Social Participation in the Daily Lives of Frail Older Adults: Types of Participation and Influencing Factors

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Author Contributions

Daan Duppen and Deborah Lambotte collected the data and performed the qualitative analysis. An-Sofie Smetcoren, Sarah Dury and Liesbeth De Donder conceived the study design, supervised the data collection and data analysis. Daan Duppen took the lead in writing the manuscript. Honghui Pan, Liesbeth De Donder, Sarah Dury, An-Sofie Smetcoren and Deborah Lambotte provided critical feedback and helped shape the research, analysis and manuscript.

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Manuscript

Abstract

Objectives: The advantages of social participation for older adults are well-established and have been adopted in aging policy frameworks. However, little is known about the social participation of frail older adults. This research examined the types of social interaction of very frail older adults and the factors influencing this participation.

Method: Interviews with 38 very frail older adults were analyzed using Levasseur et al.'s (2010) taxonomy activity levels of involvement with others. A qualitative hybrid approach with inductive and deductive thematic analyses was employed.

Results: Participants often disengaged from activities with high involvement with others, preferring activities with less involvement. Low-key participation emerged as an important type of social participation enabling frail older adults to remain engaged in society. Key factors that influenced social participation were functional decline, and the physical (e.g., traffic, the disappearance of local stores) and social environment (e.g., social networks and the presence of meeting places such as community centers).

Discussion: Findings advance our knowledge and recognition of the different ways frail older adults participate in society. Despite their frailty, older adults wish to stay socially active. Focusing on the social environment in the frameworks and policies of Age-Friendly Cities and Communities will benefit these individuals.

Keywords: low-key participation, social environment, age-friendly, qualitative research

Social Participation in the Daily Lives of Frail Older Adults: Types of Participation and Influencing Factors

Social participation is a very broad concept that can take many forms, including leisure activities, meeting friends, volunteering, and more (Levasseur, Richard, Gauvin, & Raymond, 2010). Empirical gerontological research has found positive relationships between social participation and lower frailty levels, and between social participation and less adverse frailty outcomes. However, the body of literature on different types of participation in research on frailty in older adults is poor (Duppen, Van der Elst, Dury, Lambotte, & De Donder, 2019). Although social participation is multifaceted in nature, this study concentrated on the types of social participation undertaken by frail older adults.

Current aging policy frameworks promote social participation as one way to target the challenges of an aging society. One strategy that has been promoted by the World Health Organization (WHO) is that of age-friendly communities. Older adults can age actively in a community that optimizes "opportunities for health, participation and security in order to enhance quality of life as people age" (WHO, 2007, p. 1). The WHO concept of age-friendliness has enabled researchers to investigate the effects of an age-friendly environment perspective that is now implemented worldwide through local and regional policies (Moulaert & Garon, 2016). The strategy of age-friendliness was originally developed for city policies but later adapted into age-friendly community initiatives in more rural places (Menec et al., 2014). Although the initiatives of Age-Friendly Cities and Communities (AFCCs) are targeted towards older adults, the concept includes all ages and is meant to be more than just elder-friendly (Fitzgerald & Caro, 2014). Improvement of the physical environment, for example, also benefits people who are less mobile, and secure environments stimulate children to participate in activities in their neighborhood (WHO, 2007). AFCCs illustrate the paradigm shift in aging

policy from a rather individual-oriented approach by public authorities and programs for older adults towards community support services (Greenfield, Oberlink, Scharlach, Neal, & Stafford, 2015).

As well as these benefits and opportunities, there are also challenges in creating age-friendly environments, and some have criticized the concept. One such criticism is focused on the impact on all age groups, for example, "Are age-friendly communities intended to help healthy older people live more meaningful lives or to help the most frail older people age safely in place?" (Golant, 2014, p. 11). A second criticism concentrates on the lack of attention towards the social aspects of aging in the age-friendly literature (Smetcoren et al., 2018). The present research aimed to address both criticisms by focusing on frail older adults and their social environment by exploring their social participation.

The concept of AFCCs was built on the WHO's framework of active aging (WHO, 2007). The terms age-friendly and active aging are derived from an ecological perspective on aging and suggest links between individuals and their social and physical environments (Steels, 2015).

Since 2015, however, the WHO has replaced the concept of *active aging* with that of *healthy aging* as the basis for the lead policy framework (Beard et al., 2016). This framework builds further upon the 2002 active aging framework, emphasizing maintenance of high functional ability in later life. The new framework has been advanced taking into consideration functional ability (i.e., abilities that allow people to age well, such as meeting their own basic needs or moving around) and intrinsic capacity (i.e., the combined physical and mental capacities of an individual), both of which vary over the life course (WHO, 2015). In contrast to the active aging framework, where participation was one of the pillars next to health and security, this is less apparent in the new health policy framework. As an alternative, the healthy aging framework uses *needs* and captures health services, long-term care, and the environment

as important factors in healthy aging. Social participation is included within environmental needs and one of the strategies is "to remove barriers to participation*"* (WHO, 2015, p. 33).

Social participation is a key element in aging theories. The theory of disengagement was proposed in 1961 and is one of the first gerontological theories to describe the abandonment of social roles. Although a direct link with social participation is absent, the theory outlines that after retirement men "should" disengage from their instrumental role (i.e., labor participation) and women detach from their socio-emotional role (i.e., marriage and family) in order to achieve fulfilling lives. Although most people disengage from their former activities to some extent, the theory remains very controversial (Achenbaum & Bengtson, 1994). In the same era, other researchers argued against this theory, proposing that older adults have higher levels of life satisfaction when they remain highly active instead of disengaging from activities (Marshall, Martin-Mathews, & McMullin, 2016). Today, activities for older adults are seen as crucial for building and maintaining relationships which is essential for healthy aging (WHO, 2015).

Using the same line of reasoning, Tornstam's gerotranscendence theory is often considered as a form of negative disengagement by social gerontologists. Tornstam describes his theory as a "shift in meta-perspective from a materialistic and rational view to a more cosmic and transcendent one, normally followed by an increase in life satisfaction" (Tornstam, 1989, p. 55). This shift in meta-perspective can include decreasing interest in material things and superfluous interactions (Tornstam, 1989). This links with the socioemotional selectivity theory proposed by Carstensen and colleagues, in which the role of time predicts the goals that people attempt and the social partners they need for these goals. "Activities that are unpleasant or simply devoid of meaning are not compelling under conditions in which time is perceived as limited" (Carstensen, Isaacowitz, & Charles, 1999, p. 166). One similarity in these aforementioned theories is the proposal that aging leads to a slow decrease in the number of

activities undertaken (Adams, 2004). Different authors distinguish between different dimensions in social participation, such as formal versus informal participation (e.g., Guillen, Coromina, & Saris, 2011), community involvement versus individual relationships (Amagasa et al., 2017), and formal participation versus social activities (Buffel et al., 2014; Dury et al., 2016).

A systematic review by Levasseur and colleagues (2010) differentiated six levels of activities. Doing activities alone (level 1) or in parallel (level 2) are not considered to be social participation. The other levels include interaction with others and are regarded as participation: Level 3 concerns socially-oriented activities (e.g., talking with neighbors) and level 4 involves task-oriented activities (e.g., computer classes in the senior center). Level 5 activities are oriented toward helping others (e.g., volunteering), and level 6 includes society-oriented activities (e.g., being involved in a political party). Levasseur et al. stated that social engagement (levels 5 and 6) is also a form of social participation. However, not all types of social participation (e.g., leisure activities) can be labeled as social engagement (Levasseur et al., 2010). In our study, we considered social participation to include all activities where people interact with others, from socially-oriented activities to society-oriented activities.

The advantages of social participation in later life are well-researched. These advantages include health benefits (e.g., Kim, Kim, MaloneBeach, & Han, 2016), less cognitive decline (Tomioka, Kurumatani, & Hosoi, 2016a), better quality of life (Levasseur, Desrosiers, & Tribble, 2008; Zhang & Zhang, 2015) and being able to live longer independently at home (Tomioka, Kurumatani, & Hosoi, 2016b). A recent systematic review noted a positive relationship between social participation and lower frailty levels (Duppen et al., 2019). However, there is a paucity of research on this topic and research on the forms of social participation undertaken by frail older adults could increase our insight into the relationship between social interaction and frailty. To date, research on the influence of social participation

on frailty has mainly focused on higher level activities, such as volunteerism (Etman, Kamphuis, van der Cammen, Burdorf, & van Lenthe, 2015), and has not looked at the lower levels of social participation. Thus, the relationship between lower levels of social participation and frailty is currently unclear. When different levels of social participation, as presented in the taxonomy of activities by Levasseur and colleagues, are used, a detailed interaction of older adults with their social environment can be better understood (Levasseur et al., 2010).

Health systems need to be redesigned to provide services that enable older adults to age in place (Beard & Bloom, 2015) and a better understanding of the interaction of older adults with their environment might give direction as to how to alter these systems accordingly.

Building on the gerotranscendence and socioemotional selectivity theories, the inclusive purpose of AFCCs to provide for all older adults, and to gain more insight in the relationship between social participation and frailty, this study explored the participation of frail older adults in social activities. The study aimed to answer two research questions:

1. How do frail older people participate socially in society?
2. Which factors influence frail older people's social participation, and what is the role of the social environment in this process?

Method

Research Approach and Data Collection

The data collected in this qualitative study were based on interviews with frail community-dwelling older adults, collected in a larger study using a mixed method design (Dury et al., 2018). In this study, older adults at risk of frailty (n = 121) were interviewed by six researchers (92 interviews) and three undergraduate students (29 interviews) during the winter of 2015–2016. On average, the interviews lasted 46 minutes (range 17–139 minutes) and no incentives for participation were provided. Briefly, the larger study aimed to examine how older adults perceived their frailty, quality of life, sense of mastery and meaning in life, and the

balancing factors that influenced these variables, such as social participation and environmental factors. The study also explored old-age life events that affected participants' experience of frailty. The results of the larger study can be found in Dury et al. (2018) and van der Vorst et al. (2017). The topic list for the interviews was developed together with the entire D-SCOPE research group, which consisted of 21 researchers across several disciplines (including neurology, general practice, psychology, educational sciences) although all researchers were specialized in gerontology, dementia and/or frailty. To increase the reliability of the interviews (Boeije, 2010), the researchers who conducted the interviews received training with simulated patients while being recorded and practiced the interview with three simulated patients before interviewing study participants.

In the present study, a secondary analysis was carried out on the data of 38 participants with high scores for frailty as assessed by the Comprehensive Frailty Assessment Instrument (CFAI; De Witte et al., 2013).

Participant Recruitment and Characteristics

Participants were recruited in the Flemish speaking area of Belgium and the city of Brussels, Belgium, using snowball sampling. Half of the participants were recruited with the help of five home-care organizations. Participants were excluded from the study in cases of hospitalization, when the participant or the informal caregiver indicated that the older adult was unable to participate, or when the interviewer noted that the older participant was unable to provide adequate answers (e.g., not being able to answer questions due to physical exhaustion or distraction).

From the total of 121 participants, 39 scored as highly frail, compared to 34 who scored as mildly frail and 38 who scored as low in frailty or not frail. Ten participants ignored certain items on the self-assessment and thus had no frailty score. One person refused to participate in the qualitative interview, leaving 38 out of 121 participants eligible for this study. Table 1

presents an overview of the participants' characteristics. Twenty-six participants were female, 12 were male, and the mean age was 77.7 years (range 60–94). Four participants had a migration background (that is, having a country of origin other than Belgium), 34 were Dutch-speaking, and one was French-speaking. An interpreter was present at the time of the interview for one Italian-speaking participant and two Turkish-speaking participants. Participants were interviewed only once.

Interview Scheme and Data Analysis

All interviews were digitally recorded with the participant's permission and transcribed verbatim. Each interview opened with the question "How do you experience frailty and what does frailty mean to you?". Depending on the participant's answer, the interviewer asked questions requesting greater detail, for example on activities, former activities, and neighborhood participation. Subsequently, other questions followed. For more information on the entire study design, see Dury et al. (2018).

A hybrid approach of inductive and deductive thematic analysis was used, as discussed by Fereday and Muir-Cochrane (2006). For the deductive analysis, the taxonomy of activity levels by Levasseur (2010) (Table 2) was used *a priori* in the development of the code manual (Appendix 1). Given that only the activity levels 3 to 6 are considered forms of social participation, only these were included in the analysis. These are defined as follows. Level 3 – socially oriented activities, such as interacting with others while receiving care, visiting friends and neighbors, and having meals in a local service center; level 4 – task-oriented activities, such as group activities organized by the local service center, hobby clubs, and senior organizations; level 5 – activities that are oriented toward helping others helping others and volunteering; and level 6 – society-oriented activities, such as being involved in an organization or political party. These were the main levels but as the interviews progressed new themes emerged, and inductive

analysis led to the creation of sublevels. To maximize our understanding of the ways in which frail older adults participate in society, both deductive and inductive analyses were conducted.

Two researchers, who also interviewed the participants, were involved in the coding process. In the first step, they separately coded six identical interviews for the development of a code manual. Frequently occurring sublevels, such as reasons to stop, reduce or compensate for participation, were added to the code manual. One researcher coded the other interviews with the final code manual using MAXQDA software. The stages of data coding delineated by Crabtree and Miller (1999) – reading the text, creating the code manual, computer coding, sorting segments and making connections – were used as guidelines in this procedure. After this interpretive process (coding), findings were discussed with three other researchers. One of the researchers was involved in the development of the code manual to increase credibility and to foster reflexivity. Findings from the deductive analysis and new insights from the inductive analysis were discussed with two other researchers that did not participate in the interviews. In the final step, all researchers involved in this study discussed and weighed the interpretations (‘investigator triangulation,’ Patton, 2015, p. 316).

Quality Procedures and Ethical Approval

The D-SCOPE study was approved by the Human Sciences Ethical Commission of the Vrije Universiteit Brussel (ECHW_031). All participants signed an informed consent agreement.

Results

Social Participation by Frail Older Adults

With respect to the levels of activities (Levasseur et al., 2010), most activities mentioned by participants were centered around the third and fourth levels (interacting with others, and doing an activity with others, respectively). Interaction with others was found to be a source of joy and quality in their lives.

Level three activities were mostly found in visiting others, receiving visitors or receiving help from professionals and family. A specific type of spontaneous participation was labeled as low-key participation. This type of participation related to daily casual contacts with neighbors and passersby in the neighborhood. These moments could be brief and were necessary for being up-to-date on everything that is happening in the neighborhood. In certain cases, there was no direct contact with the other, as an older widowed woman told:

> I don't feel lonely… I walk around with my cane and when I look through the window, I see many people passing by (Widow, 91 years old).

As for level four activities, many participants enjoyed going out with other people during weekly activities, such as doing groceries or occasional shopping trips with friends or family. Frequently mentioned organizers of activities were hobby clubs, senior clubs and the community local service centers. According to the participants, these organizations stimulated them to stay active in ordinary activities, such as going to the movies or playing cards, as well as in extraordinary activities, like information meetings on public transport for older adults.

There were no mentions of activities that contributed to society (level six) and only two participants mentioned activities where they were helping (level five) other older adults.

> I don't need it (help) yet, in contrast to those upstairs, two older, older than me… But I help them. I do the groceries.
>
> […]
>
> The neighbor is 88. In the morning, I go down to pick up his newspaper and I bring it up. If he needs something, groceries, I do it (Widower, 78 years old).

Factors that Influenced Frail Older People's Social Participation

Frail older adults withdrew from activities as a result of functional decline and/or a changing physical and/or social environment. Functional decline had an enormous impact on participants' mobility. Pain, experiencing balance problems, and having a slower reaction time led to fear of using public transport or walking around in the community. Visual problems caused this 79 year-old widower to stop his fishing hobby:

> R: I enjoyed fishing so much, I had to get rid of everything. I couldn't see my fish dobber anymore. "How is this possible, you had an operation?", my nephew asked. But, yeah, they told me (in the hospital) they couldn't do much anymore. (…) I stopped going since.
> Interviewer: Are you still in contact with people from the club?
> R: No, no, no, I'm not.

The quote above illustrates how people disengage from hobbies due to functional decline. In certain cases, participants resigned themselves over the fact that they were old, and their activities belonged to the past. Others compensate the loss of one activity with another one.

> We used to go cycling, now it's only here and there … It's still difficult, we used to go cycle through and around the whole of Brabant [province]. I try to cope with it by driving to people I know, to chat for an afternoon. That's how I solved that problem. (Widower, 83 years old)

As well as hobbies and other activities, shopping was an important activity for most older adults for food provision and social contact. A changing physical and or social

environment such as the disappearing of local stores, difficulties in taking public transport, and heavy traffic, was responsible for the decline in neighborhood participation. According to a few participants, migration was another factor causing decline in neighborhood participation. Some had a negative image towards neighbors with a migration background, while others found that language was a barrier to connect with immigrants, just like they experienced difficulties connecting with younger adults.

An environmental cause of diminishing activity was the decline of social networks. In some cases, the death of a spouse was responsible for the loss of an entire friendship network. Peers also experience functional decline and stop visiting. Again, for some participants, these events are part of aging. One participant tried to establish new friendships to compensate for the loss of friends, but found it hard to maintain these relations due to physical problems:

> You belong less and less somewhere, I become aware of that. I lost my best friends. Death, disease. Then I tried to build new friendships, but once you start having problems, you can't have dinner together, you can't join activities, you feel you lose them again. (Never married woman, 74 years old)

Some participants noted a desire to take up new or old activities. For those who did not compensate for a loss in participation, a desire for connecting with others was expressed a number of times. Again, it was not easy to make this connection. For single older adults, it appeared difficult to join a group with couples and other people who already knew each other.

Frail older adults interacted frequently with other people in their living environment. This social dimension of the neighborhood, or the social environment, comprises multiple factors. It comprises the formal and informal networks of older adults as well as meeting places,

such as a local service center, a local store or their own street. From the narratives of frail older adults, we found that these social environmental factors serve to maintain and increase the well-being of frail older adults and have the potential to act as a catalyst for social participation. The specific type of activity appeared to be less important than the social contacts obtained as a result of participation. For one woman, making contact with others was the reason to go back to church. Another example is the role of professional caregivers, which went beyond providing physical care alone. During care moments, they created a pleasant atmosphere in the recipient's life and were a source of information. Another example is how caregivers stimulated participation by referring lonely older adults towards community centers:

> R: The service center, I started to go there this year, I had to.
>
> I: How come?
>
> R: My general practitioner told me to go, because I cried here all-day long. I didn't eat anymore. My husband died and I ate only sandwiches with syrup for two years. My food didn't [have] taste, it didn't taste. And now I eat there every Thursday but alone it does not [have] taste.
>
> I: So, your general practitioner told you to go there?
>
> R: Yes, he told me, but it's only once a week, that's not enough. Three times a week would be better, because people really look forward to that day. (Widow, 80 years old)

When social participation declined and was more concentrated on people in the vicinity, participants greatly appreciated good contact with neighbors, both for contact and as a safety net. Participants explained how local community centers enabled participation as well as opportunities for engagement. Participants also noted their appreciation for the broad range of activities provided by local community centers, ranging from physical and leisure activities to providing meals, all of which stimulated social contact.

Discussion

The aims of the current study were to explore: 1) how frail older people reason about and experience their social participation, 2) to generate knowledge about the factors that influence the social participation of frail older people, and the role of the social environment in this process. Using a hybrid approach of inductive and deductive thematic analysis, we found that, despite being frail, most older adults in this study still participated in a range of activities.

We used the taxonomy of activity levels by Levasseur (2010) to gain insight into the social participation of frail older adults. To a limited extent, a few older adults in our sample participated in helping other older adults. Participating in social activities, whether organized or not, and visiting friends and family, were frequently mentioned by participants and were a source of enjoyment. Participants also reported spontaneous or low-key social participation, comprising brief contact moments with neighbors or passersby that were part of daily life. Low-key participation has been described previously in German studies (Kaspar, Oswald, & Hebsaker, 2015; Nauman, 2006) and appeared in the narratives to be important in producing a feeling of belonging in the neighborhood. Earlier frailty research on social participation has generally explored the higher levels of social participation, such as volunteering (Etman, Kamphuis, van der Cammen, Burdorf, & van Lenthe, 2015) or engagement in helping others (Woo, Goggins, Sham, & Ho, 2005). Although this study was qualitative, and we did not want to quantify the results, we noticed that the types of activities that frail older participated in were centered around the lower levels of social participation, and thus further research should take these lower levels also into account.

Regarding the second research question, functional decline and social environmental changes emerged as barriers to participation in the narratives of this study. Physical environmental factors that impeded participation included inaccessible public transport and heavy traffic. The ability to be mobile is an important factor for healthy aging and many cities

have projects aimed at stimulating mobility by creating accessible environments and have created initiatives to enhance public transportation (WHO, 2015).

Being able to go to local stores is another important factor in healthy aging. This basic activity is necessary for nutrition (WHO, 2015) and although the activity can be delegated to others, participants in this study found it essential for their neighborhood participation. The age-friendly concept is already embedded in businesses in several age-friendly networks. Examples of this are the education of business-serving organizations in New York, USA, to maximize both the social and economic participation of older adults (Goldman, Owusu, Smith, Martens, & Lynch, 2016), and the dementia-friendly community project in Bruges, Belgium, where a range of shop owners empathically welcome persons with dementia (Biggs & Carr, 2016).

Physical and/or social environmental factors advance leisure activities and stimulate the formulation of social networks (Wahl & Weisman, 2003). The results of this study indicated that the social environment can act as a catalyst in stimulating new or other forms of social participation for those who have fewer participation opportunities as a result of being frail. Churches and community centers were places in the nearby living environment that enabled social participation. Professional caregivers, neighbors, and passers-by facilitated social participation for those with a social life that was limited to being either close to, or completely restricted to their home environment.

These results show that older adults do disengage from social participation when becoming frail. However, the compensation of lost participation with new forms of participation, and the stimulation provided by the social environment can improve the wellbeing of frail older adults when they disengage from former activities. The question remains as to whether the social environment can stimulate all older adults who disengage from activities, and the limitations of this when a person is, in fact, too frail to participate in activities with others.

The results of this study do not clearly align with either gerotranscendence theory or the socioemotional selectivity theory. However, some of our findings fit within the compensation part of the theory of selection, optimization, and compensation (Baltes & Baltes, 1990). Recent research showing how compensation strategies for lost activities are important for older adults with physical impairment (Carpentieri, Elliott, Brett, & Deary, 2017) is in accordance with our own findings on the compensation of lost activities for frail older adults. Our results also emphasize the importance of the role of the social environment in stimulating this compensation.

Concerning the important role that the community plays in the lives of older adults (Provencher, Keating, Warburton, & Roos, 2014) and the current policy focus on healthy aging, these results indicate that a focus on the environment, and more specifically the social environment, is important for the inclusion of frail older adults in the community. However, the social environment cannot be separated from the physical environment and both should always be taken into account. As seen in these results, community service centers can play a major role in connecting frail older adults through participation. Assuming these services are available for frail older adults, people in the living environment can stimulate them into going there. AFCCs are important for frail older adults (Cramm, Van Dijk, & Nieboer, 2016). We believe that a focus on the social environment in AFCCs will increase social participation, even it is only low-key since older adults who feel involved in their living environment and have frequent contact with people in their neighborhood are more likely to participate (Buffel et al., 2014). Opportunities for social participation in frail older adults not only need to be made available but also should be effectively communicated to these individuals. Frail older adults should be informed of the availability of, for example, local service centers and the services offered by these centers. (WHO, 2015).

Our findings must be interpreted with caution and several limitations need to be acknowledged. First, this study is a secondary analysis of interviews that were conducted to answer a broader range of research questions related to frailty in later life. In order to overcome this limitation, we explored how well the data corresponded with the research questions by assessing the quality of the data through pre-analyses and discussion (Hox & Boeije, 2005). A second limitation of the study is the inclusion of older adults with possible cognitive impairment. The home-care organizations that were partly responsible for the recruitment of the participants in this study were asked not to refer to participants with moderate or severe dementia. The CFAI assesses subjective cognitive complaints to determine cognitive frailty and higher scores for cognitive frailty are associated with cognitive impairment (De Roeck et al., 2018). Thus, some of the participants may have had mild cognitive impairment or mild dementia. However, we believe that an impaired cognitive status of the participants may have been associated with the quantity of data obtained in the interviews but did not present an issue for the content of the responses from respondents. Third, given the vulnerable situation of the target group, a relative was allowed to be present during the interviews when requested by the participant. This may have created a possible source of bias as it might have encouraged socially desirable responses from participants. A fourth limitation is that the responses from the three participants requiring an interpreter during the interview may have been biased during translation. Finally, we used open-ended questions in our interviews about the influence of frailty on participation and the role of the environment and did not ask specifically about the elements that are used in the described theories or models. Quantitative or qualitative studies specifically on that topic would provide more information on this matter. Additional quantitative research could also clarify the relationship between lower levels of participation, such as low-key participation, and frailty outcomes as well as differences in age or gender. The key strengths of our study include the focus on frail older adults and the specific focus on their

social participation. While some earlier quantitative studies on frailty included measurement of just one type of social participation, such as social activities (Dent & Hoogendijk, 2014), this study is the first to explore a range of different types of social participation in a frail population.

In conclusion, this qualitative study was designed to gain insight into how frail older adults reason about their social participation and the factors that influence this social participation. Our findings show that due to functional decline and changing environments, older adults can disengage from their former activities. However, they compensate for the loss of these activities with other activities or are stimulated by their social environment in up taking other activities. Age-friendly policies that focus on the social environment aligned with the physical environment are crucial for healthy aging in frail older adults and their inclusion in the local environment.

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Table 1:

Table 1: Characteristics of participants.

Participant	Age	Sex	Marital status [a]	Country of origin	Total frailty	Cognitive frailty	Psychological frailty	Physical frailty	Social frailty	Environmental frailty
1	84	Female	Widowed	Belgium	++	++	++	+	-	++
2	85	Female	Married	Belgium	++	++	+	+	+	+
3	81	Female	Widowed	The Netherlands	++	++	++	+	+	+
4	81	Female	Widowed	Italy [b]	++	++	++	++	++	+
5	66	Female	Widowed	Turkey [b]	++	++	++	++	++	-
6	61	Female	Widowed	Turkey [b]	++	++	++	+	-	-
7	81	Male	Widowed	Belgium	++	++	+	+	+	+
8	86	Female	Widowed	Belgium	++	++	++	+	-	-
9	81	Female	Widowed	Belgium	++	++	++	+	+	+
10	81	Female	Widowed	Belgium	++	++	++	++	++	++
11	83	Male	Widowed	Belgium	++	++	-	++	-	++
12	66	Male	Divorced	Belgium	++	++	++	++	-	+
13	75	Female	Divorced	Belgium	++	++	++	+	++	++
14	79	Male	Divorced	Belgium	++	++	++	+	++	++
15	60	Male	Widowed	Belgium	++	++	++	+	-	+
16	91	Female	Widowed	Belgium	++	++	+	+	++	+
17	78	Female	Married	Belgium	++	++	+	+	++	+
18	85	Female	Widowed	Belgium	++	++	++	++	+	+
19	82	Male	Divorced	Belgium	++	++	+	++	+	+
20	72	Female	Widowed	Belgium	++	-	+	+	++	++
21	80	Female	Widowed	Belgium	++	++	+	++	+	++
22	*m*	Female	Never married	Belgium	++	++	-	++	-	++
23	86	Female	Widowed	Belgium	++	++	++	++	-	++
24	93	Female	Widowed	Belgium	++	++	++	+	+	-
25	84	Male	Divorced	Belgium	++	++	-	+	+	+
26	94	Female	Widowed	Belgium	++	++	-	++	+	+
27	78	Male	Widowed	Belgium	++	++	+	+	++	+
28	89	Female	Never married	Belgium	++	+	++	++	++	++
29	76	Male	Never married	Belgium	++	++	+	++	+	++
30	94	Female	Widowed	Belgium	++	++	-	++	-	++
31	74	Female	Never Married	Belgium	++	++	++	++	++	++
32	75	Male	Widowed	Belgium	++	++	++	-	++	+
33	69	Female	Divorced	Belgium	++	++	++	++	+	++
34	80	Female	Widowed	Belgium	++	++	+	++	+	+
35	80	Female	Widowed	Belgium	++	++	++	++	+	+
36	72	Male	Widowed	Belgium	++	++	++	+	+	++
37	92	Female	Widowed	Belgium	++	++	++	+	++	+
38	79	Male	Widowed	Belgium	++	++	+	++	-	-

[a] marital status as official registered, it was nonetheless possible for never married, divorced and widowed persons to have a partner, which is not registered here; [b] = interpreter present at the interview; ++ = high frail, + = mild frail, - = no – low frail, *m* = missing

Table 2

Table 2:levels of activities, derived from Levasseur et al. 2010.

Levels of involvement	**Examples from narratives of frail older adults**
Level 1 - Doing an activity in preparation for connecting with others (basic activities)	A couple of years ago, I fell. The doctor said: "The only thing you won't be able to do from now on is doing the dishes." Then I look at him and said "Man, we'll see about that when I get back home!" "No," he said, "You are going to leave those dishes, it will hurt your back, holding your hands in front of you…" Now, I have a lot of dishes to do, and sometimes I do them in three times. And it hurts, and it burns. Yes, then I take a break, I rest and afterwards I start again. (Divorced woman, 75 years)
Level 2 - Being with others (alone but with people around)	There are too many cars. I walk around and I try to go quickly to a bench. I sometimes go with the dog (Widow, 81 years old).
Level 3 - Interacting with others (social contact) without doing a specific activity with them	We were there (local service center) on Christmas. We had a nice chat with everyone. Everyone was happy, just being together (Married woman, 78 years old).
Level 4 - Doing an activity with others (collaborating to reach the same goal)	Next week, we are going to the theater with the people from next door. It has been too long since we did that. They bought the tickets and we are going in the afternoon (Widow, 86 years old).
Level 5 - Helping others	My neighbors upstairs, they are even older than me. I help them, I do their groceries (Widower, 78 years).
Level 6 - Contributing to society	No example was found