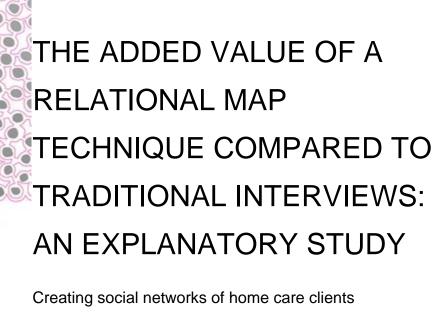
MASTER THESIS



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The added value of a relational map technique compared to traditional interviews

Creating social networks of home care clients

ABSTRACT

Motive

The elderly are the loneliest age group in the Netherlands; their social networks consist of fewer social relations than those of other age groups. There are various research methods for studying social networks, not all of which are appropriate for an elderly target group. It has been found that elderly people prefer visual information; therefore visual research methods may be the best for studies involving this target group.

Goal

In this study two research methods, the relational map and the interview, were compared in order to determine how the information gathered (the results obtained, participants' past experience with the methods, and participants' opinions on the methods), differed between the two methods when investigating social networks. The second goal of the research was to identify the social network characteristics, such as type of relations and frequency of visits, for the target group. A third method, diaries, was used as a control method.

Methods

Relational mapping sessions and traditional interviews were conducted in order to answer the research questions. The participants were divided into two groups. One group experienced a relational mapping session and the second group an interview. Participants from both groups also kept a diary for a week.

Results

The social networks of the home care clients in this study consisted of an average of six social relations, mostly family. Family contributes to emotional support, while paid workers deliver more functional support.

Results of the comparison of the methods are based on content, the experiences of participants, and the time duration of methods. The content of the relational maps and interviews was quite similar, although when comparing the outcomes of the relational map session and the interviews with those of the control method of diaries, content in the interviews and diaries was found to have more similarities than the content in the relational maps and diaries. Participants had prior experience with interviews, but not with relational maps. No differences were found in the time duration of the two methods.

Discussion

The expectation was that elderly people would prefer the relational map process to interviews. The content between interviews and diaries stayed more consistent, while in the relational maps participants initially reported being more satisfied with their social relations than they did later in a real-time diary. Participants had more prior experience with interviews, while relational maps were unfamiliar. These are good reasons to use interviews as a research method to study social networks of elderly. However, the relational map is also a useful method for this target group. The participants understood the method; as it is quite simple, it does not matter if participants have no prior experience with it.

Keywords: social networks, home care clients, interviews, diaries, relational map, comparison methods

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1. INTRODUCTION

The elderly are the loneliest group of people in the Netherlands (Schoenmakers et al., 2014). The solution to loneliness is to expand one's social network, which is not an easy task for elderly people. (Dykstra, 2009). While loneliness is a problem, the number of seniors has also been rising in recent years. The significant increase in life expectancy leads to concerns about increasing the quality of life of seniors. An aging population leads to an increase of people over the age of 65, but there is also a rising number of people aged 85 and over. This aging problem increases the demand for intensive healthcare and home care. Not all research methods are appropriate for the target group of home care clients. For instance, they face problems with their memory and hearing. It has been found that elderly people prefer visual information (Robben et al., 2012), thus visual research methods may be the best method for studying the elderly.

Various research methods are used to study social networks, which consist of the social relationships in a person's life. These relationships change in character over the course of one's life, and reflect an individual's personal life history and sociocultural context (Park et al., 2013). Various social network characteristics can be measured, such as frequency of visits, type of support, and the importance of a social relation. Several methods and instruments are used to study social networks, including the Network of Relationships Inventory (NRI) (Furman and Buhrmester, 1985). In addition to familiar research methods, there are also methods, such as art-based methods, that are less frequently used. Art-based methods help to facilitate gathering information about life experiences and social relationships from individuals, such as children, for whom using words may be challenging (Sheridan et al, 2006; Bagnoli, 2009; Driessnack, 2006). One such art-based method, used by Bagnoli (2009), is the relational map. In this method, the participant draws his or her own visible social network.

In this study, two research methods, the relational map and the interview, will be compared in order to determine how the information, results and experiences, gathered differs between them. With use of the relational maps and interviews, social network characteristics of home care clients will be explored. This study make use of a third method, diaries, which will be used as control method. Because this study provides new insight into the use of verbal and visual techniques, it will contribute to the social science literature in which as yet little information is available about comparisons of art-based techniques and interviews methods specifically. To remedy this gap in the literature, the researcher attempted to uncover social networks by means of a unique approach: a combination of the art-based method of relational maps and traditional interviews.

This research was conducted in a specific research context, among clients of the company TSN Thuiszorg (TSN). As a result of several mergers in recent years, TSN has become the largest home care organization in the Netherlands. The total number of caregivers in the field is 15,000, differentiated into 50 local departments. TSN has grown to server 50,000 home care clients, who receive for the most part domestic help and assistance with health care. The largest part of TSN's business is providing domestic help.

Based on the literature, the following research questions were formulated:

- 1. What are the characteristics (i.e. type of relations, frequency of visits, importance of relations and type of support) of the social networks of home care clients?
- 2. What is the added value of a relational map technique compared to traditional interviews in mapping a social network with elderly home care clients?

The first question is focused on the content of the research because it is a question specifically focused on the target group. The second question is a methodological one because it focuses on the two research methods that will be compared.

Chapter 2 of this thesis provides the theoretical framework for the study via an overview of the literature concerning relational mapping and interviews as research methods. The procedure, design and advantages and disadvantages of the two methods are compared, and the research questions that were formulated based on the literature review are presented. Chapter 3 explains the research method, including the procedure, instruments, participants, and data analysis. Chapter 4 presents the results of the research. Chapter 5, the conclusion, consists of a discussion of the results and limitations of the research, suggestions for future research, and practical implications of the results for organizations.

2. THEORETICAL FRAMEWORK

2.1. Elderly people and research methods

Victor et al. (2000) argued that the relationships people have in their lives change after the age of 65. In old age, society and older individuals generally expect changes in the balance and nature of support exchanges (Park et al., 2013). These relationships change as people progressively give less and receive more from their relationships as they age (Antonucci, 2001; Antonucci & Akiyama, 1995). People receive different types of support from their social relationships. Victor et al. (2000) argued that family helps more with long-term caregiving, while friends are more important for emotional support. Frequency of interaction has often been used as a measure of social support (Seeman & Berkman, 1988). Because the focus of life is changing for the elderly, these people are the loneliest age group in society. The social networks of elderly people are family-dominated and consists of fewer friends than those of other age groups. As mentioned above, a social network consists of a web of social relationships that surround an individual and the characteristics of those ties, which change during a person's life and reflect their personal life history and sociocultural context. The literature describes several instruments for analysing social networks, including verbal methods, such as interviews or focus groups, specific questionnaires such as the Network of Relationships Inventory (NRI; Furman & Buhrmester, 1985), and visual research methods such as the graphic elicitation techniques studied by Bagnoli (2009).

Elderly people tend to have complex medical problems that influence the way they process information. For example, visual changes associated with aging have an impact on people's ability to process a message. Rapid presentation of images may create overlapping memory traces and cause confusion in elderly persons, which can decrease their motivation to process a message (Spotts & Schewe, 1998). On the other hand, Robben et al. (2012) found that elderly patients prefer visual information. In addition, the hearing acuity decreases, which means that people are unable to hear everything. Finally, long-term and short-term memory problems occur which means that people are not capable of remembering things. Repeating information for elderly, and writing down information for them (Robben et al., 2012) can both increase understanding.

Because of these limitations, certain research methods will be able to provide more information than others when studying the elderly. In light of the fact that elderly people prefer visual information, visual research methods could be particularly useful. One type of visual research method is the relational map, which is a graphical elicitation technique (Bagnoli, 2009). This method was chosen as one of the methods to be investigated in this study. In interviews information could be repeated by the researcher in order to achieve more understanding by the participant. In addition to allowing for the repetition of information, interviews are also a method that is very familiar to participants (Downs and Adrian, 2004). Because of these characteristics, interviews were chosen as the other research method to study with this target group. Diaries will be used as a control, while diaries help participants to recall events accurately.

2.2 Relational maps

Visual research methods are methods that use visual materials of some kind as part of the process

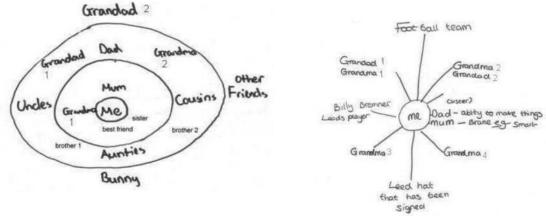
of generating data with which to investigate research questions (Rose, 2013). One type of visual method is art-based methods. Recent studies using art-based visual research methods have involved photographs (Crilly et al., 2006), relational maps, timelines, self-portraits (Bagnoli., 2009), films (Murray, 2009; Pink, 2007), video-diaries (Holliday, 2000, 2007), collages (Mannay, 2010; O'Connor, 2007), maps (Spencer, 2011), memory books (Thomson and Holland, 2005), drawings (Garner, 2008), graphic novels (Galman, 2009) and photo-diaries (Latham, 2004). As can be seen from the length of this list, there are many possible varieties of art-based visual research methods.

Art-based research is an umbrella term that includes a variety of different methodologies employing some art form (Finley, 2008). The methods or approaches facilitate the elicitation of information from participants about social relationships and life experiences. Art-based methods are often used in research with children, since such young participants may not be able to express themselves adequately in words (Sheridan et al, 2006; Bagnoli, 2009; Driessnack, 2006). Varga-Atkins & O'Brien (2008) defined a subset of art-based methods that ask research participants to draw. They called these methods *graphic elicitation techniques*. While the use of graphic elicitation techniques for qualitative data gathering has so far been limited, it appears to be growing (Umoquit et al., 2011). These techniques can be useful in helping participants to express complex or abstract ideas or opinions in maps or diagrams (Varga-Atkins & O'Brien, 2008).

2.2.1 Design

Figure 3 shows two examples of a relational map drawn by a child. The design consists of several circles, with the circle in the middle representing the participant, meaning that the participant is the most important person in the relational map (Copeland, 2012). Participants draw their own social network as a relational map. The relational map is used in psycho-social research because drawing techniques are helpful combined with interviews or non-graphic techniques in order to yield deeper, more complex data (Copeland, 2012).

Figure 3: Relational maps (Bagnoli, 2009).



2.2.2 Procedure

The information in a relational map represents a decrease in value when moving from the center toward the outer zone (Copeland, 2012). For example, when the children of participants are very

important to them, people place them closer to their own circle. In contrast, if children are not very important in their social network, people place them farther away from their own circle. In the relational maps in Figure 3 some names are hand-written and others typewritten because the researcher can use the relational map in many ways. There could be a template structure provided, or participants could draw their map by themselves. As can be seen, the two relational maps differ in structure and appearance.

2.3 Interviews

Interviews are verbal report procedures, and are often used in qualitative research. Recent studies of verbal methods have made use of interviews, which are dominant research methods in, for instance, clinical research (Babor et al., 1987).

2.3.1 Design

An interview is defined as a meeting of people face-to-face, especially for conversation (Downs and Adrian, 2004). There are various types of interviews, distinguished by their structure, the topic(s) of conversation, and whether or not answer possibilities are fixed. The most commonly used type of interviewing is the semi-structured interview, in which there are some fixed-answer questions but mostly open-ended questions. Interviews provide in-depth information about participants' experiences and opinions on a particular topic. Interviews are often coupled with other forms of data collection in order to provide the researcher with a complete collection of information for analysis (Turner, 2010). Interviews can be conducted in several settings, such as face-to-face, by telephone, or by email.

2.3.2 Procedure

When using a semi-structured interview there is need for some prepared questions. Interviews are based on a protocol that require a set of questions to collect the information needed. These questions will facilitate an exploration into each topic. The focus must be on open questions rather than closed questions that restrict the interviewee to a few possible answers (Broom, 2005). A literature review can help to provide guidance as to some possible topics, while other topics will develop from experience (Broom, 2005). Interview protocols are seldom perfect as first drafted, and it is necessary to test the draft protocol, preferably with a pilot study consisting of a couple of interviews. This will reveal whether the planned questions retrieve the data needed (Broom, 2005). After the pilot study the interview protocol needs to be updated and is ready for using it in the field.

2.4 Comparison of relational maps and interviews

In this study, relational maps and interviews are compared as data-gathering methods in terms of the design, procedure, and pros and cons of each method. The two research methods were chosen because of their appropriateness for the groups to be studied, and differ from one another in several ways.

2.4.1. Design & procedure comparison

Relational maps are type of an elicitation technique in which *elicitation* refers to the process of eliciting the required data from the interviewee. Interviews are a verbal research method. Elicitation techniques are not only verbal but can also be visual (Varga-Atkins and O'Brien, 2008). Copeland et al. (2012) characterized the relational map as a relatively free method; as described above sometimes a template is provided, but sometimes the participant is free to create their own map structure. In contrast, semi-structured interviews are limited to an interview protocol (Copeland et al., 2012).

The relational map and interviews are both often used in research with children (Copeland et al., 2012). However, one difference is that the relational map process employs a visual task (drawing) which can help to reduce the tensions between interviewers and children, by giving the children an activity that is familiar to them (Wall and Higgins, 2006). Relational maps are most often used in psycho-social research, while the interviews are the tool most widely used to gather data in social research (Verga-Atkins and O'Brien, 2008).

Finally, the literature on interviews indicate that a pilot study is required, because interview protocols are not perfect from the start (Broom, 2005). In contrast, the literature on relational maps did not provide information about the need for a pilot study.

2.4.2 Comparison of pros and cons

Table 1 presents the pros and cons of the relational map and the interview methods.

Table 1: Pros and cons of relational maps and interviews

Pros: Relational maps

The relational map prompts different thinking about topics and may elicit information that would otherwise possibly remain unknown (Bagnoli, 2009).

- The process can open up participants' interpretations of questions and allow a creative way of interviewing that is responsive to participants' own meanings and associations (Bagnoli, 2009).
- As participants draw they become more aware of their thoughts, opinions, and emotions (Copeland and Agosto, 2012).

Pros: Interview

- Interviews are a familiar method (Downs and Adrian, 2004).
- Interviews achieve a fuller discussion because people say more in an interview than in a survey (Downs and Adrian, 2004).
- Interviews create serendipity; when asking questions often more information pops up (Downs and Adrian, 2004).
- Interviews have an organic structure (Downs and Adrian, 2004).

Cons: Relational map

- The assumption is made that people see themselves as the center of the relational world, while some people, without input for placing themselves in the middle of the paper, have not placed their selves in the middle (Bagnoli, 2009).
- A problem could be that there are people that have no relationships and are in fact alone in the world (Bagnoli, 2009).
- This method might make sense within the context of the study, but may not actually be of the most significance to the participant on a subjective level (Bagnoli, 2009).
- Some people could feel uncomfortable when asked to create drawings (Jamert-Gray et al., 2014).

Cons: Interviews

- Interviews are non-anonymous (Down and Adrian, 2004).
- Interviews are very time consuming (Down and Adrian, 2004).
- Interviews are more focused on in-depth information like understanding phenomena, and focus on the how and why of a particular issue rather than making generalizations to a larger population (Down and Adrian, 2004).
- Interviews are difficult to analyze (Down and Adrian, 2004).

Interviews are focused on obtaining in-depth information about the thoughts, behaviors, and experiences of participants (Downs and Adrian, 2004). However, relational maps help participants to express complex or abstract ideas or opinions by drawing diagrams or maps, which also provides indepth information. Relational maps also do something more than provide in-depth information; the process of drawing a relational map can open up participants' interpretations of questions and can be seen as a creative form of interviewing. Therefore, the map will produce in-depth information in a more creative way than interviews (Bagnoli, 2009), and with this method people will be more aware of their thoughts, opinions and emotions (Copeland and Agosto, 2012). On the other hand, fuller discussions are possible in interviews.

Downs & Adrian (2004) argued that interviews are a much more familiar research method for participants (Downs & Adrian, 2004). This could be an advantage in comparison to relational maps, especially because relational maps can encounter problems if they elicit uncomfortable feelings in participants as they draw (Jamert-Gray et al., 2014).

Interviews are a very time-consuming method, in which not only the interviews themselves take lots of time, but the analysis of the interviews is difficult and time consuming (Downs and Adrian, 2004). The literature on relational maps did not provide information about the time required for the process itself and for analysing the data.

Both methods face some problems in terms of the focus of the research. Interviews are more focused on the depth of information—knowing the how and why of a particular issue—rather on than making generalizations to a larger population (Downs and Adrian, 2004). The relational map, on the

other hand, does lead participants to consider their lives in ways that might make sense within the context of the study, but are less focussed on the individual participant (Bagnoli, 2009). Therefore, relational map data could be more focused on generalizations than the results of interviews, and conversely, interviews could provide more focus on the individual participant.

There are several factors mentioned in the overview presented in Table 1 that do not differ between the two methods. Interviews create serendipity, but additional questions can also pop up when using a relational map. Interviews are non-anonymous because there is a contact moment with the participants, and this is also the case with relational maps. Finally, drawing the map could identify participants who are in fact alone in the world, but this is also true of interviews when asking about social relations.

Considering all of this evidence, it seems that it could be expected that the elderly clients would prefer a visual research method. The relational map is more visible, which encourages one to think differently about issues. However, this would hold true only when the participant has good visual acuity. The relational map provides in-depth information in a creative way, and encourages the participants to think differently about specific issues. However, drawing a relational map could be too difficult for elderly people who have memory issues. In interviews, the researcher has the possibility to repeat questions to improve the understanding of the respondent. Relational maps have been used frequently with children, but they have not been used with elderly people. Interviews are a more familiar activity, and more interesting for the participant. Relational maps face problems in that they focus on the context of the study, but are less significant in terms of the participant. It remains unknown whether interviews are more time-consuming than relational maps. Based on the literature, there is an expectation that both relational maps and interviews will result in in-depth information, but relational maps may discover some different information than interviews.

2.5 Diaries

Diaries are a real-time method that involves the collection of data that is typically written down by participants over time. Participants could have memory issues, and diaries can help participants to recall events accurately. Robben et al. (2012) found that repeating information to the participant and writing it down improves the understanding of information for elderly people. Many research methods could be used in a real-time way. Diary research is a commonly-used technique for studying networks and collecting data about the participants' activities during a specified period (Goldhaber, 1993).

Regarding the reliability of diary research, there is one primary concern: diary-based studies are restricted to a short period of time. It is always doubtful whether the time frame is representative enough for generalization of the research results. For instance, there may be variation in the activities of a participant during specific periods of time. It must also be emphasized that keeping a diary is a form of self-report and may therefore be subject to socially desirable answers. Jones and Wooley (2014) pointed out that diary studies are very time-consuming. Finally, diarists could be unwilling to record all their activities, or may reduce the burden of recording by altering their activities. The completion rate of diaries is higher early in the process than at later dates (Jones and Wooley, 2014).

Besides many disadvantages, diary studies also provide advantages. Diaries are very private, which means that they can yield more personal information than less private methods (Jacelon and Imperio, 2005). Diaries are often used in health research because they provide information about daily health activities (Jacelon and Imperio, 2005; Broom et al, 2013). Participants could be familiar with diaries because they are more used in health care. For this research, the use of short-term memory is the main advantage of diaries. Since the target group of this research is over the age of 65, they could be having memory issues. By using short-term memory they are able to record their activities directly in their diary, which avoids information loss (Jones and Wooley, 2014).

Diaries concentrate on daily activities and are useful to the target group because diaries make it easier to recall important information, but there is a need for a good understanding of what to expect from the participants.

2.6. Summary

Research into the social networks of older people is limited. As people age, both they and society generally expect the balance and nature of support exchanges to change (Park et al., 2013). Their relationships change as their health declines and they are able to give less to and yet receive more from a relationship (Antonucci, 2001; Antonucci & Akiyama, 1995). The primary focus of this study is the characteristics of the social networks of home care clients. Based on the literature following main research question was created, which is focused on the research context:

MQ1 What are the characteristics (i.e. type of relations, frequency of visits, importance of relations and type of support) of the social networks of home care clients?

In order to answer this question several sub questions will be investigated:

SQ1: How many social relationships in different social contact categories do participants have, and how frequently do they visit the participant?

SQ2: What type of support do social relationships provide to the participant, and how important are these social relations?

Social networks can be studied with a variety of research methods, but not every method is useful for studying the target group for this study. Two methods, relational maps and interviews, were chosen for this research. Diaries were used as a control. The relational map was chosen because the target group of this research prefers visual information. The interview was chosen because it is a method that is very familiar to people, which could be an advantage. It would be interesting to know if visual method such as relational maps will provided added value in comparison with interviews. Little information is available about comparisons of research methods in general, and about art-based techniques in particular. Because of this gap in the literature, the researcher attempted to uncover social networks by means of a unique approach: a combination of the art-based method relational maps and traditional interviews. Based on the literature, the following second main question and sub-

questions were formulated, which are more focused on the methodological side of this study:

MQ2 What is the added value of a visual research method in mapping a social network with elderly home care clients?

This question could be answered by using the following sub questions.

SQ3: To what extent will relational map and interview outcomes differ in content?

SQ4: To what extent will relational map and interview outcomes differ in terms of participant experiences?

SQ5: To what extent will relational map and interview outcomes differ in terms of total duration and duration of personal stories?

3. METHODS

3.1 Procedures

In this paragraph the procedures for the relational maps, interviews and diaries are presented.

3.1.1 Procedure relational maps

The relational map participants were selected from a list of TSN clients. There was permission from TSN to call clients by phone to invite them to participate in the research. Many clients were called, but many of them were not interested in participating. There also were clients that indicated a desire to participate at first, but later cancelled the appointment. Eventually, thirteen participants were selected for the relational map study. After the telephone conversation, a letter is sent to the participant containing information about the study and confirming the appointment.

Thirteen participants participated in the relational map condition (N = 13). Before the participant began creating the relational map more is explained about the research, the goal of the research, anonymity, and the process of creating the relational map. It was important that the participant understand the method in order to give a reliable opinion about it. The relational map forms were printed in poster format on A3 size paper. Because in the pre-test the participant preferred it when the researcher filled in the relational map this was done in all cases in order to create better conditions for generalization. The participants were asked to identify all their social relations, and place them in a circle on the relational map based on the level of importance to them of that relationship. In essence, participants projected their own social network onto the map. This method created a visual social network with degrees of distance in the relationships. The researcher asked the participants why social relations were marked as important in order to elicit more information. After completing the relational map, some additional questions were asked about the participant's experience of the method.

The information in the relational maps was used anonymously. The interviewer has guaranteed that names of relations and personal information will not be made available to TSN.

3.1.2. Procedure interviews

The interview participants were selected from a list of TSN clients. The researcher called the clients and asked if they were willing to participate. Finally, thirteen participants were selected for the relational map study. Participants received a letter with information about the study and confirming the appointment.

Before starting the interview is described, the research purpose, anonymity, and the process of the interview. It was important that the participant understand the method in order to give a reliable opinion about it. Thirteen participants participated in an interview; these were not the same thirteen participants who participated in the relational map condition. The interviews were semi-structured. The semi-structured interview format allowed the participants to answer more completely than in a more structured interview, because it consists of only a few topic themes and not fixed questions (Down and Adrian, 2004). The interviews were divided into two sections: the first section consisted of questions

about the social network of the client, and the second of questions regarding the participant's experience of the method.

The information in the interviews was used anonymously. The interviewer has guaranteed that names of relations and personal information will not be made available to TSN.

3.1.3 Procedure diaries

The real-time diary was kept during one week, which meant the participant was required to fill in the diary for a stretch of seven days. Within these seven days participants recorded who came to visit them. Diaries provided clues as to the importance of events for the participants and their attitudes about those events (Jacelon & Imperio, 2005). The participants received the diary instructions after completing the interview or a relational map with the researcher. The researcher returned to the participant to collect the diary after a week. The information in the diaries was used anonymously. The interviewer has guaranteed that names of relations and personal information will not be made available to TSN.

3.2 Instruments

In this paragraph presents the instruments used in this study.

3.2.1 Instrument relational maps

The relational map form consisted of a fixed scheme with three fixed empty zones, which can be found in Appendix 2 (Bagnoli, 2009). The respondent was represented by the circle in the middle, which means this person was most the important one in the relational map (Copeland, 2012). Respondents drew their own social network on this form. As mentioned earlier, the information in the maps represented a decreased value moving from the center toward the outer zone (Copeland, 2012). The questions about the experience of the respondent were asked after they completed the relational map. These questions were based on knowledge about the research methods and their advantages and disadvantages, as discussed in the literature review. In the relational maps respondents were asked about their emotions regarding their social relations. This emotion was measured with the use of stickers representing a pictorial mood scale. The stickers representing a five-point scale from *very happy* to *very unhappy*. The outcomes were compared by means of these stickers. The questions asked about the respondent's experience with the relational map method can be found in Appendix 2.

3.2.2 Instrument interviews

The main goal of the interview was to collect sufficient data to answer the main questions. The topic list was based on the research questions and current knowledge about social networks and research methods, as was discussed in the theoretical framework. The full set of questions for each of the topics can be found in Appendix 1 (please note that these questions are in Dutch). An additional form was created by the researcher to quickly fill in social relations that participants mentioned. This form provided guidance during the interview, and can be found in Appendix 4. In the interviews participants were asked about their emotions regarding their social relations. This emotion was

measured with the use of stickers representing a pictorial mood scale. The stickers representing a five-point scale from *very happy* to *very unhappy*. The outcomes were compared by means of these stickers.

3.2.3 Instrument diary

The diary instrument was created with the support of the relational map and interview questions because the goal of the diary study was to provide a control for the outcomes of the maps and interviews. The diary questions focused on visits by social relations, and the full text of the questions can be found in Appendix 3. In all methods participants were asked about their emotions regarding their social relations. This emotion was measured with the use of stickers representing a pictorial mood scale, which were affixed to the diary entry. For all the conditions these stickers were the same, representing a five-point scale from *very happy* to *very unhappy*. The outcomes were compared by means of these stickers. Other questions in the diary were focused on the goal of the visit and the duration of the visit.

3.3. Participants

The target group of this study were clients (N = 26) of the home care organization TSN. The participants were receiving domestic help from TSN, which meant that a TSN employee cleans their house. TSN delivers several different types of home care, but as domestic support is TSN's core business, this type of care was considered to be the most reliable for study. The interviews and relational maps were scheduled during the day and took place in the living room of the participant, which encouraged participants to give open and honest answers (Öberseder, Schlegelmilch & Gruber, 2011).

Participants met some specific criteria in order to participate in the study, and also had to be able to answer questions about their social network and have sufficient memory to answer the questions. The participants were selected based on their place of residence; all participants lived in Zwolle, in the Aa-Landen district. The next criterion involved the living situation of the participant: they needed to live alone. A total of thirteen (N = 13) participants participated in an interview and another thirteen (N = 13) in the relational maps, of which eight (N = 9) were women and four (N = 4) were men for both conditions. This research included participants ranging in age from 67 to 93 (M = 81.6, SD = 7.3).

For the diaries, participants were the same ones that participated in the interview and relational map conditions (N = 26). The sample consisted of eighteen women (N = 18) and eight men (N = 8).

3.4 Data analysis

The procedure for data analysis depended on the method used. The first data analysis was done with the use of SPSS 20. In SPSS, data were structured and tables could be created in order to obtain an overview of all information. Because interviews were included, a qualitative analyse was also done to add additional information and fragments of the interviews to the results.

3.4.1 Relational map

The relational map data was collected together with the participants at their residence. The data collected with the relational map were tested in one pre-test with a client before starting the creating of the maps with the actual participants. The conversation was recorded with a mobile phone so it could be played back for transcription. The creation of the relational map and the conversations were fully transcribed. After transcribing, the information from the relational map conversations was added into SPSS 20. In SPSS two data files were created, one containing the information about the social relations and one containing the information about the participants' experiences of the methods. Additional quotes from the transcriptions were used in order to give a more complete overview of the experiences of the methods.

3.4.2 Interviews

The interviews were conducted in a home situation and were first tested with one pre-test to make sure the questions resulted in valid answers. The conversations were recorded with a mobile phone so they could be played back for transcription. The interview questions were imported into SPSS 20, into the same data files as the relational map data to achieve a reliable comparison. Some quotes of participants were used to elaborate some results. The data could not be perceived as normally distributed because of the small number of participants (N = 26). The results of the questions regarding the participants' experiences of the methods were tested with the Mann-Whitney U Test in order to determine if there were differences between experiences with the two methods.

3.4.3. Diary

The participant filled in the diary for one week after the collection of the interview or relational map data. After a week, the interviewer retrieved the diaries from the participants. The information from all twenty-six diaries was collected in one document with all variables in order to compare it with the information from the interviews and the relational maps. The relevant information from the diaries were the type of social relations and the emotion that was assigned towards this person. This data was also included in the SPSS files, which made it possible to compare the data quickly with the results of the interviews and the relational maps.

4. RESULTS

In the following section, first the results regarding the overall social network characteristics of home care clients are presented. Following that, present the results regarding the differences in outcomes for the relational maps and interviews. Finally, results regarding the differences in outcomes for the relational map, interviews and diaries are presented.

4.1 Social network characteristics of home care clients

First, an overview of the general characteristics of the social networks of home care clients will be presented. These results are based on both the interviews and the relational maps.

4.1.1. Social relations categories and frequency of visits

The participants (N = 26) mentioned a total of 160 social relations divided among three social relation categories: family, friends and relatives, and paid employees. Table 2 presents the results for each category. It is apparent from the table that the largest number of contacts are family (46%), second are friends and relatives (33%) and finally, paid employees (22%). The category *family* includes, for instance, children. Participants were asked to indicate whether individuals are very important, important, or less important in their lives. Many participants mentioned their children first. One interviewee commented: *"in the first place my daughters, my children"* (participant 26, relational map). The category *paid employees* consists of several employees; one example is the home care employee. Participants listed all their social contacts during the interview or creation of the map. The home care employee was mentioned by twelve participants on their own, the other fourteen participants did not mention the home care employee spontaneously.

The participants indicated how frequently social relations came to visit them on a 5-point scale of every day, every week, every two weeks, every month, and other. The response 'other' indicates that the person does not frequently visit the participant. For example, one interviewee said: "we see each other on anniversaries" (participant 1, interview). In Table 2 a comparison is shown between the frequency of visits and the social contact category. Interestingly, the only social relations to visit a participant every day were three paid workers (9%). Most of the paid employees work with the participant every week (N = 26, 74%). Nearly all friends and relatives visit the participants every week (N = 18, 35%) or every month (N = 11, 21%). Family members are most often listed, although family members do not visit the participants very often.

Table 2 Category of social relation and the frequency of visits

Frequency of visits						
	Every day	Every week	Every two weeks	Every month	Other	Total # of social relations
Family	0 (0%)	16 (22%)	9 (12%)	17 (23%)	12 (16%)	73 (100%)
Friends and	0 (0%)	18 (35%)	8 (15%)	11 (21%)	13 (25%)	52 (100%)
relatives						
Paid employees	3 (9%)	26 (74%)	5 (14%)	0 (0%)	1 (3%)	35 (100%)
	Friends and relatives	Family 0 (0%) Friends and 0 (0%) relatives	Every day Every week Family 0 (0%) 16 (22%) Friends and 0 (0%) 18 (35%) relatives	Every day Every two weeks Family 0 (0%) 16 (22%) 9 (12%) Friends and 0 (0%) 18 (35%) 8 (15%) relatives	Every day Every weeks Every two weeks month Family 0 (0%) 16 (22%) 9 (12%) 17 (23%) Friends and 0 (0%) 18 (35%) 8 (15%) 11 (21%) relatives	Every day

4.1.2 Importance of social relations

Table 3 provides an overview of the level of importance of social relations. Participants who participated in this study categorized their contacts into the categories very important, important and less important. For many participants family was described as being *very important* to them (N = 46, 63%). Most friends and relatives (N = 29, 56%) were just *important*, while most paid employees are mentioned as *very important* (N = 20, 57%).

Table 3 Level of importance sorted by social relation category

		Level of i	Level of importance of social relation				
		Very important	Important	Less important	Total # of social relations		
Social	Family	46 (63%)	25 (34%)	2 (3%)	73 (100%)		
contact category	Friends and relatives	19 (36%)	29 (56%)	4 (8%)	52 (100%)		
3 ,	Paid employees	20 (57%)	15 (43%)	0 (0%)	35 (100%)		
Total	# of social relations	85	69	6	160		

4.1.3 Emotions assigned to social relations

The participants affixed smiley stickers indicating the emotions associated with that person to the social relations they mentioned in the relational maps and interviews. Table 4 provides an overview of the emotions assigned to social relationships. The majority of social relations were positively assessed. There were no participants who were very unhappy when someone visits them.

 Table 4 Emotions assigned to social relations

		Level o	of importance soc	ial relation	
		Family	Friends and relatives	Paid employees	Total # of social relations
Emotion by	Very happy	32 (51%)	20 (32%)	11 (17%)	63 (100%)
social contact	Нарру	37 (45%)	27 (33%)	18 (22%)	82 (100%)
Contact	Neutral	4 (29%)	4 (29%)	6 (43%)	14 (100%)
	Not happy	0 (0%)	1 (100%)	0 (0%)	1 (100%)
	Very unhappy	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Total #	of social relations	73	52	35	160

4.1.4. Emotional and functional support

Social relations provided different types of support for participants. Two functions were distinguished: emotional and functional support. A total of 47 social relations delivered emotional help, which means that the participant is emotionally dependent on this social relation. The family contributes most to emotional help (49%). Functional support is more often provided by paid employees, such as home care employees (N = 29, 71%). Only two out of 52 (5%) friends and

relatives provided functional support. All the data for emotional and functional support are presented in Table 5.

Table 5 Overview of social categories who provide emotional or functional help

	Social relation category					
	Family	Friends and relatives	Paid employees	Total of social relations		
Deliver emotional support	23 (49%)	17 (36%)	7 (15%)	47 (100%)		
Deliver functional support	10 (24%)	2 (5%)	29 (71%)	41 (100%)		

4.2 Differences between the relational maps and interviews

This section presents only the differences between the results from the relational maps and the interviews. First, the differences in emotion by social relation are compared between relational maps and interviews. Second, the duration of the two methods is compared, inclusive of the duration of personal stories told in the conversation. Finally, the evaluations of the methods by participants are presented.

4.2.1 Differences in emotions mentioned in interviews and relational maps

In Table 6 the emotions are presented by method. The results of this comparison show that the numbers of social relations mentioned in the different emotion categories did not differ between interviews and relational maps. Most participants are simply happy when a social relation visits them.

Table 6 Emotions mentioned in interviews and relational maps

Emotion		Type of method		
		Interview	Relational map	
	Very happy	32 (39%)	31 (40%)	
	Нарру	42 (51%)	40 (51%)	
	Neutral	8 (10%) [´]	6 (8%)	
	Not happy	0 (0%)	1 (1%)	
	Very unhappy	0 (0%)	0 (0%)	
Total # of social relations		82 (100%)	78 (100%)	

4.2.2 Method duration and personal stories

Table 7 provides a summary of the specific duration times for administering the interviews (N = 13) and the relational maps (N = 13). Interviews took an average of 36.2 minutes. The shortest interview lasted 15.3 minutes, while the longest took 57.1 minutes (SD = 14.3). The relational maps took an average of 36.7 minutes, which is a very small deviation from the average interview length. The shortest conversation was 22.3 minutes, while the longest lasted 58.2 minutes (SD = 11.7).

Differences in duration were tested with the Mann-Whitney U Test. The test indicated that there was no significant difference between the duration of the interviews and the duration of the relational map sessions (U = 76.0, p > .663) at a p = .05 levels.

Personal stories in the interview condition varied in length from 0 minutes to 34.3 minutes, with a mean of 11.8 minutes (SD = 12.2). Personal stories in the relational map condition ranged in length from 0 minutes to 39.6 minutes (SD = 12.7). The interviews had a lower minimum duration for personal stories than did the relational map sessions. The relational map condition included more personal stories (M = 14.7) than did the interview condition (M = 11.8). The differences in the length of the personal stories told in interviews and relational map sessions were also tested. Mann-Whitney U Test results indicated that there is no significant difference (U = 71.0, p > .487) in duration between the two conditions at a p = .05 level.

Table 7 Total duration of personal stories in interviews and relational map sessions

	N	Minimum	Maximum	Mean	Std. Deviation
Total duration: Interview	13	15.3	57.1	36.2	14.3
Total duration: Personal stories in interviews	13	.00	34.2	11.1	12.2
Total duration: Relational maps	13	22.3	58.2	36.6	11.7
Total duration: Personal stories in relational map sessions	13	.00	39.5	14.7	12.8

4.2.3 Evaluation of the methods by participants

This section presents the results of the method evaluations by the participants. The participants were asked about their opinion on the method, its understandability, level of time duration, level of uncomfortable feelings, level of feeling heard, and prior experiences with the method. First, the factors with interesting results are presented, followed by the factors with no differences. Table 8 provides an overview of the differences in evaluation factors.

Table 8 Overview of differences in evaluation factors

Evaluation factor	Significant difference between the relational map
	and interviews (tested with Mann Whitney)
Opinion on the method	No
Level of being heard	No
Prior experience with the method	Yes
Level of understanding	No
Perceived time duration	No
Uncomfortable feeling	No

Opinion on the method

Participants provided their opinion about the method after they finished reporting on their social network, results are presented in Table 9. There are few differences between the relational maps and

the interview conditions. One participant rated the interview as *very nice* while for the relational map condition zero participants rated it as *very nice*. There are no remarkable differences to distinguish between the opinions of the participants on the two methods. The average scores on the opinion on the method are equal, with the interview condition having an average rating of 2.2 (SD = 0.55) while the relational map had an average rating of 2.2 (SD = 0.44) on a five point scale from *very nice* to *very unpleasant*. Differences in the opinion on the methods were tested using the Man Whitney U Test, which found no significance (U = 79.5, p = .740). This means that there were no differences found between the rating of the method for the interview and the relational map conditions.

There were some interesting thoughts of participants about the relational map condition: for instance: "It was very interesting, also because I can tell you what I want to tell" (Participant 18, relational map); and "Because of the scheme I can see what people I have in my surroundings, otherwise you are leaving and I will forget everything, now I won't" (Participant 18, relational map). About the use of emotion stickers to evaluate social relations, one participant commented: "Oh, it is nice and especially those puppets {laughing}" (Participant 5, relational map).

One participant said about the interview: "Well, It was actually a bit as expected as a result of your letter" and 'It is not interesting for myself, I already know my story but I hope it is interesting for you" (Participant 4, interview).

Table 9 Opinion on the methods

Opinion on the method		Method used		Total # of participants
		Interview	Relational map	
	Very nice	1	0	1
	Nice	9	10	19
	Neutral	3	3	6
	Unpleasant	0	0	0
	Very unpleasant	0	0	0
Total # of participants	·	13	13	26

Level of being heard

Four out of thirteen participants in the interview condition totally agreed about feeling heard, in contrast to only one participant in the relational map condition. One participant in the relational map condition did not agree about feeling heard, as can be seen in Table 10. Differences in the level of being heard were tested with the Mann-Whitney U Test. The test indicated that there was no significant difference between the level of being heard of the interviews and the level of being heard of the relational map sessions (U = 60.5, p > .09) at a p = .05 levels. The average score for the interview condition was 1.7 (SD = 0.48), and for the relational maps it was 2.1 (SD = 0.64), on a five-point scale

from totally agree to totally do not agree.

A participant in the relational map condition said about the level of being heard: "I talked still far too long, (laughing)" (participant 20, relational map). Similarly, a participant in the interview condition said: "I told everything, you know I talk a lot" (Participant 15, interview).

Table 10 Level of being heard

Level of being heard		Method used	Total # of participants		
		Interview	Relational map		
	Totally agree	4	1	5	
	Agree	9	11	20	
	Neutral	0	0	0	
	Do not agree	0	1	1	
	Totally not agree	0	0	0	
Total # of participants		13	13	26	

Prior experience with the methods

The literature suggested that familiarity with the method would be an advantage of the interview method. In this study, is asked about prior experience with the methods. Table 11 provides the results of the question regarding prior experience with the methods. Almost all participants in the relational map condition had no experience with the method while more participants had experience with interviews (N = 6). One participant remarked, in response to the question about whether he had prior experience with this method: "I have not experienced this method before, but it does not surprise me" (participant 9, relational map). There were seven participants who had no prior experience with an interview. These results were tested with the Mann-Whitney U Test. The results showed that the difference in the average scores was significant (U = 52.0, p = .03).

Table 11 Prior experience with the methods

Prior experience with method		Method used		Total # of participants
		Interview	Relational map	
	Experience	6	1	7
	No experience	7	12	19
Total # of participants		13	13	26

Level of understanding

Participants were asked what their opinion was about the level of understanding of the method; for instance, was the method very difficult to understand or easy? The difference in the understanding of both research methods was tested with the Mann-Whitney U Test, which showed no significance in

the differences between the groups (U = 71.5, p = .405). Based on the test results it can be concluded that the interviews and relational maps are equally understandable.

Perceived time duration

Participants evaluated the amount of time that the conversation with the researcher took on a one to five scale from *very good* to *very bad*. The Mann-Whitney U Test concluded that there was no significant difference between the level of amount of time of the interviews and the amount of time of the relational map sessions (U = 83.5, p = .935) at a p = .05 levels. Based on the test results, no differences between the outcomes of the evaluation of the amount of time taken for both methods can be found. This means that the evaluation of the amount of time is equally divided for both methods.

Uncomfortable feeling

The last factor is the level of uncomfortable feeling, which indicates whether participants felt uncomfortable while participating in the study. Based on the results, there were no participants with uncomfortable feelings. The data for level uncomfortable feeling is not normally distributed. The Mann-Whitney U Test did not show any significant differences between the scores for the relational map and interview conditions for the level of uncomfortable feeling factor (U = 78.0, p = .686).

4.2.4 Evaluation of the methods by the researcher

While collecting data a logbook is kept in order to provide a reliable evaluation of the research methods. Based on the logbook some factors are highlighted and presented below.

From a researcher's perspective, the relational map is a way of collecting data in a structured way. The level of importance is included in the relational map, which means that it is easy to categorize the different social relations. In the interview condition this was more difficult, since there was no fixed way for people to categorize their social contacts. In the interview condition people listed all their social relations after the first question. After the pre-test an additional form was created to give the researcher a way to write down all these social relations and later on ask the rest of the questions.

Based on this point the preference of the researcher is to gather data using relational maps. Other factors such as the total number of personal stories and their duration are almost the same and make no difference in the choice of research methods.

Finally, the term *diary* frightened participants. Many participants thought they would have to fill in everything they did for seven days. It might be best to replace the term *diary* could with, for instance, *a notebook with some questions*. When the participants understood the goal of the diary they all agreed to participate in the diary study as well. The diaries were reviewed as being less work and easy, and participants felt satisfied to complete the diary, which indicates that it is a good method to use for this particular target group.

4.3 Differences between diaries and the other methods

In this section the differences between the relational map and interviews and the diaries will be

presented; first, differences between the number of social relations mentioned in the interviews or relational maps and the number of relations that were listed in the diaries, and second, differences in the emotions assigned to the social relations.

4.3.1 Social relations mentioned in diaries in comparison to those mentioned the relational map and interview

The relational maps and interviews produced a total of 160 social relations (interviews (N = 82) and relational maps (N = 78)). The diaries resulted in a total of 63 (39%) social relations. This means that 97 social relations identified in the interviews or relational maps did not visit the participant in that specific week of the diary.

Another difference in the data are the fifteen social relations who were mentioned in the diaries but were missing from the interviews and maps. These people fell into different social relation categories; paid employees (N = 7), friends and relatives (N = 4) and family (N = 4).

Table 12 below illustrates all social contacts mentioned in diaries. The social contacts are subdivided by whether they were mentioned in relational maps or interviews. Interestingly, of the social contacts identified in the relational maps only half of those were not mentioned in the diaries (N = 52, 67%). The number of social contacts listed in interviews that were not mentioned in diaries was lower (55%).

Table 12 Number of social contacts mentioned in the diary split by research method

		Social contact m	entioned in diary	Total of social relations
Research method	Relational map	Yes 26 (33%)	No 52 (67%)	78 (100%)
	Interview	37 (45%)	45 (55%)	82 (100%)
Total # of social relations		63	97	160

4.3.2 Differences between emotions assigned on the relational map and in the diary

Table 13 provides an overview of the emotions assigned to social relationships on the relational map and in the diary. The relational map condition had 26 social relations that were mentioned in both the relational map and the diaries.

While for the interview condition most emotions stayed the same in the diary, for the relational map condition the emotions assigned to social relations in the diary are mostly lower (N = 11, 42%) than those assigned in the relational map itself. There were also social relations for whom emotions stayed the same (N = 9, 35%), shown in the highlighted cells of Table 13. The measured Cohen's Kappa for our results was -0.0 indicating a poor agreement. A total of six social relations were assigned emotions that were higher in the diary than in the relational map itself.

Table 13 Comparison relational with diary

Relational → map Diary →	Very happy	Нарру	Neutral	Not happy	Very unhappy	Total # of social relations
Very happy	2	5				7
Нарру	4	6	1			11
Neutral	1	4	1			6
Not happy		2				2
Very unhappy						
Total # of	7	17	2			26
social						
relations						

4.3.3 Differences between emotions assigned in the interview and the diary

Table 14 illustrates emotions assigned to social relations in the interview and the diary. The interviews identified a total of 37 social relations who were also mentioned in diaries. In both interviews and diaries a total of thirteen (N=13) social relations were assigned emotions rated as *very happy*. In the interview more happy (N=22) and fewer neutral emotions (N=2) were observed than in diaries (N=19 [happy], N=5 [neutral]). The highlighted fields show the social relations for whom there was agreement between the interview and the diary (N=19,51%). This means that nineteen social relations were rated exactly the same in the interview as in the diary, of which there were six rated as *very happy*, twelve as *happy* and one as *neutral*. The measured Cohen's Kappa for our results was 0.42, indicating a moderate agreement. Ten (27%) social relations were more positively evaluated in the diary than in the interview, while eight (22%) social relations were assessed lower in the diary than in the interview.

Table 14 Comparison of interview with diary

Interview → Diary ↓	Very happy	Нарру	Neutral	Not happy	Very unhappy	Total # of social relations
Very happy	6	6	1			13
Happy Neutral	7	12 1	3			22 2
Not happy Very unhappy						
Total # of social relations	13	19	5			37

5. DISCUSSION

This study gives answer to the following two research questions: What are the characteristics (i.e. type of relations, frequency of visits, importance of relations and type of support) of the social networks of home care clients? and What is the added value of a visual research method in mapping a social network with elderly home care clients? The answers to both questions contribute to the literature by providing additional evidence about the social networks of home care clients as well as the added value of the visual research method, relational maps. In this chapter, these findings will be discussed, together with the limitations of this study and suggestions for future research. Finally, some practical implications of the findings will be presented.

Characteristics of social networks

The first focus of this research was to examine the characteristics of the social networks of elderly home care clients. This research illustrates that elderly people have an average social network that includes six relations. The networks consist mostly of family members, followed by friends and relatives, and finally, paid workers. This result is consistent with the study done by Tunstall & Townsend (1973), which found that the networks of older people are family-dominated and include fewer friends than those of other age groups. While family seems to be the most dominant group in the social networks of home care clients, the results of this study indicate that family is not the social relation category that most frequently visits the participant. Paid workers visit the participant the most during a given week, followed by friends and relatives.

The level of importance of social relations was also investigated. The results of this study indicate that family is cited as the most important relation category in the life of a home care client. This finding is interesting, since family was found to visit the participants the least frequently.

Different categories of social relations provide different types of help to the home care client. Victor et al. (2000) argued that family helps more with the long-term caregiving, with friends being more important for emotional support. Therefore, participants were asked which social relations provide them emotional and functional help. This study's results do not support the assertions of Victor et al. (2000) because they showed that family contributes most to emotional support while paid employees provide most of the functional support. Finally, participants were asked to list all their social contacts, but half of the participants did not mention domestic workers unless prompted to do so. This indicates that participants think first of family and friends when talking about their social network.

Differences between methods in the evaluation of the participant and the time duration

In the literature, relational maps and interviews are compared based on their design, procedures, and pros and cons. In terms of the comparison made in this study, some expectations were derived from the literature review. First, Robben et al. (2012) stated that the target group of home care clients prefers visual information, therefore it was expected that elderly participants would prefer the use of the relational map over a verbal interview. Interviews are by far the more familiar method, and more commonly used in research with elderly people than relational maps. For this reason, it is possible that the target group might prefer an interview.

In fact, this study indicated that the opinion of the target group regarding both methods is equal, in that participants in both the relational map and the interview conditions were positive about the method used. Therefore, both methods would be useful to study social networks of elderly. The experience with the methods differed, as interviews were experienced by half of the participants, and relational maps by none of the participants. Surprisingly, seven participants had no prior experience with an interview. The relational map was reported to be a less familiar method, which also supports earlier research (Jamert-Grey et al., 2014). The literature on relational maps also claims that the relational map encourages participants to think differently about issues on a creative way, through drawing (Bagnoli, 2009). Because elderly face problems with short-term memory, thinking differently about issues could be too difficult for the target group in this research.

A downside of relational maps as a research method is that people can feel uncomfortable when creating the relational map because they need to draw (Jamert-Gray et al., 2014). This research has found that people were not uncomfortable while creating the relational maps; all participants reported being comfortable during the conversation. This may be because the session took place in their own home surroundings or because they do not feel uncomfortable so easily.

Interviews are a very time-consuming research method, as is the subsequent data analysis (Down and Adrian, 2004). Nothing was found in the literature about the typical duration of a relational map session, but the expectation was that the duration would be shorter than that of interviews. However, this study did not detect any evidence of a difference in duration between the methods. Not only the total duration was compared, but also the duration of personal stories in the conversation, which are stories that deviate from the required data. The length of these personal stories was a little longer in the relational map sessions than in the interviews, but this result was not significant. The participants were asked about their opinion of the duration of the interview or relational map; these results were also equal for both methods—participants experienced the duration of the both the relational map process and the interview mostly as good.

Relational maps are more focused on the context of the study, and less on the individual participants while interviews are more focused on in-depth information rather than generalization. In both conditions of this study the social network of the participant, which is quite personal information, was central to the conversations. Some participants mentioned that the subject was not that interesting for them because they already know their own story, but it should be interesting for and important to the researcher, since they need the information. These results are equally divided between the relational maps and interviews.

The participants were also asked if they felt they were being heard during the conversation. The participants in the interview condition agreed that they felt heard more often than those in the relational map condition, but the result was not significant. In general, participants had a positive feeling about being heard after both the relational map sessions and the interviews.

To conclude, only the prior experience towards the methods differ between the relational maps and interviews, other experience factors do not score different.

Differences in the content produced by the two methods

This study was conducted in order to answer a research question about the benefit of a visual research method with this target population. The differences in content between the relational map method (visual) and the interview method were measured using emotion stickers, which were used in all the methods. Participants rated the emotion associated with a social relation on a scale ranging from *very happy* to *happy*.

The participants in the interview condition mentioned few social relations more than relational map participants. A comparison between the methods used and the emotions assigned to those social relations was also done. The emotions attributed to a social relation were compared between the relational maps and the interviews. These results did not differ; the distribution of emotions was equally divided, with most social relations being assigned the happy emotion. Therefore, in this case, there is no preference for one method over the other because they both deliver the same information.

The emotions assigned to social relations were controlled by a diary study, in which all participants in both the interview and relational map conditions kept track of the social relations that visited them during one week, and marked them with an emotion sticker. Less than half of all social relations reported by participants in the relational map process and the interviews appeared in the diaries, although more relations from the interviews appeared than from the relational map sessions. The results of the current study showed evidence that the results of the interview had more in common with the diary than did the relational map condition. Most of the emotions assigned to social relations were equivalent between interviews and diaries. More differences were found between the relational maps and diaries. Social relations were rated more negatively in the diary than in the relational map. Therefore, people using this visual research method (the relational map) initially reported being more satisfied with their social relations than they did later in a real-time diary.

Based on these results it could be concluded that the content produced by relational maps and interviews is quite the same. However, the diaries found evidence that in the relational map condition social relations were rated more positively initially, unlike with interviews, where the ratings stayed more equal between them and the diaries. Another interesting result was that some diaries mentioned some social relations who were not named in either the relational map or interview. The interviews and relational maps returned a greater number of social relations, but there were some social relations forgotten or deliberately omitted that were identified with the support of a diary.

5.1 Limitations and suggestions for future research

This study has limitations regarding the time frame of the diaries. The idea was to use the diaries as a benchmark method to control for the interview and relational map method. The results from the diaries differ from what was expected because only 63 out of the 160 social relations identified with the other methods appeared in the diaries. These differences could be attributed to the time-frame of the diary, in that in the diary people could only mention social contacts that visited them during the week they were keeping the diary, while in the interview or relational map condition they were free to mention all the contacts they have. To use the diary as a benchmark more data was needed. A further

study with more focus on the duration of the diary recording is therefore suggested to achieve more reliable information and for benchmarking the information.

Additionally, interviews are a method in which generalization is difficult. In this study the ability to generalize the results is limited because only participants in a specific living situation were included. These results only apply to people who live alone in Zwolle with a specific home care organization that assists them. The results could vary with participants from, for instance, a village, because life in a village could differ from that in a larger city. Further research could include participants living in different types of communities.

Different participants participated in the interview and relational map conditions; thirteen for the relational maps and thirteen for the interviews. It could be interesting for further research to allow participants to take part in both an interview and a relational map session, in order to make a comparison of their opinions and comments on the two methods. This might reveal more differences between the methods. In the present study, as the participants were different for each condition, less complete conclusions can be drawn.

The final limitation involves the way the data was collected in the relational map condition. Because the participant in the pre-test preferred it when the researcher filled in the map, this was done with all participants. In this circumstance, participants did not feel uncomfortable during the creation of the map, but this could differ if they had to draw the map by themselves.

5.2 Practical implications

The results of this study show that there are not many differences between the relational map and interview methods. Nonetheless, there were a few more relations mentioned in the interviews, and more relations from the interviews returned in the diaries of those participants. The emotions assigned to a social relation in the interview condition were more consistent with those assigned in the diary. Half of the participants participating in an interview had experienced one before. These are all good reasons to use an interview as a way of studying the social networks of elderly people.

However, the relational map is also a useful method for this target group. The participants understood the method; it is quite simple, so it does not matter if participants have no experience with it. For the researcher, the relational map is easier to use, because it provides a structured map on which relations are drawn.

5.3 Conclusions

The following are the highlights of the conclusions that can be drawn from the results of this study:

- Social networks of home care clients consist of an average of six social relations. Family is the
 most dominant social relation category but does not visit the participant most. Family is also
 the most important social relation category for the participants.
- Family provides the home care client with emotional support, while paid workers provide the functional support.

- The only participant experience factor that differed between the relational map and interviews
 was prior experience with the method. Half of the participants in the interview condition had
 experienced an interview before. None of the participants in the relational map condition had
 experienced a relational mapping session before.
- The time duration of the method as a whole and the duration of personal stories did not differ between the relational map and the interviews.
- The diary method revealed some additional social relations that were not mentioned in the relational maps and interviews. The interview results had more in common with the diary results than did the results of the relational mapping session. Most of the emotions assigned to social relations were equivalent between the interviews and the diaries. More differences in assigned emotions were found between the relational maps and diaries. Social relations were rated more negatively in the diary than in the relational map. Therefore, people using this visual research method (the relational map) initially reported being more satisfied with their social relations than they did later in a real-time diary.

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7. APPENDICES

Appendix 1: Interview protocol and introduction

Vraaggesprek

Beste deelnemer,

Introductie: Mijn naam is Sanne Postma. Ik studeer communicatiewetenschap aan de Universiteit in Twente. Voor deze opleiding ben ik momenteel bezig met mijn afstudeeronderzoek waar dit vraaggesprek deel van uitmaakt.

Introductie onderzoek: In het kader van mijn onderzoek ga ik sociale netwerken van thuiszorg cliënten onderzoeken. Hiervoor gebruik ik drie verschillende methoden waarmee het sociale netwerk in kaart wordt gebracht. U bent geselecteerd voor het vraaggesprek, en wordt gevraagd na het interview een dagboek te gaan bijhouden. Anderen zijn geselecteerd voor het maken van netwerk met pen en papier en worden daarna gevraagd een dagboek bij gaan houden.

Doel vraaggesprek: Het doel van het vraaggesprek is om duidelijk te krijgen hoe uw sociale netwerk eruit ziet, en hoe belangrijk deze personen voor u zijn. Daarnaast dient het vraaggesprek als doel om duidelijk te krijgen wat uw mening is over het gebruik van deze methode.

Toestemming opname: In dit vraaggesprek is geen goed of fout antwoord mogelijk, ik ben benieuwd naar uw netwerk maar de gegevens blijven vertrouwelijk. Dit betekend dat de letterlijke namen die u noemt en uw persoonlijke gegevens niet bij TSN terecht zullen komen. Ik neem dit vraaggesprek op, zodat ik het naderhand nogmaals kan beluisteren en kan uitwerken. De opnames blijven strikt vertrouwelijk en de voorbeelden en meningen die ik ga gebruiken in mijn onderzoek worden zo verwerkt dat ze niet tot een persoon te herleiden zijn. Gaat u hiermee akkoord?

Netwerk

Het eerste gedeelte van het interview bestaat uit vragen over uw sociale netwerk.

Algemene vragen

1. Geslacht (invullen door onderzoeker)

2. Mag ik vragen wat uw leeftijd is?

Specifieke vragen over het netwerk. Deze vragen zullen open worden gesteld, en worden herhaald tot dat alle personen in het netwerk zijn behandeld.

3. Welke personen komen er voor in uw zorgnetwerk?

4. Hoe vaak komt deze persoon op bezoek?

5. Wat doet deze persoon voor u?

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- 6. Kunt u aangeven wat u van het bezoek van deze persoon vindt?
- 7. Kunt u met een van deze smileys aangeven hoe u zich bij dit bezoek voelt?
- 8. Hoe belangrijk is deze persoon voor u?

Voor vraag 9 en 10 is het mogelijk dat de antwoorden overlappen. Er zijn namelijk meerdere soorten hulp mogelijk bij een persoon.

- 9. Kunt u aangeven van welke personen in het netwerk dat we hebben opgesomd u uw verhaal kwijt kunt of goed kunt praten?
- 10. Kunt u aangeven van welke personen in het netwerk dat we hebben opgesomd u directe hulp in de huishouding of met dagelijkse andere taken krijgt?
- 11. We hebben nu al uw sociale relaties doorlopen, is dit volledig?

Wanneer thuiszorg niet genoemd is, ga naar vraag 4 t/m 7.

12. Waarom heeft u thuiszorg niet genoemd?

Methode

Het tweede gedeelte van het interview gaat over de methode die we net hebben gebruikt, het interview. Ik ben geïnteresseerd in uw beleving en ervaring van de methode.

- 1. We hebben net het vraaggesprek afgerond, wat vond u ervan?
- 2. Kunt u beschrijven wat u van de methode vond? (leuk/niet leuk)

Helemaal niet leuk - niet leuk - neutraal - leuk - heel leuk

3. Was de methode begrijpelijk? (makkelijk/moeilijk)

Heel moeilijk - moeilijk - neutraal - makkelijk - heel erg makkelijk

4. Wat vond u van de diepgang van de vragen?

Heel slecht - slecht - neutraal - goed - heel goed

- 5. Wat vond u van het tijdsbestek van de methode? (lang/kort)
- 6. Heeft u ook het gevoel gehad dat u zelf iets kon vertellen?
- 7. Hoe voelde u zich bij de methode, heeft u zich ongemakkelijk gevoeld?
- 8. Was u al bekend met de gebruikte methode?

Appendix 2: Relationele map

Maken van een netwerk met pen en papier

Introductie: Mijn naam is Sanne Postma. Momenteel doe ik werkervaring op bij TSN Thuiszorg en daarnaast ben ik bezig met mijn afstudeeronderzoek. Ik studeer communicatiewetenschap aan de Universiteit in Twente.

Introductie onderzoek: In het kader van mijn onderzoek ga ik sociale netwerken van thuiszorg cliënten onderzoeken. Hiervoor gebruik ik drie verschillende methoden waarmee het sociale netwerk in kaart wordt gebracht. U bent geselecteerd voor het maken van een netwerk met behulp van pen en papier. U wordt gevraagd na het maken van uw netwerk een dagboek bij te gaan houden. Anderen zijn geselecteerd voor het maken van een vraaggesprek en worden daarna gevraagd een dagboek bij te houden.

Doel van het maken van een netwerk met pen en papier: Het doel van deze methode is om een sociaal netwerk in kaart te brengen met behulp van pen en papier.

Toestemming opname: Bij het maken van uw netwerk is geen goed of fout antwoord mogelijk, ik ben benieuwd naar uw netwerk en uw gegevens blijven vertrouwelijk. Dit houdt in dat de namen van uw netwerk en uw persoonlijke gegevens niet aan TSN worden aangeleverd. Ik neem ons gesprek tijdens het maken van het netwerk op, zodat ik het naderhand nogmaals kan beluisteren en kan uitwerken. De opnames blijven strikt vertrouwelijk en de voorbeelden en meningen die ik ga gebruiken in mijn onderzoek worden zo verwerkt dat ze niet tot een persoon te herleiden zijn. Gaat u hiermee akkoord?

Hoe gaan we te werk?

Tijdens deze methode gaat u een netwerk samenstellen door middel van pen en papier.

Voor u ligt een vel papier met cirkels erop. Het figuur bestaat uit verschillende cirkels, en in het midden mag u uw naam plaatsen. U gaat uw sociale plaatsen in deze map. Er ligt verschil in de ringen buiten uw eigen naam. Hoe dichter u de persoon bij uzelf neerlegt hoe belangrijker is deze persoon in uw sociale netwerk. In de map staat ook aangegeven wat elke ring betekend, zeer belangrijk, belangrijk en in mindere mate belangrijk. Na iedere persoon die geplaatst is in het netwerk ga ik u vragen wat uw gevoel is bij deze persoon. U ontvangt stickers met smileys die geplaatst mogen worden bij de namen.

We gaan starten met het maken van de relationele map, en vervolgens ga ik u nog wat algemene vragen stellen en enkele vragen over de methode.

Vragen bij relationele map

Als mensen bepaalde mensen missen in hun netwerk doorvragen (guidance)

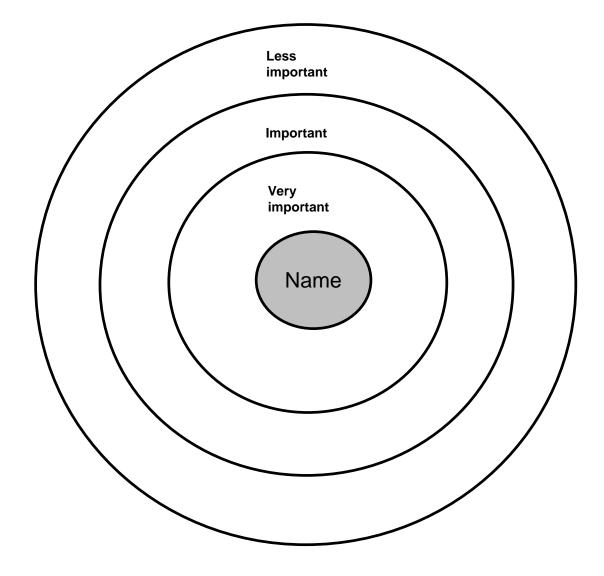
- Heeft u nog mensen van de thuiszorg (of anderen) die langs komen, en hoe belangrijk zijn deze personen voor u?

Vragen in te vullen door onderzoeker

- 1. Geslacht (m/v)
- 2. Mag ik u vragen wat uw leeftijd is?

Vragen over methode

- 1. We hebben net het vraaggesprek afgerond, wat vond u ervan?
- 2. Kunt u beschrijven wat u van de methode vond? (leuk/niet leuk)
- 3. Was de methode begrijpelijk? (makkelijk/moeilijk)
- 4. Wat vond u van de diepgang van de vragen?
- 5. Wat vond u van het tijdsbestek van de methode? (lang/kort)
- 6. Heeft u ook het gevoel gehad dat u zelf wat kon vertellen?
- 7. Hoe voelde u zich bij de methode, heeft u zich ongemakkelijk gevoeld?
- 8. Was u al bekend met de gebruikte methode?



Appendix 3: Questions for diaries

Dagboek

Doel van het dagboek: Het dagboek kan aanvullende gegevens opleveren voor het onderzoek.

Vertrouwelijk: Gegevens worden hierbij ook vertrouwelijk behandeld, dit houdt in dat uw persoonlijke gegevens niet aan TSN Thuiszorg zullen worden overgedragen.

Hoe gaan we te werk?

Dit dagboek bestaat uit een aantal vragen die u zult beantwoorden wanneer u bezoek heeft gehad.

Deze vragen gaan over uw sociale netwerk. Let op, er is geen verband met het de vorige methode. U kunt gewoon waarheidsgetrouw uw dagboek bijhouden.

Onderstaand de vragen per dag

- 1. Welke personen hebben deze dag bij u een bezoek gebracht?
- 2. Wat was de reden voor het bezoek?
- 3. Hoe lang duurde het bezoek?
- 4. Dit bezoek voelde voor mij?... leg uit waarom
- 5. Kunt u met een sticker dit gevoel aangeven

Appendix 4: Additional form interviews

Antwoorden gesprek

Naam: huishoudelyke hulp Schoonmaken 1,5 uur p. 2 weken

Gevoel:

Belangrijk: heel

Naam: Charenwasser IXP. 2 mnd

Gevoel: aped mee overway Belangrijk: heel erg belang

Naam: Washulp verzorging/wassen Gevoel: Week

Belangrijk:

Naam: Zus bellen elke dog 1 X P. 2 Weller Gevoel:

Belangrijk: heel erg belangrijk om mee te praten

Gevoel:

Belangrijk:

Naam: Lunderen komen heet weinig

Gevoel:

Belangrijk: belangryk