://doi.org/10.2478/v10105-012-0007-6

LVGO (2010), Landelijke vereniging groepswonen van ouderen (*National Association for Senior Cohousing Communities*), http://www.lvgo.nl, 5 November 2011.

Mayorga-Gallo, S., & Hordge-Freeman, E. (2017). Between marginality and privilege: Gaining access and navigating the field in multi-ethnic settings. Qualitative Research, 17(4), 377-394.

Meijering, L. (2023). Ruimte voor gezondheid: het belang van de leefomgeving en mobiliteit voor het welbevinden van ouderen. In *University of Groningen Press eBooks*. https://doi.org/10.21827/64b54a370bf65

olde Hartman, T. & Lucassen, P. (2015, januari). Kwalitatief onderzoek. *Huisarts en wetenschap*, *58*(1), 19–19. https://doi.org/10.1007/s12445-015-0012-x

Reep, M. A. R. K. C. (2020, 9 augustus). 55-plussers over hun (toekomstige) woning. *Centraal Bureau voor de Statistiek.* https://www.cbs.nl/nl-nl/longread/statistische-trends/2020/55-plussers-over-hun--toekomstige---woning?onepage=true

Ren, H., Folmer, H., & Van Der Vlist, A. (2016). The impact of home ownership on life satisfaction in urban China: A propensity score matching analysis. Journal of Happiness Studies. https://doi.org/10.1007/s10902-016-9826-x
Research. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151
Research. *Organizational Research Methods*, *16*(1), 15–31. https://doi.org/10.1177/1094428112452151

Taşoz, Ş. M. (2020). *The use of personas in understanding healthy aging: senior housing experiences through importance performance analysis (IPA) and simulated physical aging.* http://repository.bilkent.edu.tr/handle/11693/54205

Teugels, H., Deruytter, K., De Donder, L., & Dury, S. (2015). Pensioensparen met het BuurtPensioen. Gerōn, *17*(2), 35–38. https://doi.org/10.1007/s40718-015-0037-z

Tummers, L. (2015). The re-emergence of self-managed co-housing in Europe: A Critical review of co-housing research. Urban Studies, 53(10), 2023–2040. https://doi.org/10.1177/0042098015586696

Tummers, L. (2015a). Understanding co-housing from a planning perspective: why and how? *Urban Research & Practice*, *8*(1), 64–78. https://doi.org/10.1080/17535069.2015.1011427

Van Erven Dorens, P. (2023, 7 september). Woningbouwers: 2 miljoen extra huizen nodig vanwege bevolkingsgroei. De Telegraaf. https://www.telegraaf.nl/financieel/665954560/woningbouwers-vergrijzing-leidt-tot-golf-arbeidsmigranten

Van Soomeren, P., & H.D. Steinmetz, C. (2017, 9 februari). *Artikel: Collectieve solidariteit: samen voor ons eigen - DSP-groep*. DSP-groep. https://www.dsp-groep.nl/projecten/artikel-collectieve-solidariteit-samen-eigen/

Wansink, W. (2019). Yvonne Wilders: 'Benut elkaars sterke punten'. *Skipr*, 12(7–8), 20–23. https://doi.org/10.1007/s12654-019-0069-4
wetenschap, *58*(1), 19–19. https://doi.org/10.1007/s12445-015-0012-x

Yeong, M. L., Ismail, R., Ismail, N. H. & Hamzah, M. I. (2018). Interview Protocol Refinement: Fine-Tuning Qualitative Research Interview Questions for Multi-Racial Populations in Malaysia. *The Qualitative Report.* https://doi.org/10.46743/2160-3715/2018.3412

Appendix

Appendix A: Interview Protocol

Introduction

Heel erg bedankt dat ik u mag interviewen voor mijn Master onderzoek. Het interview is volledig geanonimiseerd. In mijn onderzoek zal uw naam niet worden genoemd en zal er geen informatie in staan die naar u te herleiden valt. Vindt u het goed dat ik het gesprek opneem? Het doel van mijn interview is om erachter te komen welke invloed gemeenschapsgerichte vastgoedontwikkelingen, zoals co-housing, hebben op het welzijn van ouderen.

Interview questions older people:

Co-housing:

1. Wat is uw ervaring met co-housing?
2. Wat vindt u van de interactie en betrokkenheid met de bewoners van co-housing?
3. Welke factoren zorgen voor een aangename leefomgeving?
4. Wat is de impact van co-housing op de fysieke en mentale gezondheid?
5. Kan co-housing gezien worden als een oplossing voor eenzaamheid, gebrek aan betaalbare huisvesting en gemeenschapsgevoel?

Ontwerpen die gemeenschapsvorming bevorderen:

6. Hoe draagt het ontwerp van gemeenschappelijke ruimtes en faciliteiten bij aan het bevorderen van sociale interactie en het opbouwen van het gevoel van het wonen in een gemeenschap?
7. Welke ontwerpelementen zorgen ervoor dat u samenkomt met andere bewoners en samen activiteiten onderneemt?
8. Draagt het ontwerp van deze gemeenschapsvorming bij aan uw welzijn?

Uitgebreide gemeenschappelijke voorzieningen:

9. Wat is volgens u het meest waardevol aan de gemeenschappelijke voorzieningen (tuinen, woonkamer)?
10. Draagt co-housing bij aan dat u zich veilig, georiënteerd, onafhankelijk en sociaal betrokken voelt?
11. Hoe dragen deze gemeenschappelijke voorzieningen bij aan uw welzijn?

Residentieel beheer:

12. Hoe draagt het gezamenlijke beheer van de woonvoorzieningen bij aan het gevoel van saamhorigheid?

13. Op wat voor manieren kunnen bewoners samenwerken om de gemeenschappelijke ruimtes te beheren?

14. Hoe draagt het volledige gezamenlijke beheer (residentiele beheer) bij aan het verbeteren van uw welzijn?

Niet-hiërarchische structuur:

15. Hoe belangrijk is het dat de bewoners allemaal een stem hebben in de besluitvormingsprocessen?

16. Wat is het voordeel van dat alle bewoners een stem hebben (een niet-hiërarchische structuur)?

17. Hoe draagt dit (niet-hiërarchische structuur) bij aan uw welzijn?

Overig:

18. Wat is volgens u de toekomst van co-housing?

19. Ben ik nog iets vergeten wat u graag zal willen toevoegen?

Interview questions professionals:

Co-housing:

1. Kunt u eerst iets vertellen over uw werk?

2. Wat is uw ervaring met co-housing?

3. Wat vindt u van de interactie en betrokkenheid van de bewoners van co-housing?

4. Welke factoren zorgen voor een aangename leefomgeving voor ouderen?

5. Wat is de impact van co-housing op de fysieke en mentale gezondheid van senioren?

6. Kan co-housing gezien worden als een oplossing voor eenzaamheid, gebrek aan betaalbare huisvesting en gemeenschapsgevoel?

Ontwerpen die gemeenschapsvorming bevorderen:

7. Hoe draagt het ontwerp van gemeenschappelijke ruimtes en faciliteiten bij aan het bevorderen van sociale interactie en het opbouwen van het gevoel van het wonen in een gemeenschap?

8. Welke ontwerpelementen zorgen ervoor dat bewoners samen komen en activiteiten ondernemen?

9. Draagt het ontwerp van deze gemeenschapsvorming bij aan het welzijn van de senioren?

Uitgebreide gemeenschappelijke voorzieningen:

10. Wat is volgens u het meest waardevol aan de gemeenschappelijke voorzieningen (zoals tuinen en woonkamers) in dit project?

11. Hoe kunnen de gemeenschappelijke voorzieningen geoptimaliseerd worden om de bewoners het meeste voordeel te bieden?

12. Draagt co-housing bij aan zich veilig, georiënteerd, onafhankelijk en sociaal betrokken voelen?

13. Hoe dragen deze gemeenschappelijke voorzieningen bij aan het welzijn van senioren?

Residentieel beheer:

14. Hoe draagt het gezamenlijke beheer van de woonvoorzieningen bij aan het gevoel van saamhorigheid?

15. Op wat voor manieren kunnen bewoners samenwerken om de gemeenschappelijke ruimtes te beheren?

16. Hoe draagt het volledige residentiele beheer bij aan het verbeteren van het welzijn van senioren?

Niet-hiërarchische structuur:

17. Hoe belangrijk is het dat de bewoners allemaal een stem hebben in de besluitvormingsprocessen?

18. Wat is het voordeel van een niet-hiërarchische structuur (dat alle bewoners een stem hebben)?

19. Hoe draagt deze niet-hiërarchische structuur bij aan het welzijn van de senioren?

Overig:

20. Wat is volgens u de toekomst van co-housing?

21. Ben ik nog iets vergeten wat u graag zal willen toevoegen?

Axial coding	Open coding	Explanation of when the open code or axial code is used	Quote from the data illustrating the open code for the axial code
Community feeling	Importance of co-housing	Wanneer de tekst gaat over waarom co-housing belangrijk voor mensen kan zijn.	"Bij die vriendin en in die situatie van die co-housing. Dat was nou net voor hem de ideale omgeving om ervoor te zorgen dat hij niet vereenzaamde dat hij voldoende ging drinken en allemaal van dat soort zaken dus gegeven zo'n individu is een vorm van co-housing een heel belangrijk iets." (INT1)
	Social bonding	Wanneer de tekst gaat over het hebben van sociale binding met elkaar.	"Heel gelukkig zijn als je ergens toe behoort. Een familie, een netwerk, een buurt, een Community." (INT4)
Residential form	Broad understanding	Wanneer de tekst gaat over dat het begrip co-housing erg breed is.	"Co-housing is sowieso een waanzinnig breed begrip." (INT2)
	Shared living	Wanneer de tekst gaat over het hebben van gemeenschappelijke ruimtes	"gemeenschappelijke ruimtes waar ze verschillende dingen in doen. Dus bijvoorbeeld vergaderen, samen koken als het nodig is." (INT3)
Livability	Proximity of people	Wanneer het in de tekst gaat over het ontmoeten van mensen en onderdeel zijn van een netwerk.	"heb je een plek om te ontmoeten? Heb je bijvoorbeeld ook gewoon gemeenschappelijke ruimtes, zoals een tuin waar je mensen bewust en onbewust kan ontmoeten." (INT5)
	Surroundings	Wanneer het in de tekst gaat over hoe de omgeving eruit moet zien	"Dat je alles in de buurt hebt, dat je dus alles kunt bereiken wat je nodig hebt. Naar de huisartsen, apotheken, bibliotheken, winkels. En nou, je vervoer dichtbij." (INT3)

	Green	Wanneer het in de tekst gaat over hoe groen de omgeving moet zijn.	"Ik denk helemaal niet zozeer in een groen norm van zoveel bomen in de omgeving, enzovoort. Dat is ook allemaal belangrijk, en uiteindelijk moet je niet in, weet ik het, een vreselijk vervuild gebied wonen dat als je naast Tata Steel woont of zo." (INT4)
	Facilities	Wanneer het in de tekst gaat over voorzieningen die er moeten zijn.	"Dat er bankjes zijn." (INT3)
Spatial planning	Road safety	Wanneer de tekst gaat over de verkeerssituatie.	"Dat je kunt bewegen en dat de verkeerssituatie zodanig is dat je je daar kunt bewegen, zeg maar. Niet dat je elke keer je hart vasthoudt, omdat je daar niet kunt oversteken. Of nou ja, dat het in ieder geval ingesteld is op mensen die een ander tempo hebben dan de jonge mensen." (INT3)
	Mobility	Wanneer de tekst gaat over de mobiliteit van mensen en de toegankelijkheid van plekken.	"En dat gaat eigenlijk over nou ja is de woonomgeving toegankelijk hè? Dus zitten de veilige omstandigheden, zodat je ook nog met als minder mobiele ouderen er naartoe kan gaan." (INT5)
Designs that promote community building	Subspace	Wanneer de tekst gaat over dat ruimtes met elkaar worden gedeeld.	"de gemeenschappelijke ruimtes. Dat gaat dan over sporten. Dat gaat over een deelruimte, maar die deelruimte zijn we het ook al over gehad." (INT2)
	Community design	Wanneer de tekst gaat over het ontwerp van het gebouw en de gemeenschap.	"En dan is het fysieke kenmerk van het gebouw zodanig dat daar waar het interessant is om elkaar te ontmoeten, namelijk in de keuken en in de huiskamer dat zijn gedeelde voorzieningen en waar het wat minder

			interessant is om elkaar te ontmoeten, de badkamer, het toilet. Dat zijn privé voorzieningen." (INT4)
	Ages mix	Wanneer de tekst aangeeft dat het goed zal zijn om jong en oud samen te hebben in een woonvorm.	"door jongeren en ouderen door elkaar in de cohousing te doen, dus ouderen kunnen koken voor jongeren, maar jongeren kunnen weer de ouderen helpen. Ook op een stukje zorg. Wellicht. Ouderen hebben iets minder last van de betaalbaarheid. Jongeren hebben iets meer last van de betaalbaarheid. Nou, dan kan je zeggen, misschien wel als je naar een co-housing gaat in en je hebt de aanschafwaarde, maar je hebt ook een soort leefbudget nodig, nou, dan kan je best zeggen van nou weet je wat de ouderen betalen upfront iets meer en jongeren betalen misschien iets minder, maar de jongeren doen in in de werkzaamheden weer wat meer." (INT6)
	Hiking trails	Wanneer de tekst gaat over de wandelroutes die kunnen zorgen voor ontmoetingen met andere bewoners.	"bijvoorbeeld juist de uitdaging dat mensen een rondje lopen, hoe loop je dat rondje? kom je dan andere mensen tegen of lopen ze dat rondje achter elkaar? Dat kun je allemaal beïnvloeden en daarom is het ook zo leuk om dat met een omgevingspsycholoog te doen." (INT2)
	Self-reliance	Wanneer de tekst gaat over dat de zelfredzaamheid van mensen toeneemt	"Die mensen die willen eigenlijk helemaal niet zomaar uit dat huis en wat je vaak wel ziet is dat als ze eenmaal op een plek wonen waar ze

			uitgedaagd worden tot meer sociale cohesie, dan worden ze vaak gelukkiger en ze zijn langer zelfredzaam hè?" (INT2)
	Care	Wanneer de tekst gaat over het nodig hebben van zorg en deze zorg naar de mensen brengen.	"Laten we de verpleeghuiszorg ook kijken of we die naar mensen toe kunnen brengen, dus niet meer dat je naar een instelling gaat, en dan moet je misschien wel een aantal dingen waar een beroep doen op je buren, een beroep doen op mantelzorg. Ja, dan heb je eigenlijk de opening voor zeg maar, communitie vorming." (INT4)
	Cohesion	Wanneer de tekst gaat over het opbouwen van cohesie in een groep.	"We hebben daar gekozen voor kleine tuinen met een groot collectief gebied, wat weer niet te groot is hè? Dus wat niet teveel woning op zitten, maar wel een aantal waardoor er een sociale cohesie kan ontstaan tussen de directe omwonenden. Sowieso met je directe buren, maar ook in het achter gebied heb je contact met nog veel meer buren die wat verder van je af wonen." (INT2)
	Loneliness	Wanneer de tekst gaat over zich eenzaam voelen.	"Mijn vader is bijvoorbeeld 77. Mijn moeder was overleden en ik zag mijn vader echt helemaal vereenzamen, maar daardoor was hij, werd hij vergeetachtiger. Nou ging minder ondernemen. Nou, dan gaat de gezondheid achteruit, hé, werd steeds dikker." (INT6)
	Common stuff	Wanneer de tekst gaat over het delen van	"We kunnen ons ook voorstellen dat er straks een kleinere community is

		spullen in de gemeenschap.	die zegt, wij gaan, weet ik voor onze stofzuiger of onze boormachine of weet ik veel wat delen. Snelle manier waarop je samen moet overleggen van, oh heb jij hem nu dan pak ik hem straks. Dan heb je alweer even contact. Dat is heel simplistisch misschien maar dat zijn al de eerste stappen om mensen gewoon met elkaar in contact te kunnen brengen." (INT2)
	Meeting	Wanneer de tekst gaat over het ontmoeten van andere mensen en hoe deze ontmoeting kan ontstaan.	"Dus het ontwerp moet het ontmoeten faciliteren hè? Dus tegenkomen is het belangrijkste en het moet op een schaal en een sfeer zijn waar mensen zich ook senang bij voelen," (INT4)
	Solving loneliness	Wanneer de tekst gaat over het tegengaan van eenzaamheid, wat hier tegen gedaan kan worden.	"Eenzaamheid is niet alleen van ouderen, er zijn ook heel veel jongeren. Of nou ja, vrijgezellen mensen tussen de 35 en de 55 die heel eenzaam zijn. Dus eenzaamheid is gewoon een groter probleem. Wat je wat je met co-housing kan oplossen, maar je kan het ook nou middels ontwerp van openbare ruimte proberen op te lossen." (INT6)
Extensive communal facilities	Collective & private	Wanneer de tekst gaat over plekken waar je collectief met elkaar kan zitten en plekken die alleen privé zijn.	"Daar hebben we dus aan de voorkant, nou, die woningen zijn gericht op kleinere huishoudens. Dat zijn toevallig in dit geval wel grondgebonden woningen die hebben aan de voorzijde hebben ze daar ook een Brabantse stoep, dus zij kunnen of een Delftse stoep of een Groningse stoep in jouw geval en die mensen

			kunnen daar gaan zitten als ze dus willen socializen met omgeving, dan hebben ze een woning. Dan hebben ze achter die woning, hebben ze een compacte eigen buitenruimte en terras die weer overloopt in die collectieve tuin en zij kunnen dus echt kiezen. Ga je voor volledig publiek zit je aan de voorkant, ga je op je terras zitten, zit je echt privé. Zit je in je woning ben je per definitie privé zit je in de collectiviteit, dan ben je aanspreekbaar en dat is volgens mij heel belangrijk dat je dus mensen gradaties biedt." (INT2)
	Home	Wanneer de tekst gaat over het hebben van een thuis.	"In plaats van een huis een thuis is natuurlijk heel erg van belang. In alle leeftijden dus, dat noemen ze in het beleidswereld hè? We moeten niet meer over huizen hebben, maar over thuis." (INT4)
	Accessibility	Wanneer de tekst gaat over de toegankelijkheid van de woonomgeving.	"En dat gaat eigenlijk over nou ja is de woonomgeving toegankelijk hè? Dus zitten de veilige omstandigheden, zodat je ook nog met als minder mobiele ouderen er naartoe kan gaan. Eigenlijk wat ze noemen, Woon leef concepten, dus meer de conceptuele woningbouw doen, waar vooral heel veel vanuit de nabijheid van voorzieningen wordt gedacht. Dus hè? Is de apotheek in de buurt, is de de supermarkt in de buurt, heb je een plek om te ontmoeten? Heb je bijvoorbeeld ook gewoon

			gemeenschappelijke ruimtes, zoals een tuin waar je mensen bewust en onbewust kan ontmoeten." (INT5)
	Community spirit	Wanneer de tekst gaat over de verbondenheid binnen een groep, het zijn van een gemeenschap, activiteiten met elkaar ondernemen en het ondersteunen van elkaar.	"Dus je moet ook investeren in de relatie met je buren om op een gegeven moment te kunnen zeggen, kan je een boodschap voor me meenemen of kan je mij helpen met dit of dat hè? Dus het doet iets maatschappelijks in het welzijn van de Nederlanders dat we kijken naar instanties die voor mij een probleem oplossen naar mijn netwerk, mijn omgeving, mijn community. Waartoe behoor ik, en daar doe ik het beroep op een zorgvraag en dat is van invloed op het welzijn dat ik ervaar, dus als je ergens onderdeel van uitmaakt hè " (INT4)
	Consistency	Wanneer de tekst gaat over samenhang, het zijn en vormen van een gemeenschap.	"eigenlijk zitten we nu in een soort beweging terug naar omzien, naar elkaar, naar samenhang in de buurt en het is ook nodig. En dus heel veel van die voorzieningen die dus te maken hebben met het welzijn van ouderen, in dit geval waar je het over hebt. Die hebben te maken met een samenhang met anderen, dus je kunt het niet meer interpreteren als een individueel recht in mijn visie." (INT4)
	Socializing	Wanneer de tekst gaat over het hebben van interactie met elkaar en samen activiteiten ondernemen.	"Maar ik denk dat uiteindelijk als je terugbrengt naar onderdeel zijn van een netwerk en de nabijheid

			van mensen ervaren. Dat dat enorm bijdraagt aan welzijn, dus zelfs al ben je ziek en je zit in een verpleeghuis en er is iemand die in de zorg werkt die aandacht voor je heeft en even gaat zitten. En een deel van jouw levensverhaal aanhoort. Dat draagt enorm bij aan welzijnservaring van iemand die in een verpleeghuis zit." (INT4)
	Safety	Wanneer de tekst gaat over zich veilig voelen door het wonen in een gemeenschap.	"En, ik denk dat ouderen ook nog wel angst hebben voor wat als er iets gebeurt, en ik denk dat die angst ook voor een heel groot deel weg is, want ja, je kan toch iets meer voor elkaar zorgen."
Full residential management	Agreements	Wanneer het in de tekst gaat over het maken en hebben van afspraken binnen de co-housing.	"Wat er met die gemeenschappelijke ruimte kan, kan je daar ook zelf een feestje vieren, hoe ziet die betrokkenheid eruit hè? De verwachtingen over en weer? En dan heb je een soort bestuur of een werkgroep wat dat soort dingen allemaal regelt. Nou ja, dat hè, Als je meer mensen, gezinnen en huishoudens min of meer samenwonen voor een deel, dan moet je toch altijd afspraken maken." (INT3)
	Maintain	Wanneer de tekst gaat over het onderhouden van de gemeenschappelijke ruimtes	"Noudat je gemeenschappelijk bepaalt van hoe je dingen afspreekt en aanpakt bijvoorbeeld ook dingen als onderhoud, onderhoud van de tuin, onderhoud van het gebouw. Nou ja, heb je daar een potje voor? Is een Vereniging van Eigenaren nou dat

			kan. Het hangt er vanaf van wie die cohousing organisatie is, heeft de woningcorporatie dat opgezet of ben je allemaal voor een stukje eigenaar? Dan ziet het beheer er ook anders uit." (INT3)
	Entrepreneurship	Wanneer de tekst gaat over het ondernemen van dingen, zoals in de tuin werken, en zo je steentje bijdraagt aan de gemeenschap.	"daar wordt eigenlijk gezegd, we dagen jullie uit om mee te doen. Maar het moet niet. Dus en dat doen zij daar ook heel bewust, omdat als we zeggen, het moet, dan moeten wij gaan handhaven op dingen en dat willen we niet, want dan gaan we mensen juist weer remmen." (INT2)
	Appreciation	Wanneer de tekst gaat over waardering naar elkaar uitspreken voor iets wat je hebt gedaan.	"Nou dat wat je net noemde van dat het voldoening geeft en dat andere ook waardering uitspreken daarover, iemand kan heel goed koken, bijvoorbeeld of iemand met groene vingers heb je een moestuin ontwikkeld, zeg maar van dat ie dat je elkaar ook daarin over de bol aait af en toe of of waardering geeft. Dat dus dat je elkaar waardering geeft voor wat je doet of wat je ook gewoon ziet gebeuren." (INT3)
	Together	Wanneer het in de tekst gaat over het samen ondernemen van activiteiten of het maken van afspraken. Met elkaar de gemeenschap laten bestaan.	"Mensen samen iets laten doen, als is het een groente tuintje onderhouden, allemaal dat soort zaken dat is essentieel voor de saamhorigheid. Gemeenschappelijke taken." (INT1)
Non-hierarchical structure	Input	Wanneer het in de tekst gaat over je mening geven zonder dat je	"en dan luister ik gewoon van, nou jullie gaan met elkaar zitten en zeg maar

			meteen beslissingsbevoegdheid hebt.	hoe jullie je co-housing willen hebben en dan gaan wij dat proberen daarin te verwerken. Nou, dat kan bijvoorbeeld zijn inderdaad in de grote keuken, maar het kan ook zijn dat we juist 3 verschillende keukentjes en en woonkamertjes maken." (INT6)
		Control	Wanneer de tekst gaat over de autoriteit om beslissingen te nemen.	"De ervaring leert dat als je naar hofjes wonen kijkt bijvoorbeeld, dat soort concepten, dat de privéruimte beperkt kan zijn en dan dat er een vorm van collectiviteit is waar je ook nog zeggenschap over hebt. Dus als je dan zegt als collectiviteit nou ik wil daar een moestuin maken of juist niet. Ik wil daar een jeu de boel baan maken dat je zeggenschap hebt over een stukje collectiviteit. Waar je met elkaar kan zeggen wij vinden elkaar en wij willen wel met elkaar een jeu de boule baan of een andere setting andere ouderen die zeggen wij hebben precies dezelfde fysieke kenmerken. Er is een collectieve binnentuin. Laten we daar aardappelen verbouwen. Dus zeggenschap, en dat draagt ook bij aan welzijn." (INT4)
		Collective	Wanneer de tekst gaat over het gezamenlijke doel en het gezamenlijk bereiken van dit doel.	"En Iedereen doet daar zijn eigen ding, maar wel binnen die gezamenlijke. Je maakt een gezamenlijke droom en in die droom ga je aan de slag. Ja veel meer binding kun je niet hebben, dan heb je een gezamenlijke drijfveer, gezamenlijke

50

			doelstelling en dan kunnen mensen nog steeds heel verschillend zijn, maar dat maakt dan niet meer uit, hè? Want jij hebt een stip op de horizon waar je naartoe en dat is enorm interessant." (INT2)
	Community Formation	Wanneer de tekst gaat over individuen die samenkomen en een gemeenschapvormen en wat daarbij komt kijken.	"dat iedereen ook gehoord wordt en ook zijn stem laat horen over nou dingen die besloten worden, maar die juist ook gaan over dagelijkse dingen. Soms zou je de enige kunnen zijn die ergens voor of ergens tegen is en dat je dan ook bereid bent om je aan te passen aan de meerderheid." (INT3)

Appendix C: Interview transcripts