

Interview Guide for elderly

Inclusion Criteria:	Exclusion Criteria
Elderly with mobility issues: <ul style="list-style-type: none"> • Elderly with reduced mobility capabilities • Elderly who are at risk of falling • Elderly who are rehabilitating and are in need of a mobility coach 	Elderly who do not have any mobility issues
Elderly who gave their informed and signed consent	Elderly with any cognitive issues
	Elderly who's EMS score exceed 13 points.

Archival #:	Ex/ DF2H <i>First letter of application (W/H/C), First letter of country name (F/I/N/J), Number of respondent (1 to 10), Housing (H/N/S)</i>
Application:	<input type="checkbox"/> Walking <input type="checkbox"/> Housework <input type="checkbox"/> Conversation
Country:	<input type="checkbox"/> France <input type="checkbox"/> Italy <input type="checkbox"/> Japan <input type="checkbox"/> Netherlands
Respondent #:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <i>Respondents are identified through a number from 1 to 10 (as there are 10 respondents per country/appli)</i>
Site:	
Interviewer:	
Date:	
Start:	Am/pm
End:	Am/pm
EMS Score	
Interviewee	
Age	
Gender	<input type="checkbox"/> Male <input type="checkbox"/> Female
Living condition	<input type="checkbox"/> Home <input type="checkbox"/> Senior residence <input type="checkbox"/> Nursing home

Introduction

Dear Mr./Mrs:..... Thank you for accepting to participate in this “needs” interview for the ACCRA project. Your collaboration is appreciated! I will shortly explain the interview procedures.

Interview protocol:

- This interview aims to determine potential issues and needs that you might have come across concerning your **mobility**.
- This interview aims to determine your **perceptions about the usage of technology and robotics** for health care.
- The data will be used for the ACCRA project to prepare the robots that fits the elderly needs.
- This data may be used for future publications including, but not limited to: academic journals, websites and policy papers.
- This interview will be recorded
- The interviewer/researcher conducting this interview will make sure that the data is treated confidentially and that the data will not be traceable to a specific individual to safeguard privacy.
- If you do not feel comfortable to give answers to a question, you can state this without providing any reason and the interviewer/researcher will skip the question.
- If you do not feel comfortable to continue the interview any further, you may at any moment discontinue the interview without providing any reasons.

Do you have any questions? Do you understand and accept the above mentioned procedures?
If so, we will start the interview.

Context and way of life

1) Could you describe what your current mobility issues are?

Probes:

- i. Do you for example have problems: Getting up/sitting down, walking (for a long distance), climbing stairs, lifting/carrying stuff, bending down etc.
- ii. Does it cause pain when you try to these motions or do you not have enough strength? Are there other reasons that limit your mobility?

2) Could you describe your problems that you have experienced in you daily life caused by your limited mobility?

Probes:

- i. Let's start with the morning. Did you have difficulties preparing breakfast this morning? What problems did you have to prepare your breakfast?
 - a. Taking food or plates out of the fridge/cabinets? Why did you have problems with it?
 - b. Carrying plates and food to the table? Why did you have problems with it?
 - c. Cooking the food behind a stove? What were the problems?
- ii. Could you describe the rest of your day and what issues you have come across in regards with your mobility? What Issues do you have in the afternoon and evening?

- a. What activities are you unable to do (properly) due to your mobility issues on a regular day? Attending visitors, washing, shopping, cleaning etc.? What is exactly the problem?
 - iii. Do you experience any problems with your social life in your daily life due to your reduced mobility?
 - a. For example are you visiting friends/family less?
 - b. How is your participation in events/activities?
- 3) How do you feel about having mobility issues?
- Probes:
- i. Do you consider it to be normal? It's part of becoming older and there is no need to have feelings about it?
 - ii. Or do you feel annoyed, hopeless or stressed? Why do you feel that way?
 - a. Reliance on others?
 - b. Loss of Independence
 - c. Not to be able to do things that you were able to in the past
 - d. Or have you never thought about how you felt?
 - iii. How do you feel about your safety? For example, have you had anxiety of falling (again) with your decreased mobility?
 - a. How has this affected you? Do still walk around a lot?
 - b. Are you still willing to take long walks?

Homecare

- 4) What do you currently do to solve your mobility issues?
- Probes:
- i. Do you ask a care worker/friends/family to help you?
 - a. If so, with what do they help you with? And how do they help you? Do you have them help you with:
 - Be your walking partner?
 - Performing some of the daily household tasks: cleaning, cooking, shopping?
 - How frequent do they help you?
 - Is it on-call basis? Or do you have fixed time moments? Which one would you prefer why? How long do they usually help you?
 - b. If not, why do you not ask a care worker/friends/family to help you?
 - You do not want to burden them for every (small) issue? Even if they are willing to help you?
 - You do not want to rely on other people to perform tasks that you could yourself? (Maintaining independence)
 - You do not feel comfortable to request help from them? Why not?
 - Would you be interested to receive help from someone? If so, who?
 - ii. Do you solve your mobility issues by using assistive mobility equipment: Walking cane, a walker, etc?
 - a. If yes, do you like using the tool? Why do you (not) like it?
 - What are the advantages?

- Did your family/friends/care workers wanted you to use it? How did they convince you?
 - b.If not, why do you not use assistive equipment?
 - Are the equipment not comfortable?
 - You do not like the image of being an individual needing walking equipment?
 - You do not believe that they are useful?
 - iii. Did you create your own creative strategies?
 - Are you using tables or other furniture that are commonly not meant to be used for walking/getting up?
 - iv. Did you change your lifestyle?
 - a.For example, to avoid the need to get up every time to go to the bathroom, you decided to eat/drink less.
 - b.Because you move less, you eat/drink less to avoid gaining weight
 - c. You avoid social activities because reaching the location within the care home is too difficult or cost too much energy?
 - d.You changed your planning/needs to fit the schedule of the care worker/family/friends that help you with mobility issues?
- 5) If you have to make a top 3 list of problems caused by your limited mobility that severely affects your independent living, which problems would you put in your top 3?

Probes:

- a. Why do you put these 3 issues in your list?
 - Do these issues decrease your confidence/self-esteem?
 - Do these issues reduce your independence?
- b.What do you think about the current methods on how these mobility issues are currently resolved?
 - For example, due to your limited mobility you have difficulties attending social activities. Therefore, you call a care worker to pick you up and drop you off and vice versa.
 - Could you mention other examples?

First investigation of the interests for a robot

- 6) Do you have any experience with technology?

Probes :

- i. Do you use Computers/Smartphones/Tablets? Why (not)?
 - a.If you are using:
 - What do you use it for?
 - Calling friends/family
 - For online shopping
 - For watching television shows
 - Did you buy it on your own or did somebody else buy it for you?
 - Why did you get it on your own/somebody else buy it for you?
 - Who bought it for you?
 - b.If you are not using
 - Why do you not use them?

- Do you have issues using these equipment?
- What kind of issues do you experience using them?
- Are you interested in using computers/smartphones/tablets?
 - What would you like to be able to do?
- ii. What kind of technology are you most comfortable with?
 - a. Could you mention 3?
 - b. Why are you the most comfortable with these 3?
 - Are you experienced with them?
 - Did somebody explain it to you on how to use them?
 - Were they intuitive for you to use?

7) Are your family/friends experienced with computers/smartphones/tablets?

Probes

- i. What do they use?
- ii. What do you think about the fact that they use it?
- iii. Have you ever used a computer/smartphone/tablet together with your close ones?

At this point; show video/pictures about ASTRO with a short explanation on what it can do at the moment.

8) After looking at this video/pictures about ASTRO, what do you think about ASTRO? A robot that could help you with your mobility issues?

Probes:

- i. What are your first impressions about the robot?
 - a. Interesting? Strange? Scary? Why do you think that?
 - b. What do you think about the idea of robots in health care?
- ii. Do you believe that the robot will be able to provide you the necessary help to solve your mobility issues? Why (not)?
 - a. If it would help you:
 - With which issues would it help you? How would it help you?
 - b. If it would not help you, why not?
 - What would should be changed to make it useful for you?
 - Would it be useful for other elderly? Why do you think that?
- iii. If ASTRO would be here right now, do you think that you will be able to use ASTRO properly? Why (not)?
 - a. Will you be able to give the proper commands or have ASTRO do tasks that you want him to do? Why (not)?
 - b. Will you be able to give or input commands (Smart phone/ Touchscreen)? Why (not)?
 - c. What kind of input method should be used to make it easier for you to communicate with the robot?
- iv. Would you be interested in training to be able to use ASTRO? Why (not)?
 - a. What kind of training would you prefer? Face-to-face, manual, video training?

9) How would you feel being helped by a robot instead of a human worker?

Probes:

- i. Would you feel sad, scared or something else? Why would you feel that way?
- ii. What positive or negative ideas do you have about having a robot help you with your mobility problems?
- iii. What advantages or disadvantages could you think of about using robots?
- iv. Do you think that the robot will be able to replace your (in)formal caregiver? Why?

I will now provide some functions that ASTRO could potentially perform.

10) ASTRO could “see” and measure your health and physical activity using cameras and sensors. It could even “see” that you fell down. Based on the situation it could suggest you some exercises or warn a health care worker.

Probes:

- i. What do you think of such function? It could keep track of your physical activity, living situation and health. Useful or not? Why?
- ii. How would you feel being monitored by a robot?
 - a. Is it an invasion of privacy? Or do you not mind?
 - b. It weakens the relationships between elderly and health care workers?
 - c. Who should have access to your health data?

11) ASTRO could provide some simple rehabilitation exercises to help you maintain/improve your mobility. Would you be willing to do physical exercises with a robot? Why (not)?

Probes:

- i. Which (lack of) functions would convince you to (not) do exercises with the robot?
- ii. Would you feel safe doing exercises with a robot?

12) ASTRO could facilitate communication between you and healthcare workers using digital communication. What do you think of such function?

Probes:

- i. Is it useful? Why (not)?
- ii. Would communication with family/friends be more interesting? Why (not)?

13) I asked you earlier to create a top 3 of mobility issues. Should ASTRO be able to help you solve these issues? Why (not)?

Probes :

- i. (Refer back to the answers that the elderly gave)

14) During the entire interview, you were able to think and express your opinions about your mobility issues in daily life and robots in health care. **Right now based on your current knowledge, would you be interested in in using ASTRO?**

Probes:

- i. Why would you (not) be interested?

- ii. Based on the video and your own daily issues, are there other tasks that you would like ASTRO to be able to do, to make it possible for you to live independently longer?
 - a. Should ASTRO be able to carry things?
 - b. Should ASTRO be able to do certain tasks automatically for you?
- iii. What would be required to make ASTRO (even more) interesting and useful to you?
- iv. Which (lack of) functions would convince you to (not) use the robot?

Additional elements

- 15) We are almost at the end of the interview. Are there any comments that you would like to make or want to add that you think might be important?

To finish the interview, I would like to ask the final few questions.

Socio-demographic Information

- 1) What is your age?
- 2) What was your previous occupation?
- 3) What is your highest enjoyed education level?
- 4) What is your current family situation? Do you have a spouse, children or grand- children?

This is the end of the interview, I would like to thank you for your collaboration!