

PERCEPTIONS OF SOCIAL RELATIONSHIPS BY THE OLDEST OLD

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ABSTRACT

Given that the oldest old are the fastest growing population group worldwide, the importance of studies concentrating on them is evident. The promotion of health and well-being in very old age requires knowledge about the lives of the oldest old. Currently, the knowledge about social lives of this age group is limited, although the pivotal effects of social aspects of life for the well-being of older individuals are well-known. Furthermore, to gain detailed and diverse knowledge, the perceptions of individuals living in very old age need to be considered. Nevertheless, it is particularly this kind of studies that we are currently lacking.

This study aims at deepening the understanding of informal social relationships of the oldest old by studying the perceptions of home-dwelling nonagenarians about their social relationships. Altogether 44 life-story interviews, conducted in 2012 as part of the Vitality 90+ study, were analyzed using qualitative content analysis.

The analysis yielded manifold information about social relationships in very old age: experienced restrictions, significance and valued aspects. Most of the experienced restrictions, such as death of loved ones and health, could not have been controlled by the nonagenarians. Significance of social relationships was related to company provided by the social network, help received and given, feelings of joy and grief, and lifelong lessons provided by social relationships. Furthermore, nonagenarians valued having social relationships and not being lonely. Valued aspects were also harmoniousness of relationships, being social and acknowledging other people.

This study reveals multiple aspects of informal social relationships of the oldest old, and indicates that although multiple restrictions are encountered, social relationships still play an important role in the lives of the oldest old. More qualitative studies concentrating on the social relationships of the oldest old are needed to further enhance our understanding and also to bring out the perceptions of the oldest old individuals in less advantaged positions.

Key words: Oldest old, nonagenarian, social relationships

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ABBREVIATIONS

ADL Activities of daily living

GT Gerotranscendence theory

I Interviewer

M Man

P Participant

QCA Qualitative content analysis

SOC Selection, optimization and compensation

SST Socioemotional selectivity theory

UN United Nations

W Woman

1. INTRODUCTION

Our knowledge about the social relationships of the oldest old is limited. Despite the fact that populations all over the world are aging rapidly and that there is strong evidence of social relationships being important for older individuals and their health and well-being, the information about the social relationships of the oldest old from the viewpoint of the oldest old themselves is almost non-existent. Consequently, our existing knowledge about social relationships in very old age is strongly based on quantitative research. Qualitative approach is, however, needed to reveal new aspects of the factors that are perceived as important for the well-being of older persons. This is essential in order to be able to promote the health and well-being of the older population.

According to the United Nations ([UN] 2015) the growth of the older population in the next decades will be unprecedented. Worldwide, the growth of the number of those aged 60 and over is rapid. However, the number of the very old persons, meaning those aged 80 years and over, is growing even faster. In 15 years there is projected to be an increase of 61 percent, from 125 million very old persons in 2015, to 202 million in 2030. By 2050 the number of the very old will reach over 400 million. As this very old age is commonly conceptualized as a gloomy time of life (e.g. Baltes & Smith, 2003), the future might seem worrisome. However, in order to better understand life in very old age, studies are needed, that do not only look for the restrictions of very old age, but also the possibilities (Tanner, 2016).

Numerous studies have investigated factors affecting the health and well-being of older persons and these studies have also found social relationships to be a pivotal factor. These studies have shown, for instance, that social engagement remains an important determinant of physical health in old age (Cherry et al., 2011), that social relationships can have protective effect against mortality (Giles, Glonek, Luszcz & Andrews, 2005) and that they are associated with cognitive performance (Gow, Corley, Starr & Deary, 2013), life satisfaction (Berg, Hassing, McClearn & Johansson, 2006; Okabayashia & Hougham, 2014), attachment to live (Jopp, Rott & Oswald, 2008), and considering

oneself disabled (Kelley-Moore, Schumacher, Kahana & Kahana , 2006). Furthermore, social relationships have been found to be one of the most important aspects for the well-being and successful ageing of the oldest old (Nosraty, Jylhä, Raittila & Lumme-Sandt, 2015; Nosraty, Sarkela, Hervonen & Jylhä, 2012; von Faber et al., 2001). There is no doubt that social relationships play an essential role in the lives of the older and oldest old persons.

While considerable attention has been devoted to studying associations between social relationships of older persons and various other phenomena, much less attention has been paid to the perceptions of the oldest old themselves about their social relationships. However, studying older people's own perceptions is essential, since quantitative measures are not always able to capture the essence of the studied subject, as the study of von Faber et al. (2001) demonstrates. In their study, they found that when the opportunity was given for the elderly to tell their perception of the matter in their own words, a whole new perspective to the studied subject was found that could not have been detected using only quantitative methods.

Consequently, more qualitative studies are needed to gain better understanding of the complexity and diversity of social relationships in very old age and to learn more about factors affecting the health and well-being of this fastest-growing age group. The primary focus of this study is on deepening the understanding of informal social relationships of home-dwelling nonagenarians, also referred to as the "oldest old", by using life-story interview data, which is analyzed using qualitative content analysis. This study provides diverse information about social relationships of the oldest old, including information about perceived limitations for social relationships, the significance of social relationships in the lives of the oldest old and valued aspects of social relationships in very old age. Thus, this thesis provides new knowledge that can be used to understand the social needs of the very old that is needed in order to promote their health and well-being.

2. LITERATURE REVIEW

In this review of the literature, first, some perspectives to defining ageing and old age are introduced in order to create an understanding of old age as a multidisciplinary and diverse concept that is not only tied to the chronological age or physical characteristics of the person, but also strongly molded by social constructions. Furthermore, it can be argued that old age cannot be studied without considering individual life-experiences and the social context in which the individual lives in. Additionally, an idea of young-old and old-old age is introduced.

Now that people are living ever longer, the interest in knowing how to live a good old age also increases. In the second chapter, some theories of successful ageing are introduced and studies of successful ageing among the oldest old reviewed. In this chapter, it is argued that successful ageing of the oldest old might be different from the most often used models and that social aspects of life play an important part of good old age in very old age. In addition, some critique of the concept of successful ageing is shortly introduced.

Finally, the third chapter introduces studies about social relationships in very old age. It is self-evident that living to very old age causes changes to one's social relationships and social roles. Experiencing loss in social relationships is natural in very old age as a consequence of outliving the spouse or friends. Therefore, also feelings of loneliness can occur. Nevertheless, gains in social relationships are also possible even in very old age and there are also many ways for the oldest old to stay socially connected. As the amount of qualitative studies concentrating on the social relationships of the oldest old is almost non-existent, this chapter also underlines the need for more qualitative studies about the social relationships of the oldest old.

2.1. Perspectives to ageing and old age

Being old or becoming old are concepts that, at first sight, seem very comprehensible. However, deeper immersion in the subject reveals, that old age and ageing are highly

multifaceted concepts that lack comprehensive definitions. Recently, a lot of attention has been paid to the ageing of the populations. The shift from high fertility and high mortality to low fertility and low mortality – the “demographic transition” – has led to lengthening life-expectancies and reshaping of the age structure (UN, 2001). In 2050, there will be already 2.1 billion people aged 60 and over. (UN, 2015.) Furthermore, in 2050, for the first time in history, the number of older persons, aged 60 years and older, will exceed the number of younger persons under the age 15. A progression like this affects all facets of human life from economic growth, labor markets and taxation, to health care, family composition and intergenerational equity. (UN, 2001.) However, ageing is much more than just population ageing and viewpoints on old age much more diverse than this, rather challenge-focused, perspective. This chapter aims at providing some perspectives to these concepts, highlighting their multidimensionality and bringing out the different conceptualizations of young-old and old-old age.

Definitions of old age are manifold. Traditionally, the threshold for old age has been 60 or 65 years. Nevertheless, this threshold age is rather arbitrary and relates more to social welfare entitlements in Western industrialized countries than some rational theoretical criteria (Victor, 2010). Furthermore, due to lengthening life-expectancies and the fact that the number of the very old (aged 80 years and over) is increasing most rapidly in the world (UN, 2015), it might be reasonable to argue, that there is not only one old age, but rather a variety of old age (Tanner, 2016). The concepts of third age and fourth age make a distinction between young-old and old-old age, that is, those individual who are old and those who are oldest old.

However, the distinction between, and the definitions of, third and fourth age, or the old and the oldest old, are not straightforward. There has been proposed to be two ways to make a distinction between third and fourth age. The first is a population-based model, which suggests the transition between the third and fourth age to be the chronological age at which 50 % of the birth cohort are no longer alive, meaning that in developed countries fourth age would begin at the age of 75–80 years. Alternatively, the transition could be defined as the age at which 50 % of the population who attained 50 or 60 years have died subsequently. According to this, fourth age would begin at 80–85 years in developed countries and around 85 years is also the definition of fourth age currently used in empirical research based on developed countries. The second way to make the

distinction, the person-based model, aims to estimate the maximum life span of a given individual and not the average of the population. Taking into account the present-day evidence and excluding specific illnesses that prevent a longer life, an individual maximum life span can vary between 80 and 120 years, meaning that individual transitions to fourth age could begin at very different ages, ranging from 60 to 90 years. (Baltes & Smith, 2003.)

In the distinction presented above, being part of third or fourth age is defined based on the chronological age of a person. Additionally, old age can be approached from the bio-medical point of view, which defines old age based on the functioning of the individual's body and mind. From this perspective, ageing is viewed as the gradual accumulation of molecular and cellular damage leading to an increased risk of various diseases and a general decline in the capacity of the individual, ultimately resulting in death (World Health Organization, 2015). This idea is also reflected in third and fourth age, since, as Baltes and Smith (2003) state, these terms are also characterized by a considerable difference in their potential to sustain and improve the quality of life during old age. By this they refer to the two faces of human ageing: gains and losses. Gains refer to the good news of third age, the young-old age, referring to the ability of older persons to be effective and productive members of the society. The losses, on the other hand, refer to the fourth age, the oldest old, characterized by high prevalence of dysfunction, reduced potential to enhancement of function and psychological mortality threatening the features of the human mind and the chance to live and die in dignity. (Baltes & Smith, 2003.) Hence, third age is seen as a phase of active ageing, whereas fourth age as a phase of frailty and dependency (Tanner, 2016).

This focus on activity versus dependency can also be found in the definitions of the Dictionary of Public Health, where third age is defined through activity, as the “. . . period of life that follows retirement, associated especially with new vocational choices, and entering or re-entering courses of study or educational programs at the community college or university level” (Third age, 2007). The dictionary lacks the definition for fourth age, but defines oldest old as “those aged 85 years of age and older, many of whom have become dependent on others for assistance with activities of daily living. . . . Visual and hearing loss are common, and so is deterioration of mental function.” (Oldest old, 2007). Another gloomy definition of fourth age is that of Higgs and

Gilleard (2014, p.13), for whom fourth age does not represent any particular age group or stage of life, but is a state of “unbecoming”: a location that is “stripped of those forms of agency most valued by contemporary consumer society, namely choice, autonomy, self-expression and pleasure.” They see fourth age as characterized by the lack of agency, hence, they suggest that a person becomes a subject of fourth age when others determine that individual no longer being able to manage everyday life (Gilleard & Higgs, 2010).

In contrast to the previous views, Tanner (2016) argues for more nuanced conceptions of fourth age, which would not assume the disempowerment and marginalization of those in the fourth age, but would look for the presence of agency. She highlights not only seeing the restrictions of fourth age, but recognizing the ways individuals in the fourth age still are able to lead a meaningful life, by exercising agency in their own way. As, in some areas of life, the opportunities to exercise control diminish, value of those areas of life, in which the person still can exercise agency, increase. (Tanner, 2016.) Furthermore, studies suggest that older individuals living in, or approaching very old age realize and accept the realities of their lives, including the dramatic changes happening, but are still able to exercise agency and maintain their sense of self and their dignity of identity. Social relationships play a vital role in this, since they give support and help to the older persons and, through respectful and attentive interactions, help to maintain their dignity. (Lloyd et al., 2014.) Moreover, it was found, that with the help of their social relationships, the older persons were able to maintain their capacity for autonomous decision making and could continue to be themselves and to maintain social life despite bodily decline. (Lloyd et al., 2014; Tanner, 2016.) Thus, although the presence of illnesses and declined ability to function are reality for persons living the fourth age, that is, for the oldest old (e.g. Helminen et al., 2012; Jylhä, Enroth & Luukkaala, 2013), it can be argued, that these characteristics should not, and cannot, determine the whole experience of very old age.

Furthermore, it has been argued, that the experience of old age has been oversimplified and homogenized by the domination of bio-medical theories of ageing. Social approach to ageing can provide a broader view by offering an understanding of ageing and old age as socially constructed and, thereby, inevitably affected by social interaction and power relations in society. (Powell, 2013.) Additionally, it has been recognized that

ageing and old age cannot be studied in isolation from the person's earlier life-experiences (Dannefer & Settersten, 2010). Hence, a life course perspective can provide a wider understanding of ageing.

The life-course perspective acknowledges that ageing is not only based on changes in the human organism, but fundamentally dependent on the individual's social circumstances, opportunities and experiences over prior decades. It is argued, that growing old is powerfully shaped by individual life experiences that vary substantially across individuals, groups, and nations and are organized by social relationships and societal structures. Consequently, the process of ageing is not general, immutable or universal, and there is no "normal ageing". Apart from viewing ageing as a property of individuals, the life-course perspective also emphasizes that ageing is a property of social structure. That means, that ageing is socially constructed by social policy and cultural understanding. Government policy, professional expertise and culturally imposed definitions of reality create age norms which, in turn, create expectations for people in a society about (old) age, for instance, about "age appropriate" actions and roles. (Dannefer & Settersten, 2010.) The life-course perspective views ageing from a wide standpoint recognizing the individual experiences, social relationships and societal norms as fundamental for the understanding of ageing.

It is noteworthy, that instead of the rather unilateral definitions of old age as the number of years a person has lived or as the functioning of the body and mind, a wider perspective of ageing as the cumulation of individual life experiences affected by social ties and societal structures can provide more wide-ranging understanding. The recognition of the experience of ageing among individuals as highly divergent, and not tied to any universally applicable pattern, also fosters the view of older persons primarily as individuals and not a homogenous group, regardless of their age or life stage. The aim of this chapter was to illuminate ageing and old age as multidisciplinary and diverse concepts and point out some problems in their definitions. The next chapter will turn to the idea of "successful ageing" in attempting to further illuminate the concept of ageing.

2.2. Successful ageing and the oldest old

When studying ageing and old age, an important, and interesting, question is not only, what is ageing, but also what is good ageing. Especially now that people are living ever longer, the question of how to live a good old age, or how to age “successfully”, raises interest. This chapter introduces some approaches to successful ageing and reviews studies conducted among the oldest old in order to find out the meaning of social relationships for the good ageing of the oldest old.

The definitions of successful ageing can be divided into three groups: biomedical theories, psychosocial approaches and lay views. Biomedical theories concentrate on optimization of life-expectancy and minimizing physical and mental deterioration and disability as the basis of successful ageing. (Bowling & Dieppe, 2005.) One of the most well-known models of successful ageing is the model of Rowe and Khan (1997), in which they suggest that successful ageing consists of three components: low probability of disease and disease-related disability, high cognitive and physical functioning capacity and active engagement with life. However, regarding only disease-free older persons as successfully aged is rather unrealistic for most older persons (Bowling & Dieppe, 2005).

Psychosocial approaches to successful ageing emphasize life satisfaction, social participation and functioning, and psychological resources as key factors for successful ageing. Satisfaction with one's past and present life and continued social functioning are one of the most often proposed domains of successful ageing. Psychological resources for successful ageing include a positive outlook and self-worth, self-efficacy or sense of control over life, autonomy and independence, and effective coping and adaptive strategies. (Bowling & Dieppe, 2005.) Selection, optimization and compensation theory (SOC), socioemotional selectivity theory (SST) and gerotranscendence theory (GT) are theories that try to explain, each in their own way, how successful ageing can be achieved. These theories are shortly explained next.

Selection, optimization and compensation theory (SOC) suggests that successful ageing is a process of continuous adaptation (Freund & Baltes, 1998). By using selection, optimization and compensation, older people can actively cope with the losses they

encounter, rather than passively accept those (Gondo et al., 2013). Selection refers to choosing goals and optimization to allocation and refinement of resources to accomplish goals. Compensation refers to the substitutive processes that are needed when confronting loss of resources. (Freund & Baltes, 1998.) In other words, because people have limited resources to begin with (e.g. time), they need to choose goals they want to pursue, allocate their existing resources to achieve their goals and, when experiencing a loss of resource, use compensative resources to be able to continue pursuing their goals. As a consequence of this, regardless of physical decline, a certain level of performance and psychological well-being can be maintained (Gondo et al., 2013; Freund & Baltes, 1998).

Socioemotional selectivity theory (SST) also suggests adaptation to be the basis of successful ageing. In this theory, it is suggested that the selection and pursuit of social goals is influenced by the perception of time: when time is perceived as open-ended, people prioritize goals related to knowledge, and when they perceive time as limited, they prioritize emotional goals. Thus, there are age-related differences in social goals. When people are old, that is, perceive time as limited, they become more present-oriented instead of future-oriented, focusing on experiences occurring in the moment, and therefore, are likely to pursue goals related to emotional meaning and emotional satisfaction. This is reflected in social relationships, leading to the preference of familiar social partners in order to ensure predictability and positivity of emotions and emotional quality of social interaction. SST argues, that reduced social contact in old age would not happen due to age-related losses or emotional withdrawal from social life, but due to older persons themselves being active agents, constructing their social worlds to match their social goals. (Carstensen, Isaacowitz & Charles, 1999.)

A very different approach to those presented above is the the gerotranscendence theory (GT). In GT, disengagement, rather than active adaptation is suggested. Tornstam (1997) suggests that the very process of living into old age is characterized by a general potential towards gerotranscendence. He defines gerotranscendence as “a shift in meta-perspective, from a materialistic and pragmatic view of the world to a more cosmic and transcendent one, normally accompanied by an increase in life satisfaction.” (Tornstam, 1997, p. 143.) This theory proposes that when people age, they encounter changes in the way they perceive themselves, others and the world. Three domains comprising

gerotranscendence have been identified: the cosmic dimension, the self and social and personal relationships. In short, cosmic dimension refers to existential changes, such as change in the perception of time, the self to changes in the view of the present self and the self in retrospect, and social and personal relationships to changes in that aspect, such as change from wider and more superficial relationships to narrower and deeper ones. (Tornstam, 2011.)

It has been discovered, that lay views of successful ageing are manifold, and only partly captured by theoretical models. Lay definitions include mental, psychological, physical, and social health; functioning and resources; life satisfaction; having a sense of purpose; financial security; learning new things; accomplishments; physical appearance; productivity; contribution to life; sense of humor; and spirituality. (Bowling & Dieppe, 2005.) Thus, lay views can bring out the complexity of successful ageing, since it has been found that older adults perceive multiple aspects of life important for their successful ageing, and, additionally, are heterogeneous in their perceptions (Kinght & Ricciadelli, 2003). Moreover, different dimensions of well-being perceived as important for the successful ageing are also integrated, suggesting that all of the different dimensions together play a crucial role in the successful ageing of older persons (Cherry, Marks, Bendetto, Sullivan & Barker, 2013).

Studies conducted among the oldest old suggest, that the viewpoint of successful ageing merely as absence of disease and disability is problematic, since it would exclude especially the oldest old. For instance, in their study, Nosraty et al. (2012) studied successful ageing among nonagenarians using a definition of successful ageing as consisting of a physical component (diseases, physical functioning and vision and hearing), psychological component (depression, living will and self-rated health) and social component (meeting children and telephone use). When considering only the physical component, they found that, according to different criteria, only 5.3 to 25.2 percent of nonagenarians were ageing successfully. When considering the psychological component, the prevalence of successful ageing was already higher, 20 percent. However, when considering the social component, the prevalence of successful agers was significantly higher, 75 percent. This suggests that when considering successful ageing of the oldest old, emphasis on disease and disability may not be very relevant compared to social aspects.

Another study, studying different dimensions of successful ageing and their connection to well-being among the oldest old, found high levels of social resources and low levels of physical impairment being significantly associated with well-being among the oldest old. A pivotal influence of social resources was detected. In addition, social resources played an important mediation role in the relationships between cognition and well-being and education and well-being. In coherence with SST, the researchers suggest the positive effects of social resources to result from interaction with relationships that offer high levels of emotional benefits. (Cho, Martin & Poon, 2015.)

A qualitative study about nonagenarians' perceptions about successful ageing also problematizes the idea of successful ageing as merely the absence of diseases. The researchers found that, although overall health and functional and cognitive ability were perceived important for good ageing, the participants did not talk about the absence of disease. More important, than not to have any diseases, was being pain free and able to carry out daily tasks. Furthermore, social and cognitive aspects were an important aspect of good ageing among nonagenarians and they seemed to be more important than physical health. (Nosraty et al., 2015.) Similarly, another qualitative study among 85-year-old Netherlanders found that social functioning was perceived as essential for well-being and successful aging. Although there might have been decrease in social activity due to physical dysfunction, social contacts continued to be important and influenced positive self-esteem. Overall, social contacts were regarded as the most important condition for well-being and successful aging. (von Faber et al., 2001.) These results also support the idea of social aspects being more important to good old age among the very old compared to physical aspects.

Social factors have also been found to play a more important role in valuation of life among the oldest old compared to health factors. Although not a measure of successful ageing, valuation of life measures the experienced worth and active attachment to one's life, and, therefore, attempts to measure, what makes live valuable and worth living in old age. A study found that valuation of life was associated with sociodemographic, social and health factors among both young-olds (65–79 years) and old-olds (80–94 years). Compared to sociodemographic factors, social resources, meaning frequent general social contact, phone calls and having contact with young adults outside the family, were more strongly related to valuation of life. Furthermore, there were

differences among young-olds and old-olds: health factors were substantially related to attachment to life among young-olds, but their importance seemed to decrease in very old age. Indeed, among the old-olds, phone calls emerged as a significant social predictor for valuation of life instead of health factors. (Jopp, Rott & Oswald, 2008.)

Although many studies have found the importance of social relationships for successful ageing of the oldest old, one study found out that although the younger-old participants talked about their social relationships as an important factor for their longevity and successful ageing, the oldest old participants did not. The responses of the nonagenarians were rather solitary and personal, emphasizing peace of mind and absence of anger. This finding would show consistency with the notions of gerotranscendence. The researchers suggest, that, the oldest old may have outlived their emotionally significant social relationships and it would, therefore, be unrealistic for them to enhance their emotional well-being through social relationships, as is suggested in SST. Consequently, introspection, avoidance of anger and focus on contentment would be the way to maximize their daily emotional experience. (Cherry et al., 2013).

Lastly, an important notion must be made about the limitations of the concept of successful ageing. In trying to eradicate ideas of older persons as sedentary and unproductive, the creation of the concept of successful ageing has also created a paradigm that older adults must remain active and fully productive members of society, and, thus, has established an idea of successful ageing as a choice. However, controlling the risk of disease, mental health and well-being, and the level of engagement with others can hardly be considered a choice an individual can make. Furthermore, attention needs to be paid on whether the conceptualizations of successful ageing represent the experience of ageing of a wide range of older persons, or only a selected group of them. Thus, when using the concept, the diverse social locations and contexts of older persons need to be taken into consideration. Furthermore, a more incisive conceptualization of successful ageing can be drawn by using definitions of successful ageing provided by the older persons themselves, rather than accepting the definitions given from the outside. (Dillaway & Byrnes, 2009.)

Different approaches to successful ageing also emphasize different factors and different strategies to achieve successfulness in ageing. It is important, however, to take into

account the limitedness of different definitions and acknowledge the importance of older persons' own views. Although also differing views were identified, many findings of the studies reviewed here point to the importance of social relationships in good, or successful, ageing of the oldest old, even when studying older persons' own perceptions. This would indicate that social relationships are significant for the oldest old and are, therefore, a relevant subject of further investigation. The next chapter will closer examine what social relationships are like in very old age.

2.3. Social relationships in very old age

The beneficial effects of social relationships for the health and well-being of human beings are well-established. For older people, the importance of social relationships is connected to the increasing evidence of social relationships helping individuals prepare for, cope with and recover from many of the changes associated with ageing (Antonucci, 2001). This chapter looks into the social relationships of the oldest old, attempting to bring out different aspects, including challenges and possibilities, of social life in very old age.

A number of studies indicate the importance of social relationships for the health and well-being of very old individuals. Still in very old age, social engagement was found to remain an important determinant of physical health (Cherry et al., 2011). In addition, quality of social networks was found to be significantly associated with life satisfaction in both men and women among persons aged 80 and over in Sweden, and, among all of the studied factors, it turned out to be the most influential. Particularly the quality of social network was found to have an effect and the frequency of social contacts was not. (Berg et al., 2006.) Among Japanese elders aged 64 to 80, those who had frequent conversations with their spouse, more interaction with friends, and female elders having more children, showed lower levels of depressive tendency and higher levels of life satisfaction (Okabayashia & Hougham, 2014). Independent of their health status, those older persons – aged 72 or older – with more living children, satisfactory social life and many companions to call upon were found to be less likely to consider themselves as

disabled. Over four years, despite existing health problems and limitations, positive social integration slowed the rate of acquiring the disability label. In contrast, negative changes in size or satisfaction with social network was found to accelerate the process of labeling one-self disabled. (Kelley-Moore et al., 2006.)

The convoy model provides a conceptualization of social relationships. It suggests that an individual is part of a dynamic network, a convoy, that moves through time, space, and the life course. Over the life course, the individual changes, grows and develops, and the situations in which the individual lives, change. This dynamic aspect of social relations is reflected by the convoy: in response to both internal and external events, people are added to and subtracted from the convoy and move in and out of it. Hence, the convoy remains responsive to the changing needs of the individual. The model suggests, that the convoy members provide a protective base, that, by allowing the individual to optimally grow and develop and successfully meet the challenges of life, leads to better mental health and less psychological distress. The protective base is both objective and subjective, referring to the network size and practical help provided by convoy members, and the support and the quality of relationships perceived by the individual. (Antonucci, 2001.) By using this conceptualization of social relations the convoy model can be argued to provide a multidimensional perspective to the study of social relations. For instance, considering only the quantity of relations, defined as the number of contacts or ties an individual has with other people or organizations, has proved not to be a sufficient way to approach social relations in studies. Although, quantity of social relations has importance, the quality of relationships has been found more predictive of most outcomes, such as mortality and physical and mental health. (Antonucci, Ajrouch & Birditt, 2014).

Nevertheless, characteristic for the social convoys of the oldest old is that they tend to be restricted. In their study, Fiori, Smith and Antonucci (2007) studied network types among older individuals. They found that the oldest old (85 years and older) were overrepresented in the restricted network types, meaning that they were often unmarried (mostly widowed), had small networks, below average contact with friends or family and low activity involvement. In addition, they reported below average levels of emotional support and relationship satisfaction, or alternatively, reported below average levels of emotional support, but were still relatively satisfied with their relationships.

Oldest old were also overrepresented in the friend-focused-supported network type, meaning that they reported having relatively frequent contact with friends and receiving above average levels of emotional and instrumental support.

When studying loneliness among persons aged 70–80 years, it was found that the participants experienced loneliness due to “weakening social convoy” (Tiilikainen, 2016, p.125). This meant the reduction of the members in the social network of the participants for a number of reasons. For example, poor hearing, poor health and decreased ability to function of the older participants themselves and their network members restricted their possibilities to take part in social interaction, thus weakening their social convoy. In addition, death of loved ones, leaving friends and family behind when moving to another area, and frictions of parenthood, such as estrangement, were reasons for weakening social convoy and experiences of loneliness. (Tiilikainen, 2016.)

Findings of weakening social convoys in old age is no surprise, since in very old age one is likely to encounter challenges that affect one’s life in many ways. A study found that very old persons described experiencing functional, social and psychological challenges in their lives. Functional challenges, such as restrictions related to health and activities of daily living (ADL), were most often mentioned. Psychological challenges were mentioned by 40 % of the participants and were related to, for instance, loss of well-liked activities, but also social aspects, such as worrying about leaving loved ones behind. Social challenges were mentioned by 20 % of the participants and they were related to social issues, social loss and not being able to help loved ones. (Jopp et al., 2016.) The older people become, the more likely they are to experience the loss of age peers and the loss of the spouse. Thus, if all relatives and age peers have died, it may not be easy to find replacements to the social convoy. In addition, reduction in social activity and the ability to maintain social relationships may occur as a result of the incapacity of network members and the older persons themselves. (Dykstra, van Tilburg & De Jong Gierveld, 2005.) For instance, a follow-up study found that, at the baseline, 90.9 % of the older persons aged 75 years reported having a good friend to talk to, but after nine years, only 62.1 % reported having one. (Holmén, & Furukawa, 2002.)

Losses experienced in older age are likely to make older people susceptible to loneliness. Older age and many personal circumstances often experienced by older

persons, such as widowhood, living in an institution, chronic disease, comorbidity and problems with hearing and vision have been found to be associated with loneliness. (Jylhä & Saarenheimo, 2010). Among oldest old, functional challenges were associated with feelings of loneliness and also a marginal association between social challenges and loneliness was found (Jopp et al., 2016). Studies suggest that compared to middle-aged and young-old persons, loneliness is experienced more often among the oldest old (see review by Dykstra, 2009, also Luhmann & Hawkley, 2016). For instance, in a Swedish study, frequent loneliness (felt sometimes or often) was, in the first study period, reported by 49.3 % of the participants aged 85 to 95 years and over and it stayed relatively stable across the 10-year study period. Frequent loneliness was lowest among the youngest age group – those aged 85 years – and higher among the oldest age group (aged over 85), apart from the years 2000–2002. (Nyqvist, Cattan, Conradsson, Näsman & Gustafsson, 2017.) It is noteworthy, that the findings of Luhmann & Hawkley (2016) suggest, that interindividual variability in loneliness is also greatest among the oldest old. Thus, although loneliness is more prevalent among the oldest old, there are great differences between individuals in experiencing loneliness in very old age.

Nevertheless, losses, such as death of loved ones, can be experienced as a natural part of life, and therefore, being alone would not necessarily mean being lonely (Ness, Hellzen & Enmarker, 2014a; Ness, Hellzen & Enmarker, 2014b). Indeed, oldest old women living in rural area were found to accept their aloneness, feel comfortable and even enjoy being alone. Furthermore, despite restrictions, they were satisfied with life. (Ness et al., 2014a.) Although the oldest old men living in rural area also accepted their losses and were able to see new possibilities and meaning in their lives, they did not, however, appreciate being alone. For them, loneliness was due to their wishes for independence and not to burden their relatives or care providers (Ness et al., 2014b). Although social networks of the very old may be characterized by losses and restrictions, it is noteworthy that gaining social relationships in very old age is also possible. For instance, one can have a new partnership after widowhood or divorce, engage in a new commitment after retirement and experience increased interaction with children when grandchildren are born. (Dykstra, et al., 2005).

Furthermore, ageing does not mean becoming socially isolated. Although a negative association between age and network size was found, the patterns of losses and gains in

social relationships were found to vary between respondents indicating heterogeneity of ageing individuals. During the four-year follow-up, an upward trend was observed for the number of children, children-in-laws, siblings and other relatives in the network of older persons and the number of non-relatives and friends decreased. This would indicate an increase in the significance of the core of the network in older age. (van Tilburg, 1998).

The importance of support provided by social networks seems to increase in old age. Instrumental support received was found to strongly increase for the oldest participants in the van Tilburg's (1998) study. However, instrumental support given decreased and emotional support received and given increased for the oldest participants. (van Tilburg, 1998.) For centenarians, instrumental support provided by informal network members was found to be common. In a study, 83 % of the participating centenarians reported getting help from informal network members with some daily task. The majority (60 %) reported getting help from their children and those not having a child nearby were more likely to not receive informal help. Help received from grandchildren was reported by 16 %, from other relatives by a third, and from friends and neighbors by 12 % of the participants. Help with administrative tasks, such as dealing with paperwork and financial matters, was the most frequent type of help received, reported by little less than half of the centenarians. Help with ADL, doctor's visits and shopping, socializing and companionship, and work in and around the house were reported by about a third of the sample. Little less than a quarter also mentioned getting unspecified help "as per need". (Boerner et al., 2016.)

To my knowledge, the amount of studies describing the social relationships of the oldest old as perceived by the oldest old persons themselves is almost non-existent. One qualitative study, however, investigated the ways persons aged 95 and over stay socially connected. The researchers found out that for all of the participants, becoming older meant a significant change in social connectedness and in the number and type of social networks they had. These changes were due to many different factors, such as widowhood and loss of friends due to death and disablement. Nevertheless, there were many ways for the very old individuals to stay socially connected. It was discovered that relationships with family, friends and paid and unpaid help, as well as having hobbies and interests were ways to stay socially connected in very old age. An

important part of participants' social network was formed by contact with family members and friends who usually were younger than themselves. Also ways of maintaining social connectedness were found to have changed over time for some of the participants, telephone having become the main source of keeping in contact with others. (Neville, Russell, Adams & Jackson, 2016.)

Although the importance of social relationships for older persons is widely acknowledged, the social relationships of the oldest old have not yet been widely studied. There is especially a lack of qualitative research striving to gain an understanding of social relationships of the oldest old as experienced by the oldest old themselves. This knowledge is important, however, since older individuals' own perceptions can provide a more detailed and diverse perspective, as was found in the study of van Faber et al. (2001). This study aims at filling this gap by concentrating on the perceptions of the oldest old about their social relationships. The aim and research questions of this study will be introduced in the following chapter.

3. AIMS OF THE STUDY

The overall aim of this research is, by studying the perceptions of home-dwelling nonagenarians, to deepen the understanding of informal social relationships in very old age in order to better understand the social lives of the oldest old.

The research questions are:

- 1) What kind of restrictions to informal social relationships can living to very old age cause?
- 2) How are informal social relationships significant for nonagenarians?
- 3) What aspects related to social relationships do nonagenarians value?

4. MATERIALS AND METHODS

This chapter introduces the data used in this study, including details about the collection of the data and basic information of the participants. In addition, the method for the analysis of the data will be introduced and the course of the analysis of the data explained. Lastly, limitations and strengths of the study are considered.

4.1. Vitality 90+ study

The data used in this thesis originates from the Vitality 90+ study carried out in the city of Tampere, located in southern Finland. It is a multidisciplinary study focusing on longevity and the oldest-old. The major themes within the study are biological basis of aging, predictors of health, functioning and longevity, old age as an individual experience, and the need for and use of care and services. The data in the Vitality 90+ study consists altogether of mailed surveys with total population aged 90 and over in Tampere, face-to-face interviews, performance tests and blood samples. (Gerontology Research Center, n.d.) This study utilizes the life-story interview data from 2012 and uses qualitative approach.

4.2. Study subjects and data collection

In the year 2012 every fifth home-dwelling woman and man living in Tampere, Finland, and born between the years 1921 and 1922, thus, aged 90–91 at the time, were sent a request to participate in the interview. The request was sent to 99 women and 41 men of whom 25 and 20, respectively, gave a positive answer. The response rate for women was 25 % and for men 48 %. These 45 persons were interviewed in their own homes during the year 2012 within the time period from April to October. The collection of the interview data was approved by the Ethical Committee of local hospital district.

The interviews were conducted by three researchers and two medical students. The author of this study was not involved in the data collection. The shortest interview took 34 minutes and the longest 3 hours and 20 minutes. There were 9 interviews which took less than an hour, 24 interviews that took one to two hours, 10 interviews which took over two hours and two interviews lasting over three hours. The interviews were tape-recorded and transcribed. The data consists altogether of 45 interviews which were transcribed into 1073 text pages. One of the interviews was not included in the analysis of this study, because it did not contain descriptions of informal social relationships. Therefore, the data analyzed in this study consists of 44 interviews and 1049 text pages.

All the interviews were conducted using the same interview framework which can be found in appendix 1. First, the participants were asked to tell their life story from childhood to the present day. After that, questions about various topics, such as health, hobbies, retirement, everyday life and housing were asked. Questions about significant social relationships and caring for close relatives were also included along with questions about good old age, longevity and experience of life.

Along with the interview request, a questionnaire in the length of one page was sent to the participants asking about marital status, living arrangements, need for help and self-rated health. The responses to the questionnaire questions can be found in table 1. As can be seen, the majority of the participants were widowed, lived alone, had no need for help and rated their health as average.

Table 1. Basic information about the participants of the interviews (N=45)

	Men (n)	Women (n)	Total (n)
Number of participants	20	25	45
Marital status			
<i>married</i>	9	3	12
<i>widowed</i>	11	17	28
<i>unmarried</i>	1	4	5
Living arrangements			
<i>alone</i>	11	23	34
<i>with spouse</i>	9	2	11
Need for help			
<i>no</i>	12	12	24
<i>sometimes</i>	6	8	14
<i>daily</i>	3	4	7
Health			
<i>good/fairly good</i>	8	6	14
<i>average</i>	12	16	28
<i>poor</i>	1	2	3

4.3. Analysis of the data

A number of methods for conducting qualitative analysis can be identified. The selection of the method depends on the data, the aim of the study and the research question(s). In order to study participants' perceptions, data must be used, that allows the participants to tell their perceptions in their own words. Interviews are suitable for this purpose and, therefore, concerning the aim of this thesis, the life-story interview data is suitable for this study. Interview data can be analyzed using multiple different methods. For this study, qualitative content analysis (QCA) was chosen for a number of reasons. These reasons are related to the suitability of QCA in analyzing extensive interview data, to the nature of the research questions and the assumptions about reality (Schreier, 2012). Furthermore, QCA was identified as a suitable method for this study

as it allows the researcher, using inductive approach, to structure vast amount of data in a systematic and coherent manner (Elo & Kyngäs, 2008).

QCA is a suitable method for analyzing interview data, since it allows the examination of data from a specific viewpoint, helping to manage extensive amount of data. This means the researcher decides on the angle from which the data is examined rather than attempts to describe the data in every respect. Furthermore, concerning its approach on reality, QCA is often based on realist assumptions, that is, viewpoints that, first of all, assume that there is a reality out there and, second of all, assume that the material to be analyzed, such as interviews, represent this reality. For instance, one could assume that the experiences people describe in the interviews also represent the reality. One can compare this to constructivist assumptions, typically used in discourse analysis, in which one would assume that language does not represent reality, but contributes to the construction of reality. (Schreier, 2012.) As the research questions and the aim of this study indicate, this study aims at examining older persons' perceptions of their social relationships, that is, it aims to find out, what they say about their social relationships. Therefore, it is assumed that their descriptions represent reality and are, therefore, as they are, a valid object of study. Thus, this argues for the use of QCA in this study.

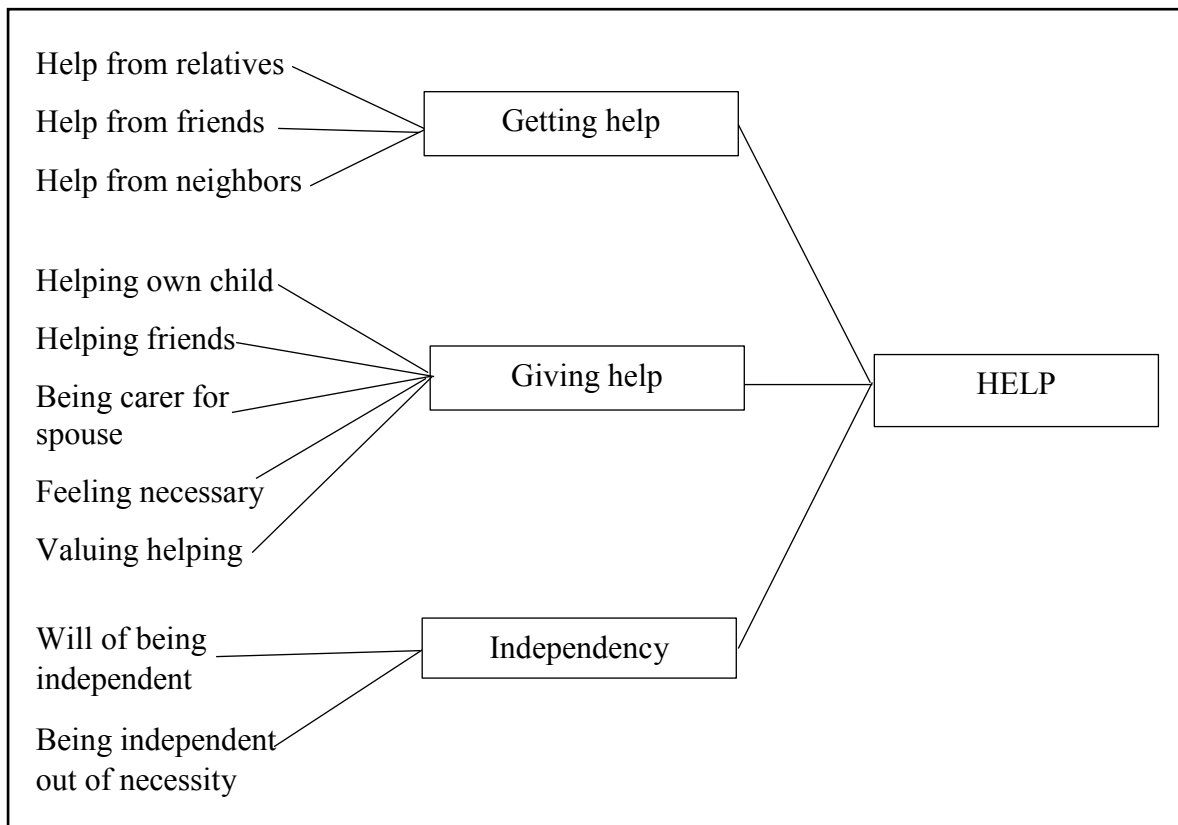
QCA can be defined as a “research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). The use of QCA, as any other qualitative method, always involves some level of interpretation, since data never has inherent meaning, but the meaning is attributed to the data by the recipients. Interpretation in QCA is not, however, arbitrary, thus, by applying a systematic method, it goes beyond the everyday understanding. (Schreier, 2012.) Two different approaches of QCA can be recognized: deductive and inductive. Deductive approach uses existing theory as the basis of analysis and inductive does not. Thus, in deductive approach categories are created with the help of existing theory or model and in inductive approach they are derived from the data. The purpose of the study determines which one of the approaches to use. As the knowledge of social relationships of the oldest old is rather scarce and fragmented, inductive approach will be used in this study. (Elo & Kyngäs, 2008.)

Although some main phases of both inductive and deductive QCA can be recognized, there are no exact rules for analyzing data (Elo & Kyngäs, 2008). Furthermore, the meaning and the use of concepts in research using QCA varies (Graneheim & Lundman, 2004). Nevertheless, preparation, organization and reporting can be recognized as three main phases. In the preparation phase, unit of analysis is chosen. (Elö & Kyngäs, 2008.) The unit of analysis refers to the object of study, which can be, depending on the study, for example, a person, an organization, a phrase or an interview as a whole (Graneheim & Lundman, 2004). Next in the preparation phase, the researcher reads the data carefully multiple times in order to create an understanding of the data as a whole. After this, the researcher turns to the organization phase, which, in inductive content analysis, means coding, creating categories and abstraction. In short, the researcher continues reading the data, coding the text at the same time. The codes are used to create categories that differ in their content, that is, similar codes are grouped. Finally, abstraction is made by grouping similar categories: similar subcategories are grouped as categories and these categories grouped as main categories. This process continues until no more categories can be grouped. (Elo & Kyngäs, 2008.)

In this study, the unit of analysis was chosen to be the whole interviews, as they are large enough to be considered as a whole, but small enough to be kept in mind as a context for meaning unit (Graneheim & Lundman, 2004). The analysis of the interviews began with reading all of the interviews carefully, looking for description about informal social relationships. Next, the interviews were coded by highlighting sections of text related to social relationships with bright colors. After coding all the interviews, a new document was created, in which the codes were listed. The next phase was organization, meaning, reading the coded sections carefully in order to create an understanding of the remaining data and to recognize differences and similarities between the codes. Based on the observations made in this phase, codes identified as similar were grouped in order to create different categories. Abstraction was made by grouping subcategories, thus, creating categories, and, finally, the main category. An example of the analysis process can be found in figure 1, in which similar subcategories are grouped to create new categories.

In the analysis process, three main categories were created: 1) Restrictions experienced in very old age, 2) Significance of social relationships, and 3) Valuing sociality, avoiding solitariness. These categories are presented and their content explained in the Results section.

Figure 1. An example of the analysis process: grouping categories



4.4 Limitations and strengths

Limitations and strengths can be identified in the collection and analysis of the data. Considering the participants of the study, it is noteworthy, that all of the participants lived in their own home or in sheltered housing and can be, therefore, considered being relatively healthy and mentally intact. No nonagenarians living in an institution were

participating in this study. It is also possible, that the nonagenarians who were willing to participate in this study represent overall a healthier and more active part of the age group, since those most vulnerable are perhaps not likely to have the resources to participate.

Considering the data collection, the author of this study has not participated in the collection of the data used in this study. The limitations related to interviews as a method for data collection are, however, recognized. These include issues, such as the possible effects of the class, gender and position of the interviewer to the process of the interview and the possibility of the interviewer to manipulate the interviewee to answer in a certain way (Taylor, 2005). However, the interviews were conducted by researchers and medical students who were aware of these possible ill effects of their role, and were, therefore, also able to minimize these effects. At the same time, the undeniable strengths of interviews as a data collection method are recognized. These include in-depth discussions of the studied subject and capturing the participant's own words (Taylor, 2005).

The amount of interviews, 44 considered in this study, can be argued to be rather extensive for qualitative research, and the vast amount of unstructured data to be analyzed by only one researcher can be seen as a limitation of this study. However, considerable amount of time was spent on familiarization with the data, and notes, including short summaries, were made of every interview. In this way, it was ensured that each of the interviews was given a sufficient amount of attention. However, the vast amount of data is also clearly a strength of this study, since it allowed the consideration of a variety of perspectives from people with different backgrounds and life circumstances.

Furthermore, considering the analysis of the data, limitations are related to the influence of the researcher to the analysis and interpretation of the data. Before the analysis of the data, the researcher had not reviewed literature related to social relationships of the oldest old individuals and, therefore, earlier knowledge about the studied subject did not influence the analysis. The researcher, however, has considered the possible influence of her presuppositions of the studied subject in the analysis and interpretation of the data. Therefore, careful consideration has been paid to analyze and interpret the data

consistently. The interviews and original expressions of the participant have been revisited multiple times during the analysis and interpretation in order to confirm the suitability of the coding and interpretations with the original expressions of the participants.

5. RESULTS

This chapter introduces the findings of the study, that is, categories created in the qualitative content analysis of life-story interviews of home-dwelling nonagenarians. The findings will be introduced category by category, explaining their content in detail. Quotations from the interviews are used to validate and explain the points made. All of the quotations were translated from Finnish to English by the author of this study. Three consecutive and spaced dots (. . .) in the quotation stand for an ellipsis. Furthermore, the letter I in front of the quotation refers to the interviewer, and letter P to the participant of the study. Letters M and W, located in parentheses after the quotation, refer to the sex of the participant, man or woman. The number after the letter is an identification number that separates the participants from another. For example, the marking W29 means that the participant is a woman, whose identification number in this study is 29.

Considering the anonymity of the participants, the names of the participants are not mentioned and also any other information that could lead in their identification, such as names of specific locations, friends or family members, have been removed.

5.1 Restrictions experienced in very old age

As one reaches very old age, one is likely to encounter restrictions in one's social life. This was evident also in the interviews of nonagenarians. The participants talked about factors in their lives that limit their possibilities to maintain, gain and enjoy social relationships.

When interviewing 90-year-old people, it is understandable, that death is a common theme. The interviewees told about deaths of several friends and relatives. Even though one would earlier in life have had a lot of friends, even large circles of friends, it could be, that they were now the only ones left, since all the others had already died. Additionally, also all relatives of some participants had already died.

I: Do you have close friends?

P: Not anymore. I've had a huge circle of friends, since I've had so many hobbies and been involved in everything. But everybody dies. When I look at those pictures... I counted the other day, when I was there tidying up and looking at those pictures. That one is dead, that one is dead. Everybody is dead, but the only one alive was me. Then I had those bosom friends, there might be 6–7 of them even. We always visited one another, drank coffee and so on, but all of them are already dead. There's none of them left. (W29)

Death of loved ones was also related to loneliness that was expressed in the interviews. It is natural, that the death of a loved one, especially a spouse, causes changes in one's life that can result in feelings of loneliness. For example the death of a spouse means that one does no longer have anyone to talk to at home or anyone to talk to about shared issues such as grandchildren.

P: It's been only a short time since my husband died and I don't have anyone to have a conversation with. Or someone, to whom I could talk about everything, like children. Or grandchildren or something. (W35)

I: What is most unfortunate in this old age?

P: It would be nice to sometimes talk in here, sometimes when you wake up. When you're not completely conscious, you can almost feel that your wife is lying next to you. That you ought to talk, but then you realize that you're all alone here. Indeed, there's no-one else here. (M5)

Nevertheless, death of loved ones was not always experienced necessarily a bad thing, but rather natural, as was described by one nonagenarian. When one loses loved ones, one also loses interest in social life. This would not, however, mean that one could not be content with life and all those other things that make life good in the moment.

P: When all friends and all loved ones are gone, you don't even have much interest in those things, or in outside life. I can be happy, when I have a good house and I feel good. (W29)

Both one's own and others' state of health could restrict social relationships. For instance, poor hearing could cause substantial difficulties for social interaction, since one cannot hear conversations and, therefore, take part in them, or talk on the telephone.

Poor eyesight could prevent one from moving around and taking part in activities. Because health problems restrict the ability to take part in social interaction and social activities, it was experienced, that they make one feel as an outsider and aside of everything. Also the health problems of friends restrict nonagenarians' social relationships, since some shared activities have to be given up or because communication might not be easy anymore.

P: This hearing of mine harms me so much, because I can't hear. A lady was talking to me with Ostrobothnian dialect, it's strange to me, and I couldn't hear. Sometimes I can't understand a word and it's so awkward. I can't take part in conversations. . . . I can't hear questions, I can't hear answers, only that when they burst out laughing. And I don't get to be part of it. (W7)

The ability to move around also restricted the possibilities to meet people. One interviewee was afraid that the possibility to ride taxi for free would be taken away, because that was his way to go out and see friends. Other interviewee found that taking part in association activities was difficult because of the difficulties in reaching the location. Another participant explained, how during wintertime, during very snowy and slippery weather, she cannot sometimes go out for weeks and chat with her neighbors outside, like during summertime.

Also one's own age was experienced as an obstacle for social relationships. Some found that in old age one cannot make friends anymore or get a new partner. One interviewee described how the circle of friends diminishes, because in older age one becomes more unsociable. However, an experienced problem was also the fact that when one reaches very old age, there are not many friends of same age left and the younger people might not be "on the same wavelength" (M44). Therefore, making friends in very old age was experienced as difficult.

I: How has life been on your own?

P: It's been OK. I've thought many times, that it would be nice to have a gentleman friend, but when you're old you can't take a new friend anymore.

I: Why not?

P: No, who would take a 90-year-old? I'm in good shape though, I could manage just fine. But still. (W32)

A few interviewees also mentioned how retirement has restricted their circle of friends substantially. One interviewee also felt that his own self-centeredness had caused him the lack of friendships

When relatives and friends lived far away, the communication was naturally restricted. Moving to another area, away from old friends and acquaintances, had also caused feelings of loneliness to one participant.

P: Here, we have gotten to know people in this building. It's still a little lonely though, when you don't have those proper longtime friends. (M37)

Some also experienced that relatives do not have time to visit them because they have their own hurries with their work and hobbies.

P: But that's how it is, my relatives, they have so much of their own activities. . . . They don't have time, those youngsters. I understand that they have their own bustles. (W31)

The nonagenarians, however, often perceived their relatives' busy lives as natural and expressed this matter in an understanding tone. Furthermore, the way the nonagenarians talked about their restrictions, was, overall, accepting, and it seemed that the nonagenarians mostly found the restrictions they encountered as an understandable part of their lives.

5.2 Significance of social relationships in very old age

This category consists of three sub-categories, named “company”, “help”, and “source of joy, grief and lifelong lessons”. In the following, the content of these categories is covered.

5.2.1 Company

Although there were factors restricting social relationships of nonagenarians, the participants also described having social relationships. Informal social networks of the

nonagenarians were formed by their children and grandchildren, other relatives, friends and neighbours.

In the interviews, it was common that children and grandchildren visit the nonagenarians' homes and it was rarely the other way round. Meeting with other relatives was not very common, but also in that case the relative would more likely be visiting the interviewed nonagenarian. Some also mentioned having friends that come to visit. Nevertheless, some also described going somewhere to meet friends or occasionally going out to eat with children and grandchildren.

Neighbours seem to be an important social contact for home-dwelling nonagenarians. Participants described meeting and spending time with their neighbours. Neighbours were met and chatted with in the garden of the housing cooperative and they could also be company for activities, such as taking walks, drinking coffee or for playing cards. Neighbours are a good source of company, because they are close and they are always present.

P: If you want to be alone, you can be alone. But when you go out there, you are always surrounded by friends. (W36)

Telephone was important for the maintenance of social relationships. Friends and relatives were often reached by telephone. Phone was the means to bring friends and relatives living farther away closer, since talking on the phone was the main medium of keeping in contact when the distance between the nonagenarian and the loved one was longer. Calling could be the way to maintain the relationship when it otherwise would be too hard or even impossible.

P: I have 80 years long friendship with this friend of mine, but she lives in a different city. Since we were 10 years old we have been friends – and we still are. She has lost quite a lot of her memory, but I call her quite often. That's a long friendship. (W8)

Taking part in association activities, such as veteran associations and spiritual clubs, was described as a way to meet people and make friends. Some described having made lifelong friendships in association activities earlier in their lives, but taking part in associations was also a way to meet new people and enjoy interesting events, such as presentations and trips.

I: What would you say are things that belong to good old age?

P: One has to have friends. Or some kind of a safety net, like that of my sisters mission circle. . . . Good friends are left behind when you leave a place. Then you have to learn all that again and make friends. My sister's friends have now become my friends, or I'm sort of an associate member in their mission circle." (W45)

As the previous quotation demonstrates, being part of an association can be important, because it provides one with social network that also offers security.

5.2.2 Help

Characteristic for the descriptions of the nonagenarians in the interviews were descriptions of getting and giving help. Help seems to be an important part of nonagenarians' lives, since help in everyday life chores from relatives, neighbors and friends was a common theme in the interviews.

Relatives, mostly children and grandchildren, helped nonagenarians with all kinds of everyday chores, such as cooking, cleaning, shopping and paying invoices. Some also described that their children and grandchildren help them with everything that they need. Besides describing of getting concrete help, nonagenarians also described, that children and grandchildren take care of them for example, by calling or visiting often just to make sure everything is all right. Some nonagenarians also described their friends helping them in everyday life by taking them shopping, for example. Neighbours mostly helped with outdoor chores such as clearing the snow and cleaning the garden, but some also described that their neighbours are there to help them with everything they need.

P: I haven't had any worries about those outdoor chores. And with all those other things as well, like I said, that neighbor of mine really gets it done. And helps me with everything I need help with. I've never had a situation where I would have been left helpless, thinking on my own that 'what am I going to do?' (M5)

The nonagenarians are not, however, only receivers of help, but they also give help to others. Some described helping of others as an important value in their lives.

P: To me, most important has been this life, adjusting to everything and helping in general. I've always been like that, I want to help those worse off. (W29)

Not many of the nonagenarians described giving help to their children, from which they received a lot of help, but to other elderly people who were in poorer state of health than they were themselves. Giving help was also related to the experience of necessity.

P: Think about it, even in this age I'm able to do something. It's blimey good for my self-esteem that I'm necessary to someone. And I can still do things, I'm not totally empty-headed. (W23)

Some interviewed nonagenarians were, or had been at some point, a carer for their spouse. Others described the hardships of taking care of a sick spouse, especially in old age. Others, on the other hand, described that taking care of a spouse at home is self-evident, and, even though it might be hard, it could be even more important than one's own well-being. Being able to take care of the spouse at home, so that one does not have to put the spouse in a nursing home, proved to be important.

P: Many people say that I should put him [sick husband] into some institution. But the way I see it, I won't put him out of home, for this is our shared home. I couldn't tolerate it if he would end up in some place, I don't bother about myself so much. For sure, it would be much easier for me, because this is not an easy life for me. It's been easier sometimes, but I will bear it as long as I'll bear this life. (W4)

Although nonagenarians often told about getting help for their daily chores, some of them also emphasized the importance of being independent. Being able to make one's own decisions and rule one's own life was described as an important way to stay independent and not to be patronized. On the other hand, a few nonagenarians also mentioned, how the lack of social relationships forces them to be independent, demand for help, and to take care of their errands on their own, because no-one is there to help.

P: Some people want lots of security, but I wouldn't want to be patronized in any way just yet. And my sons, they know for sure that their mother still runs her errands. And they mustn't interfere. I've said that when I start fooling around, then they can interfere. (W23)

P: I've known how to ask and demand all kinds of care for myself so that I would be able to manage on my own, because I don't have a single relative in this city. And all my acquaintances, my age group is already gone. Or they are in the same condition as I am, so there's not much help. (W6)

Thus, for others independence was a choice whereas to others, a necessity.

5.2.3 Source of joy, grief and lifelong lessons

The participants described that their own children and grandchildren have brought and bring joy and enrichment to their lives. Also the importance of friends and neighbours in making one feel happy was emphasized by some.

P: Well, certainly our retirement has been enriched by our grandchildren, we have 11 of them. And there was some looking after when the daughters quite easily brought them to us to be looked after. But somehow, it was richness. . . . When my grandson was little, he once said to me: 'Grandpa, now that I leave, you must feel so bored and you'll have nothing to do.' Yes, that was about right. (M3)

P: We have counted, we have about 3000 friends all around Finland. And always when you got to meet your friend and got hugs from a friend, indeed, it gave you pleasure. (M20)

Nevertheless, also unfortunate issues related to social relationships were described. Illness and death of a child and a disappointment caused by one's own child were issues causing grief. In addition, a few nonagenarians felt sad about their relatives not really remembering and keeping in contact with them, or about feeling that no-one really cares for them anymore. Other peoples' wrongdoings were also described by some, for example experiences of injustice and also mistreatment in childhood.

P: And well, then began that gloomy time. My father was a very quarrelsome man. Practically never did I hear a friendly word coming out of his mouth, he was always so bossy . . . That idea grew into my mind, when I always heard my father, he was the one who put it in there. When they were fighting, I could clearly hear those words: you are crazy. And in school age I started to think, if I really am crazy. Is there something wrong with me when they always say that again and again? (M5)

However, some nonagenarians also described about their childhood families' positive impact on their lives. Some described having learned or "inherited" their parents' sportiness or healthy lifestyle. For example, some described how their parents' abstinence from alcohol resulted in them being teetotallers their whole life too. On the other hand, also bad experiences of parent's drinking were the reason to become a teetotaller. Memories of happy childhood and loving parents can make one feel happy still in very old age. A couple of nonagenarians also brought out the importance of their grandmothers in their lives because of what they taught them about religiosity and attitude towards death.

P: I'm so grateful that I had such exemplary and wonderful parents. They always encouraged to do good and gave me good guidelines in life, indeed. (W30)

I: What do you think is the secret of your longevity?

P: At least one thing is that my father was eager to exercise outdoors, and we children all inherited that hobby. (W45)

However, one can also learn a whole new attitude towards life in very old age, as was described by one interviewee who had learned a lot from his neighbour.

5.3 Valuing sociality, avoiding solitariness

Nonagenarians valued having social relationships. The importance of one's own children, grandchildren and spouse, and their success and well-being was highlighted, but also the importance of having social relationships in the first place. Also being social was described being important. This meant that it is important that one talks to other people, is surrounded by people and goes along with others.

I: What is most important in life?

P: Starting a family, of course, and taking care of children. And that your children are doing well. I am so happy that I have both of my grandchildren, these girls. They are both such nice and decent girls. (W16)

I: In your opinion, what is good old age like, what is required for it?

P: The most important for me, of course, is my relationships with God. But the second most important thing is that I have people around me. We are gregarious animals, we don't feel comfortable being alone. (M20)

P: With my backpack I go to the market and I meet another old person. I say, that I have to take it easy here for a while. That way I'm rubbing shoulders, and then we will have a long conversation. And so that person's day is saved, and so is mine. This is that kind of collective activity everyone should do. (W29)

Important values for the participants were also harmoniousness in social relationships, avoiding arguments and maintaining good rapport with loved ones. The importance of a good and harmonious relationship with the spouse was highlighted. In addition, accepting and acknowledging others was expressed to be important. This meant valuing other people, accepting them as they are and supporting them. On the other hand, a couple of interviewees also expressed that sometimes in life it is important not to be too compassionate towards others so that one would not let other people's sorrows affect one's own life too much.

I: What would you like to say to future generations? Now you can share your guiding principles in life and experience of life with future generations.

P: I think it's that, that you acknowledge the other person. That is the alpha and the omega in my opinion. That one would acknowledge the other person, so that we wouldn't be so indifferent like nowadays. In my opinion, that is the only thing, acknowledging the other person. (W8)

P: I don't really have any experience of life. Only, that we should try to travel together, supporting one another. (M3)

Having friends was important, and the nonagenarians also expressed their desire for friends, who would visit, with whom they could attend different events or reminisce old times. Also someone to help, to care for and to look after oneself was longed for.

I: What would you hope then, that you would have more, what kind of things?

P: Let's say, that there would be such things as someone you could call a pal and a friend. That kind of title, so that you could go to a theater or to movies. (M44)

I: What would be things that would made old age good?

P: I can't think of anything else, than that it would be good to have loved ones. To have someone, who takes care of you. Or is interested in you. But those are quite few in this busy crowd. (M24)

On the other hand, it was also described that it is important in life, that one would not need to be alone and lonely. Being left alone was experienced as the very downside of getting old.

P: . . . so it is not only a good thing to live to old age. That's what I have noticed, when friends pass on. [moved] And I'm quite much alone . . . (W10)

P: Good old age is that you have acquaintances, that you don't have to be lonely. (M11)

In addition, loneliness was experienced undesirable, because it can exclude or “imprison” a person, as was described by a few of the participants.

P: I must say, that although I would still have much left in me, but this loneliness, it imprisons you in a certain way. And when it imprisons you, it cuts down your way of thinking in some way very powerfully. It doesn't mean that one wouldn't understand, but the flight of thoughts... You can't get that kind of inspiration. (M44)

It is noteworthy, however, that being alone as such was not necessarily experienced as a bad thing. The ability to control being alone, by going anywhere one wants or by calling someone, was a reason why some participants described, that although they are alone, they do not feel lonely. Another reason for the nonagenarians to not feel lonely, although being alone, was the experience that the loved ones care for them, even though they are not able to visit them very often.

P: I have gotten to know people in this building, but this is the kind of place, where you don't really have any collective events. I don't know, we just are all in our own boxes here.

I: *Do you then feel lonely?*

P: *No, I never really have felt like that. If I do, then I grab my phone and call my friend or my sister. (W15)*

Therefore, being alone cannot be considered being synonymous with being lonely.

6. DISCUSSION

The primary focus of this study was on deepening the understanding of social relationships of the oldest old by studying the perceptions of home-dwelling nonagenarians. The research questions were: 1) What kind of restrictions to informal social relationships can living to very old age cause?, 2) How are informal social relationships significant for nonagenarians?, and 3) What aspects related to social relationships do nonagenarians value? In this chapter, the answers to the research questions will be given and the findings of the study discussed.

The answers to all of the research questions are manifold. Regarding restrictions experienced in very old age, there were a variety of them. Most of the restrictions experienced could not have been controlled by the older individual, thus, they occurred independent of the individual's influence. These include the death of loved ones, declining health of one's own and of the network members, the ability to move around, retirement, one's own age, relatives and friends living far away and the busy lives of relatives. Some of the restrictions were also related to the feelings of loneliness. Although individuals themselves can, to some extent, influence their own health and ability to function, catching an illness, in the end, occurs rather arbitrarily. Therefore, the only restrictions that clearly could have been influenced by the individual were one's own self-centeredness and losing interest in social life. A summary of the restrictions experienced by nonagenarians can be found in table 2

These results indicate that, in very old age, restrictions to social relationships are manifold, and most often the older individuals themselves cannot influence, whether the restrictions occur or not. It seems, however, that although the restrictions are experienced as unfortunate, the nonagenarians also find their restrictions, such as the death of loved ones, as an understandable part of their lives as oldest old persons. Therefore, the nonagenarians in this study, as oldest old persons in other studies, seem to accept the realities of their lives (Lloyd et al., 2014; Ness et al., 2014a; Ness et al., 2014b).

Table 2. Restrictions experienced by nonagenarians

Restrictions
Death of friends and relatives → loneliness
One's own and other's state of health
The ability to move around
One's own age
Retirement
Self-centeredness
Losing interest in social life
Friends and relatives living far away
Moving to another area → loneliness
Busy lives of relatives

Weakening or restricted social convoy (Tiilikainen, 2016; Fiori et al., 2007) seems to be the reality for the nonagenarians in this study. As was the case among the nonagenarians in the study of Neville et al. (2016), also the nonagenarians in this study had experienced changes that influenced their social networks, death of loved ones and health issues being the major obstacles for maintaining social relationships. As the nonagenarians in this study also felt that their own age restricts them from having social relationships and that establishing relationships with younger persons might not be easy, it can be argued, that weakening of the social convoy is, to some extent, inevitable for nonagenarians. Difficulties in finding a suitable and meaningful friend have been experienced by other older persons as well (Tiilikainen & Seppänen, 2017). Furthermore, weakening social convoy through death of loved ones and due to moving to another area away from old friends, have been found causing loneliness to elderly persons (Tiilikainen, 2016), as was found in this study as well. Furthermore, all of the other restrictions mentioned by the nonagenarians have also potential to make an individual susceptible to loneliness.

Regarding the significance of social relationships for very old individuals, three major categories were created: “company”, “help” and “source of joy, grief and lifelong lessons”. The summary of these findings can be found in table 3.

Table 3. Significance of social relationships for nonagenarians

Company	Help	Source of joy, grief and lifelong lessons
Visits from children, grandchildren, other relatives, and friends	Help received from relatives, neighbors and friends, mostly from own children	Joy from grandchildren, friends and neighbors
Visiting relatives and friends	<ul style="list-style-type: none"> - Help with everyday chores, also with everything needed 	Illness and death, disappointments, relatives not keeping contact, wrongdoings,
Spending time with neighbors	<ul style="list-style-type: none"> - Help as taking care: visits and phone calls to make sure everything is all right 	mistreatment in childhood
Telephone calls with relatives and friends	<ul style="list-style-type: none"> - Neighbors helping with outdoor chores 	Positive impact of families: healthy lifestyle, learned attitudes
Taking part in association activities	Help given to others: mostly other elderly people, also own spouse	
	<ul style="list-style-type: none"> - Experience of necessity 	
	Importance or necessity of being independent	

Nonagenarians were provided with company by their social networks, formed by children, grandchildren, other relatives and friends. Having social contact with children and grandchildren was commonly described in the interviews and other relatives and friends were also met, but not that often. The meetings most often happened in the home of the nonagenarian. Neighbors were an important social contact because they were described being always present. For many participants, telephone was an important way to stay connected with friends and relatives who lived far away. These findings indicate

that the social engagement of nonagenarians mostly happens in the place where the nonagenarian lives: in their home and neighborhood. Those living farther away were brought closer to the nonagenarian by telephone calls. Nevertheless, nonagenarians stayed socially connected also outside their home and neighborhood by taking part in association activities.

Home has been found to be an important place for the very old and an important place to meet relatives and friends (Fänge & Ivanov, 2008). Keeping company and staying connected with family and friends, both face-to-face and via telephone, was found as an important part of the social lives of the very old also in the study of Neville et al. (2016). They also found, that for some participants, telephone had become more important means to stay socially connected over time. Telephone calls were also found to be a significant predictor of valuation of life in very old age (Jopp, Rott & Oswald, 2008). The suggestion of technology playing a central role in ensuring the oldest old to stay socially connected (Neville et al., 2016), is supported by the findings of this study, since the nonagenarians in this study often described using the telephone in order to be in contact with family and friends, and, for some, telephone was the only way to be in contact with social network members.

Help was a common topic in the interviews and informal social relationships were an important source of help for nonagenarians. Mostly children and grandchildren were described helping the participant with everyday life chores, such as cooking and cleaning. Neighbors mostly helped with outdoor chores. Nonagenarians also described that their family and their neighbors help them by taking care of them in general, that is, helping with everything needed or calling or visiting just to make sure everything is all right. In addition, nonagenarians gave help to others, mostly friends that had poorer health than they had themselves, and helping others was expressed to be important and a way to feel necessary. Experiences of caring for spouse were also described and the importance of taking care of the spouse at home, even at the expense of one's own well-being, was brought out. Although receiving help was commonly described, also the importance, or for some, the necessity, of being independent was brought forward.

Considering the limitations to one's health and ability to function experienced in very old age (Helminen et al., 2012; Jylhä, Enroth & Luukkaala, 2013), it is no surprise, that

getting help is commonly discussed topic among nonagenarians. The importance of informal support for the oldest old was also found in the study of Boerner et al. (2016) where children were found to most often provide help for the centenarians. Moreover, in the same study, participants mentioned receiving help with chores related to everyday life, but also with everything they might need help with, as was the case in this study as well. The importance of the help of neighbors for nonagenarians with outdoor chores, but also with everything needed, was found also in the study of Neville et al. (2016). Not only describing concrete help, but also helping in the form of “taking care” and receiving help with everything one might need help with, indicates that, for the oldest old, it is not only important to receive help with major, easily identifiable, tasks, such as cleaning and outdoor chores, but that there is also someone to help with all of the little problems one might encounter in life.

Similarly to findings of van Tilburg (1998) giving help was not as common in the interviews as getting help. In addition, relatives seem to play a more important role, at least in regards to instrumental support, than friends in the lives of the nonagenarians (van Tilburg, 1998). Nevertheless, nonagenarians also regarded helping others important in their lives and felt necessary when they were able to give help. Therefore, it can be argued, that the reciprocity of relationships is important. Thus, for the oldest old individuals, it is not only important to receive help, but also to be able to give help.

In addition, although nonagenarians told about receiving help for their tasks, they also brought out the importance of being independent and did not want to be patronized. Independence was also experienced as an important factor in the successful ageing of nonagenarians (Nosraty et al., 2015). Furthermore, staying independent and not being a burden was found to be important for oldest old men. For them, this wish had caused feelings of loneliness. (Ness et al., 2014b.) Nonagenarians in this study did not, however, talk about independence in this context. Some of the nonagenarians also had to be independent, because there was no-one to help. Thus, independence was not always a choice, but a necessity. It is also noteworthy, that the dependencies in the lives of older persons, such as dependence on help of others, may actually enable independence, for example, by enabling the person to still live in one’s own home in the fourth age (Tanner, 2016).

Social relations can bring joy and happiness, but also grief and disappointment into one's life. This was the case of the social relationships of nonagenarians in this study as well. The participants described especially their grandchildren bringing joy and enrichment to their lives. In addition friends and neighbors were described as a source of happiness in one's life. Death and illness of a child and disappointment caused by own child caused grief to nonagenarians. Some also felt sad about their relatives not remembering them and keeping in contact. Other people's wrongdoings towards the participants and mistreatment in childhood were also described. On the other hand, also the positive impact of childhood families for one's life was brought out in the interviews.

Older individuals have been found to describe various positive aspects related to being a grandparent and they appreciate their relationships with their grandchildren (Mansson, 2016). Moreover, troubling childhood experiences and unpleasant issues related to social relationships, such as loss of a child and troubles with a child, have been found to cause loneliness to older persons (Tiilikainen & Seppänen, 2017). As the life-course perspective (Dannefer & Settersten, 2010) suggests, life experiences of an individual strongly affect one's present life. This could be recognized in this study, since the nonagenarians' current lives were connected to the experiences they had had in the past. As the participants in this study explained, their way of life, life choices and attitude towards life had been influenced by social relationships in their past, reaching as far as their childhood. Therefore, the findings indicate that significant social relationships are not only those the person has in the exact moment, but also those that have strongly influenced the person during their life-course. Naturally, the influence can be both positive and negative as was found in this study.

Lastly, when considering aspects related to social relationships that are valued by nonagenarians, based on the findings of this study, it is clear that nonagenarians value having social relationships and not being alone. The importance of the family – one's own children, grandchildren and spouse – and their success and well-being was highlighted, as was having a good and peaceful relationship with one's spouse. In addition, having friends was important, but also having social relationships in the first place. Indeed, being social, meaning, being surrounded by people and talking to people, was deemed important and, on the contrary, being alone and lonely was experienced as

undesirable. Nonagenarians valued harmonious relationships, that is, getting along with others and not having arguments. In addition, and most likely in connection to the appreciation of harmoniousness, also accepting and acknowledging others was described as being important. Loneliness and being alone were undesirable, although being alone did not always mean being lonely. Table 4 summarizes the findings of valued aspects of social relationships in very old age.

Table 4. Valued aspects related to social relationships in very old age

Valued aspects
Family and their success and well-being
Having people around
Having friends
Harmoniousness of social relationships
Good relationship with spouse
Accepting and acknowledging others
Not being alone, not being lonely
- Alone, but not lonely:
ability to control being alone and feeling that someone cares

The emphasis on valuing harmonious social relationships and the importance of family for nonagenarians would suggest that nonagenarians value emotionally close and satisfactory relationships, as is suggested to happen when people grow old by the socioemotional selectivity theory (Carstensen et al., 1999). Furthermore, the appreciation of harmoniousness, avoiding arguments, maintaining good rapport with loved ones and acknowledging others rather than emphasizing the importance of oneself would show some consistency with the ideas of gerotranscendancy (Tornstam, 2011), as would also the notion of losing interest in social life as natural in old age. On the other hand, the nonagenarians in this study did not emphasize solitariness over social relationships, as did some oldest old persons (Cherry et al., 2013; Ness et al., 2014a). Nonagenarians in this study rather found being alone undesirable and their valuation of peace and absence of negative emotions was reflected in their desire of certain kind of social relationships, not in the will of living a solitary life. It is also noteworthy, that

being alone and being lonely are not synonymous. As was described by some of the participants, under certain circumstances, one can be quite content also when being alone.

Both SST (Carstensen et al., 1999) and GT (Tornstam, 2011) suggest, that in old age people also actively narrow down their social relationships, concentrating on close and pleasant social relationships and disengaging from insignificant ones. This might have been the case among the nonagenarians in this study, at least, as the importance of close family members and preference for peaceful relationships were highlighted. However, there is no direct indication in the findings of this study about the willingness of the oldest old to disengage from their social relationships. As described earlier, the experienced limitations in social relationships and the narrowing down of the social network were not due to the active or voluntary efforts of nonagenarians themselves, but rather, on the contrary, due to circumstances the nonagenarians could not influence themselves.

Clearly, based on their age and life stage, the nonagenarians in this study can be said to be living the fourth age. However, the idea of fourth age as a phase of frailty and dependency (Baltes & Smith, 2003) or complete lack of agency (Higgs & Gilleard, 2014) is not supported by the findings of this study. Although it is true, that the social lives of the nonagenarians in this study were limited by a variety of factors and they were, to some extent, in need of informal help, the nonagenarians also described having, enjoying and engaging with their social network members. As Tanner (2016) suggests, fourth age should be seen not only through the various limitations encountered in very old age, but also through the possibilities the oldest old still have. The meaning and support social relationships bring to one's life may, as was found by Lloyd et al. (2014) and Tanner (2016), be something that enables the oldest old to live a meaningful life and maintain their identity, dignity and autonomy in the fourth age. Therefore, it is possible that, despite the limitations the nonagenarians in this study experienced, their meaningful social relationships have contributed to their ability to continue living a good life even in very old age.

7. CONCLUSIONS

By studying the perceptions of the oldest old about their informal social relationships, this study aimed at finding out, what kind of restrictions to social relationships do nonagenarians experience, how are social relationships significant for nonagenarians and what aspects of social relationships are valued by nonagenarians. Hence, the study aimed at deepening the understanding of social relationships in very old age. An extensive summary of the findings and discussion of the results is provided in the previous chapter. This chapter provides a condensed overview of the findings along with some strengths, limitations and ethical considerations of the study. Furthermore, a call for further studies is indicated.

The findings of this study indicate that, in multiple ways, social relationships are significant in the lives of nonagenarians. Nonagenarians receive help, company and feelings of joy from their informal social relationships, but also unpleasant feelings, although not very often described, are present. In addition, not only current social relationships proved to be significant, but also influential social relationships one has had in the past, such as one's own parents. Clearly, the nonagenarians in this study valued having social relationships, especially harmonious ones, and they found loneliness and being alone undesirable. At the same time, nonagenarians encountered various circumstances in their lives, which restricted their social relationships. These restrictions were also mostly outside the influence of the nonagenarians themselves. Thus, it seems that there might be a contradiction between the aspirations of the oldest old regarding their social relationships and their possibilities to fulfil those aspirations.

The limitations of the study are related to possible overrepresentation of healthier and more active nonagenarians as participants of this study compared to the most vulnerable in terms of health, mental abilities and other resources. In addition, all the participants in this study were living in their own home or in sheltered housing and no nonagenarians living in institutions were participating. Furthermore, limitations related to the data collection method and data analysis can be recognized. These include the possible effects of the interviewers to the interview process and the possible influence of the researcher's presuppositions in the analysis and interpretation of the data.

However, the effects of these limitations were minimized by careful and systematic procedures followed in every phase of the study. Strengths of the study are also evident, since the use of extensive interview data has enabled in-depth and varied descriptions of the studied subject and, therefore, the considerations of multiple perspectives leading to the recognition of various different aspects of informal social relationships in very old age. Limitations and strengths of the study are discussed more broadly in the chapter 4.4.

The author of this study is obliged by a written contract to follow the guidelines of The Finnish Advisory Board on Research Integrity (2012) for responsible conduct of research. Furthermore, as also the contract obliges, the author has handled the data carefully and confidentially and used it only for the purpose of this thesis. After the completion of the thesis, the data will be destroyed. As original quotations of the study participants are used in the results section of this thesis to validate the analysis of the data, careful attention has been paid on the anonymity of the study subjects. The collection of the data used in this thesis was approved by the Ethical Committee of local hospital district.

The findings of this study give reason for further research on the topic. As a contradiction between both the significance and appreciation of social relationships and the possibilities of older individuals to influence the realization of their social engagement was found, more attention is needed to recognize the manifold obstacles the oldest old encounter, and to find solutions to alleviate the negative effects of those obstacles for their social lives. As telephone was found to be an important means to stay socially connected, the possibilities of technology in facilitating and enabling social connectedness of the oldest old should be investigated further.

According to my findings, family plays a central role in the lives of nonagenarians and family is also an important source of help for nonagenarians, especially children as providers of help. By helping to manage everyday chores the informal social relationships also contribute to the independence of the older persons, allowing them to keep living in their own home. Therefore, it seems, that those older persons with children and grandchildren are in a better position, with regard to social engagement and receiving help, than those with no children or those whose children are living far away.

Furthermore, this study was not able to take into consideration the perceptions of those oldest old persons living in institutions. Whether they have similar or somehow different perceptions about social relationships, should be resolved by further qualitative studies. Consequently, different family compositions, life circumstances, and resources of the oldest old should be considered in further studies, in order to gain even more detailed knowledge about the oldest old and to ensure that the perceptions of also those who are in less advantaged positions are taken into consideration.

This study has revealed some aspects of the informal social relationships of the oldest old individuals and has, therefore, contributed to the enhancement of the understanding of the oldest old persons' perceptions regarding informal social relationships. Furthermore, by studying the perceptions of the oldest old themselves about their social relationships, this study has been able to take into account the diversity and complexity of experiences, also highlighting, that the oldest old are not a homogeneous group. In order to better understand very old age in its multiformity, various, and also divergent, perceptions need to be acknowledged. Consequently, more studies using qualitative approach are needed to capture the multiple aspects of (social) life in the oldest old age.

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APPENDICES

Appendix 1. Interview framework

VITALITY 90+ INTERVIEWS 2012

INTERVIEW FRAMEWORK (translated from Finnish into English by the author of this thesis)

Could you tell me your life story right from the beginning?

- Childhood, parents, grandparents, siblings, other family
- Childhood home, circumstances, spirit at home, guidelines in life given by parents, upbringing
- School, studies
- Working life, jobs during life, the nature of work
- Getting married, spouse
- Starting a family, children and their phases
- Wartime
- Deaths of loved ones

- What has been most important in your life? What is most important now?
- How have you coped with difficult matters/times in your life?

- Hobbies
- Retirement
- Current family, important persons, friends
- Course of the day, everyday life, “managing financial issues”
- Current housing

- What is good old age like in your opinion? What is required for it? What things are included in it?
- In your opinion, what is the secret for your longevity?

- How do you feel nowadays? (health, ability to function, memory, mood, in relation to peers)

- Illnesses and medication (at a general level)
- How do you take care of your health?
- Experiences about doctors and hospitals
- Do you have experiences in caring for a close relative? Have you had to take care of a sick relative for longer periods?

- In your opinion, how has the world changed during your lifetime?
- What are the biggest/most significant changes in your opinion?
- What is better in Finland than before, what is worse?
- Status and appreciation of older people
- What would you like to say to future generations? Do you have some experience of life?

Is there still something else you would like to tell, or do you have questions?