Perspectives of Older Adults on Assistive Robot Support at Home

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Background

Globally, about 46% of older adults (65+) have difficulty or receive help with self-care, mobility, or activities at home. (UN, Aging and Disability)



Technologies such as assistive robots have tremendous potential to support these individuals in the home environment.

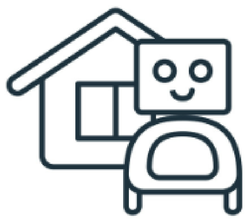


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Research Aim

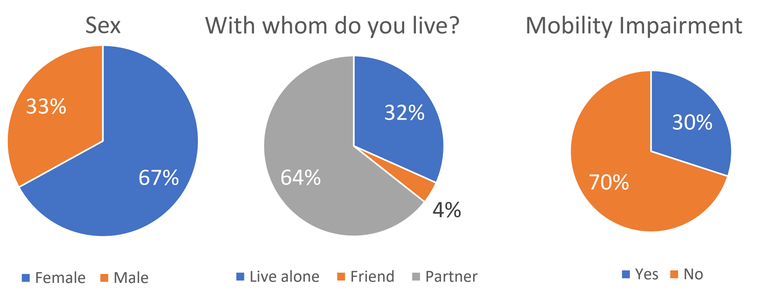
To understand older adults' perceptions about the potential for use of assistive robots in their home.

Research Questions

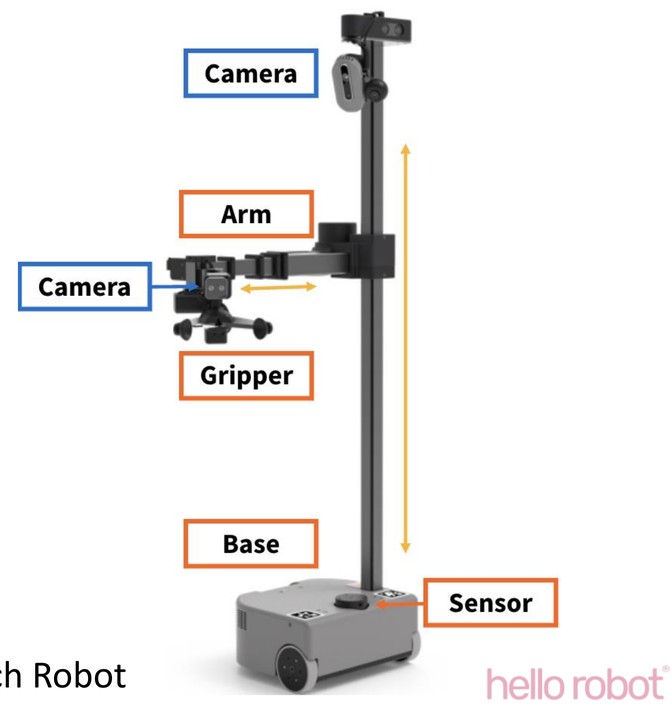
1. What are the general perceptions of older adults about aging independently?
2. What are their views about using a robot in general to support aging independently?
3. How might older adults use an assistive robot to support their everyday home activities?
4. What are the facilitators and barriers to older adults' acceptance and use of an assistive robot in their homes?

Participants

N = 27 (Age = 60-79 years)



The Robot



Stretch Robot

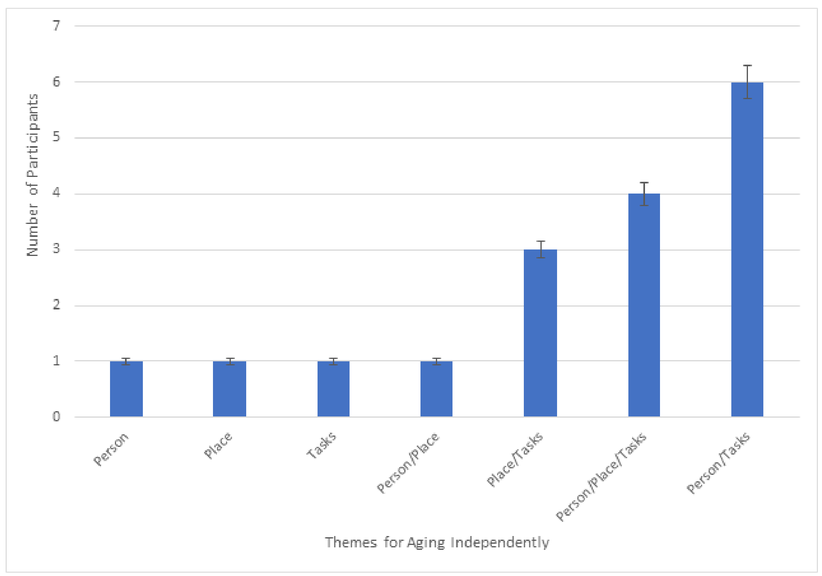
Study Flow

Mixed-methods approach

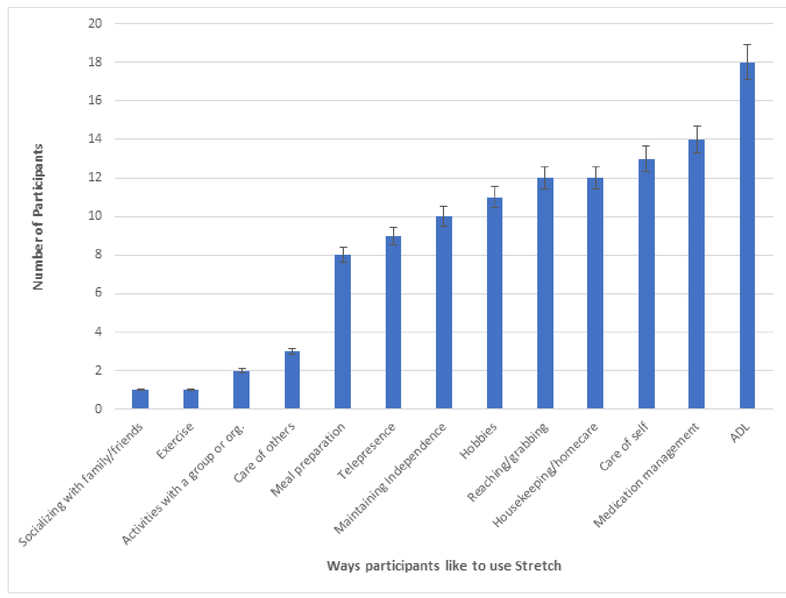
Recruitment	Screening	Pre-Interview	Interview	Post-Interview
Age 60+ Access to Zoom Access to computer	Confirmation of: 60+ Able to Zoom Access to computer No cognitive impairment	Consent	Part 1: Stretch Introduction Video	Robot Trust Questionnaire
		TechSAge Background Questionnaire	Part 2: Task Specific Videos	Robot Familiarity and Use Questionnaire
		Robot Trust Questionnaire	Part 3: ADL Support Videos	Debriefing and Compensation
	Scheduling	Robot Familiarity and Use Questionnaire		
		General Questions on Aging Independently App usage Mobility limitations		

Results & Discussion

Perceptions about aging independently

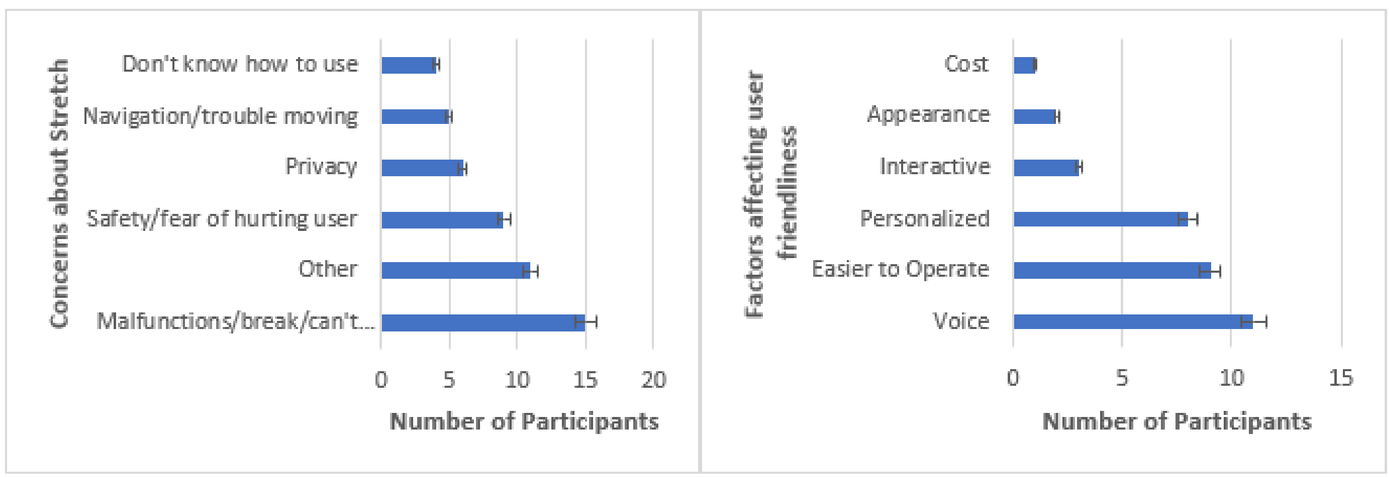


Older adults' views about using a robot



Facilitators and barriers to acceptance

- Ease of use
- User friendliness
- Adaptability through attachments
- Concerns



Implications for design

1. Older adults are open to using an assistive robot to support independence in their homes.
2. Assistance with activities of daily living is the most common among older adults.
3. Perception of the robot's usefulness in the homes stands out as a facilitator to acceptance.
4. It is critical to consider the facilitators alongside the concerns that the older adults expressed, such as ease of fixing malfunctions, safety, and privacy management

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