**Supplementary VI** Audit trail containing memos about context, observations and methodological choices

| Date | Subject | Memo |
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| 02-02-2021 | PIF + IC | Information letter (PIF) written following the CCMO format. Informed consent (IC) letter added to the information letter. Sent to supervisor for feedback. |
| 14-02-2021 | PIF + IC | Received and processed supervisor’s feedback. The information letter was too extensive. Supervisor advises to simplify the letter by not using the CCMO format. Besides, our study does not target patients, but caregivers. Following this advice, I have processed all important information from the prior version in a simplified version. |
| 16-02-2021 | PIF + IC | Supervisor gives green light for the use of the PIF and IC form. |
| 17-02-2021 | Recruitment | Today, recruitment of respondents started as described in the research proposal.  First, in the Medido Portal of the home healthcare service I checked which teams used respectively the most, some and no AHMDs (maximum variation factor: experience with AHMDs). For recruiting potential respondents, I selected six managers to provide names: two managers whose teams use the most AHMDs (6 and 7), two managers whose teams use a few AHMDs (1 or 2) and two managers whose teams do not use AHMDs.  Each manager has teams in a specific geographic area of the south-western Netherlands. By selecting six different managers, variation in geographic area is guaranteed.   I developed a fillable respondents list in Excel. The managers were asked by email to fill in the Excel form within a week. When the list is filled in, a selection based on all maximum variation factors will be made. • Name of potential respondent  • Function (EQF-level). Each manager was asked to provide two names per function  • 2x Helpende Plus (EQF-2)  • 2x Verzorgende (EQF-3)  • 2x Verpleegkundige in de wijk (EQF-4)  • 2x Wijkverpleegkundige (EQF-5/6) • Team name • Age category (18-24, 25-29, 30-39, 40-49, 50-59, 60-67 years) • Work experience category (0-4, 5-9, 10-19, 20-29, 30-39, 40-49 year) |
| 24-02-2021 | Reminder recruitment | I have sent a reminder by email to the managers that have not yet filled in the Excel respondents list. One manager asked whether the time the caregivers will need for the interview is declarable. I have consulted the director of home healthcare of the home healthcare service and received permission to declare the needed hours. Together, we are figuring out whether these hours can be financed by a subsidy the organization has received for AHMDs, among other things. |
| 01-03-2021 | Recruitment | I phoned the two managers that have not yet filled in the Excel respondents list with the proposal to fill it in together. One manager promises me to provide the names on Wednesday (two days from now). I’ve scheduled a telephone appointment to fill it in together.   Today I have also started selecting respondents and inviting them. I want to invite 13 respondents (12 interviews + 1 check interview). I have reserved two blank spots for the manager that has not yet provided names, so 11 respondents were selected with maximum variation in the predetermined factors. These respondents were invited by email, with the PIF+IC as attachment. I asked them if they would be willing to participate, and to reply within one week, and return a signed informed consent form if they were willing. |
| 02-03-2021 | Interview 1 | Conducted the first interview, through Microsoft Teams. This is also a test interview, to test the interview guide and my interviewing competences. The interview went well. Some technical sound issues were fixed by restarting Microsoft Teams. The recording then consisted of two videos with audio, which I have pasted together. The interview guide was helpful. |
| 02-03-2021 | Recruitment | Two respondents have already sent a signed IC form, so interviews are planned with them.  Interview 1 (pilot interview): Today! (2-3-2021) Interview 2: Friday 5-3-2021 |
| 03-03-2021 | Transcribing interview 1 | I’ve decided to use F4transkript for transcribing the interviews. I still must type the entire text myself, but the program helps by providing shortkeys for rewinding (F3), pause/play (F4) and forward (F5). It also automatically switches speakers and inserts timestamps.  I’ve sent the transcript of interview 1 to my supervisor for feedback. The data of this test interview should be included in the data analysis because it contains useful data. |
| 03-03-2021 | Recruitment | I phoned the last manager to fill in the Excel respondents list together. After this phone call, the respondents list is complete! Two male respondents are selected, since only one other male caregiver was proposed by the managers. After I invited these two respondents, my targeted 13 respondents are all invited. When they send me their informed consent, an interview can be planned. |
| 04-03-2021 | Recruitment | A few more IC forms have been received. Options for dates for the interview are sent to the respondents. |
| 04-03-2021 | E-mail contact with supervisor | Today, I received feedback from my supervisor about the first transcript. My supervisor agrees to include the interview in the data analysis. |
| 05-03-2021 | Interview 2 | Conducted the second interview. Again, the interview guide was helpful and the interview yielded useful information. No technical issues appeared. |
| 05-03-2021 | Transcribing interview 2 | I transcribed the entire interview with the help of F4transkript. I sometimes caught myself asking steering closed questions. When I did, I wrote it down in the comment-section as self-reflection. This way, the feedback is included in the transcripts in a traceable way and I can improve my interviewing skills. |
| 05-03-2021 | Recruitment | Again, IC forms have been received and interviews are being planned. At this point, four interviews are planned and eight IC forms have been received. |
| 08-03-2021 | Recruitment | Four potential respondents who have been asked to participate have not yet responded to my email. In the first email, I asked to respond within a week, which is over today. Therefore, I sent a reminder via email asking to respond by Wednesday at the latest (two days from now). I also announced that they will receive a phone call if they have not responded by then. Next to the email, I've sent a so-called ONS-message. ONS is the electronic patient file system in which caregivers can also communicate with each other. This way, the potential respondents are contacted in multiple ways. |
| 08-03-2021 | Interview 3 | Today I've interviewed the third respondent. The interview went well. Interview guide was helpful. Information that was new in prior interviews has been checked in this interview. |
| 09-03-2021 | Transcribing interview 3 | Interview 3 was transcribed using F4transkript. Reflective points were added in the transcript. |
| 10-03-2021 | Interview 5 | After the fifth interview, the interview guide still fits the research question. Using probes and further questioning as a reaction to what respondents say, comprehensive information about the AHMD is received. Also, during the interviews I notice that respondents already give repeated information. I also hear less new information compared to prior interviews. |
| 10-03-2021 | Recruitment | One respondent who has been invited one week ago has not answered. I've sent a reminder via email and the internal communication system (ONS). |
| 15-03-2021 | Coding inductively on paper interview 1 | I coded the interview on paper, with a pencil and a colored pen. I underlined meaning units and wrote a comment/code in the margin. On a separate piece of paper, I've made a two-column-table, barriers & facilitators (conceptual interview scheme). From the interview, I've written down the first analysis of barriers and facilitators. I have not yet induced the codes in the TICD framework. I will ask feedback about the interpreted barriers and facilitators (member check). After receiving and processing the feedback, I will import the transcript in Nvivo software and will again code the meaning units. This time, inducing it in the TICD determinants. I have decided not to alter the interview guide, because it still fits the research question and supports my questioning during the interviews. |
| 17-03-2021 | Coding inductively on paper interview 2 | I've used the same method as interview 1. I reach the same conclusion: the interview guide still fits the research question and my interviewing. |
| 19-03-2021 | Recruitment | One invited respondent declined participation. Therefore, I've selected another person from the respondents list. I've sent an invitation and received the reply that this person is willing to participate, but cannot fill in the informed consent form. I've asked why it does not work, so maybe I can come up with a solution. Also, I've already sent two date options for the interview. The informed consent form can be filled in after scheduling the interview. |
| 20-03-2021 | Conceptual interview scheme interview 1 | The first conceptual interview scheme is developed. I will develop the same scheme for a few more interviews after paper-coding them. On 31-3, during a meeting with my supervisor, I will present the conceptual interview schemes and propose to member check these. |
| 21-03-2021 | Conceptual interview scheme interview 4 | After developing four conceptual interview schemes, I can conclude that the interview guide does not need adjusting. The questions and probes provide enough room to elaborate further during the interviews. Also, I don't think that I have missed important information. On the contrary: information is being repeated. I feel that reaching data saturation in 12 interviews is feasible. |
| 24-03-2021 | Interview 10 | The interview guide still proves to be helpful. I don't seem to be missing information. Respondents are sometimes repeating things they have already told me. Some new information is still added to the prior interviews, so data saturation has not yet been reached. However, the amount of new information is becoming less and less. |
| 24-03-2021 | Recruitment | After the first respondent declining participation, two others who I had invited to replace the first declining respondents have declined. At this point, all EQF-2 and EQF-3 employees from the wealthiest geographical area have declined. I've decided to prioritize the geographic area over EQF-level and invited an EQF-4 employee from the wealthy geographic area. If needed, a 14th interview can be conducted by inviting an EQF-2 or 3 employee from another geographical area, or by asking the manager of the team to propose another person. |
| 28-03-2021 | Transcribing interview 6 | This interview was a little different than other interviews, because this respondent is currently testing the new prototype of the Medido dispenser. The respondent described barriers and facilitators for both the new type and the regular type of dispenser. Notable is that the new prototype has some enhancements that turn barriers for the old version into facilitators for the new version. Luckily, the respondent also has experience and information about the 'regular' version, so the interview needs not to be excluded. It is a rich interview! |
| 29-03-2021 | Interview 11 | This respondent was sometimes difficult to understand. The respondent speaks Dutch well enough, but has an accent. Also, the answers were sometimes limited. Also, she frequently repeated her previous answers, which were not always an adequate answer to my questions. With the use of the probes, it worked better. However, no new information was gained with this interview. Data saturation might be approaching. |
| 29-03-2021 | Interview 12 | During this interview, a lot of new information was gained. It appeared that this respondent has no experience with the AHMD within the current home healthcare service, but has plenty of experience in another home healthcare service. This might be a reason that other barriers and facilitators were experienced. Data saturation has not yet been reached, and a minimum of two more interviews are necessary to reach data saturation with a check interview. One more respondent will be recruited. |
| 02-04-2021 | Interview 13 | Prior to conducting this interview, the interview guide was altered using the new information I derived from interview 12, so I could check this information with this new respondent. In this interview, some new information was again added, so data saturation has not yet been reached. I intend to recruit at least two more respondents. I hope to reach data saturation in interview 14, and then do a check interview in interview 15. |
| 02-04-2021 | Recruitment | I have invited two more potential respondents for the study. |
| 07-04-2021 | Recruitment | One of the invited potential respondents declined participation, because she feels she hasn't got sufficient experience with AHMD. I've replied to her email by telling her that I'm also interested in talking to people with no experience with AHMD. She has not responded yet. For now, I assume this respondent will not participate and I've decided to invite another potential respondent just in case. |
| 08-04-2021 | Data analysis | Based on the coding on paper and the conceptual interview schemes I've developed, a code tree is notable. I've put the code tree in Nvivo, so I can use the code tree to code following transcripts in Nvivo. Also, my supervisor has agreed to co-code two random interviews. I will share the code tree with him to do so. When there are too many discrepancies, my supervisor will code a third transcript. |
| 11-04-2021 | Data analysis | I've decided to stop coding on paper. The process of coding four interviews on paper has given insight in the preliminary code tree that I've imported in Nvivo. Now, I'm coding all interviews in Nvivo. I've also made cases and attributes to keep record of the characteristics of the respondents which I later can use in queries. Now I want to figure out whether I can make summaries of preliminary findings per interview, which I can use for member checking. |
| 11-04-2021 | Data analysis | My supervisor is going to co-code two random interviews. To randomly select those interviews, I've used a random number picker. For evidence, I've screen recorded this process. Following this process, my supervisor will co-code interviews 5 and 15. Today I will send him the code tree I developed after coding four interviews and the fifth transcript. It is not yet possible to send the 15th transcript, since my 14th and 15th respondent are yet to be recruited. |
| 11-04-2021 | Member check interviews 1-4 | The conceptual interview schemes that were developed after coding interviews 1-4 on paper have now been sent to the respondents for member checking. They are asked to provide written feedback within a week time. When at the end of next week no feedback has been received, reminders will be sent. |
| 13-04-2021 | Recruitment | I've sent reminders using ONS (electronic filing system used in the home healthcare service, which has a communication function). I've asked the potential respondents to respond on Friday at the latest whether they want to participate or not. If they don't want to participate, or if I don't receive a reaction, I will invite another potential respondent from the respondents list. |
| 13-04-2021 | Data analysis | After consulting my supervisor, we've concluded it is not a feasible option to co-code interview 15. Therefore, I've randomly selected another interview, using the same process as before. Following this process, my supervisor will co-code interviews 3 and 5. Some nodes in the code tree don't have a description. My supervisor provided feedback about this. I've added descriptions for all nodes, so transparency will be guaranteed in the code tree, making the coding process more transparent and therefore more successful. After this, I have sent the code tree, transcript 3 and the screen record evidence of randomly picking interview 3 to my supervisor. |
| 13-04-2021 | Member check interview 2 | Respondent 2 has provided written feedback on the conceptual interview scheme. The respondent agrees with the findings. The respondent said she missed one subject. It is a subject that we had not discussed yet. I've added the full feedback as a memo in Nvivo. The new subject has been coded in Nvivo. |
| 15-04-2021 | Interview 14 | Today I conducted the 14th interview using the same interview guide as in interview 13. No new information was gained in this interview. Data saturation might have been reached. Interview 15 will be a check interview. |
| 15-04-2021 | Data analysis + Member check | A conceptual interview scheme for interview 5, similar to those of interviews 1 to 4, is developed and sent to the respondent for member checking. |
| 16-04-2021 | Data analysis + Member check | A conceptual interview scheme for interview 6, similar to those of interviews 1 to 5, is developed and sent to the respondent for member checking. |
| 18-04-2021 | Data analysis + Member check | A conceptual interview scheme for interview 7, similar to those of interviews 1 to 6, is developed and sent to the respondent for member checking. |
| 19-04-2021 | E-mail contact with supervisor | For peer reviewing, I'm collaborating with one of my peers (classmate). She has asked me to code two of her interviews (for her study). Her interviews are not selected randomly, but based on information richness. This made me second guess my decision to randomly select my interviews for co-coding. Therefore, I've contacted my supervisor. Since the reason for co-coding is to reach consensus about the coding, the information richness is not an essential factor. Therefore, randomly selecting the interviews provides transparency. Also decided is that I'll ask my peer to co-code two interviews of mine too. I've randomly selected the interviews; interviews 4 and 14 will be co-coded by her. |
| 20-04-2021 | Interview 15 | The 15th interview was conducted. New information, though minimal, was gained. However, it has become clear that data saturation has not yet been reached. It would be best to recruit minimally two/three extra respondents. However, due to time reasons, I've decided to first focus on transcribing and analyzing interviews 8-15. If it is feasible in the available time, I will add more interviews. This has been consulted with my supervisor and he's agreed. |
| 20-04-2021 | Transcribing interview 14 | Interviews 8-13 have not yet been transcribed. However, since my peer will code interview 14, I've decided to transcribe this interview ASAP, so I can send it to her. |
| 24-04-2021 | Data analysis | I've decided to code this interview before coding interviews 10-13, since my peer will co-code interview 14 and we will discuss the coding on the 7th of May. I wanted to have the interview ready as soon as possible for discussion. |
| 26-04-2021 | Meeting with supervisor (discussing peer review) | During this meeting, we discussed the two interviews that were co-coded by my supervisor. Notable was that my supervisor coded word by word, whereas I have been coding meaningful units of text. Overall, the selected codes were largely the same. Texts that my supervisor coded with question marks were codes that did not exist at the time that my supervisor was coding, but had been added to the code tree in the meanwhile. Agreement on the coding has been reached.  During this meeting it was decided not to add extra interviews. While some new information was still gained in the interviews, the information was on detail level. When looking at it thematically, no new big themes have arisen in interviews since interview 13. Therefore, thematic saturation had been reached at interview 13, and the following interviews were check interviews where no new themes have arisen. Thematic saturation has been reached! |
| 27-04-2021 | Writing results | After consulting my supervisor, I've decided to start writing my concept thesis with the 10 interviews I have coded thus far. For the definitive version, I will process the results that will be added to the analysis. This way, I have more time to analyse the results without compromising my concept version. |
| 07-05-2021 | Discussing peer review | During this meeting, we discussed the two interviews that were co-coded by my peer. We went through both interviews code by code and discussed any discrepancies. I was challenged to explain why I chose a certain code. Overall, no big differences were notable in the coding. No new themes have arisen. |
| 15-05-2021 | Data analysis | With this step, all meaning units of prior interviews will be reviewed again, to see whether these still have been correctly coded, or whether in the process a new code has been created that fits the meaning unit better. (Constant comparison). |
| 16-05-2021 | Data analysis | I've made an Excel file with the codebook as a reference. I've added the following information: - How many respondents mentioned each code (Nvivo: how many files per node) - How many meaning units were mentioned within the code (Nvivo: how many references per node) - A new column with the summed files and references (Nvivo: made a file-copy and coded all meaning units of the subcodes into the main codes. Duplicates are excluded this way).  Based on this information, three main themes can be identified as high-relevant based on how many respondents and meaning units were included in the nodes: 1) Innovation factors > 15 respondents, 219 references 2) Individual health professional factors > 15 respondents, 297 references 3) Patient factors > 15 respondents, 365 references 4) Professional interactions > 15 respondents, 77 references 5) Incentives and resources > 14 respondents, 62 references 6) Capacity for organizational change > 10 respondents, 61 references 7) Social, political and legal factors > 3 respondents, 5 references  Due to the big differences in numbers of references above, three main factors are identified as high relevant: innovation factors, individual health professional factors and patient factors.  Social, political and legal factors were hardly mentioned, so will not be further reported. |
| 02-06-2021 | Data analysis | Including quantitative information about the barriers and facilitators was not described in the methods section of the thesis. Also, we’ve come to the conclusion that the number of references per domain is less important than the number of determinants (barriers, facilitators or both) per domain. That is why I’ve changed this in the final version of the thesis. |