Effects of Survey Mode on Responses On Social Connectedness Questions Among Older Adults

December, 2019

AARP Foundation
For a future without senior poverty.

Social Policy Research Associates

Outline

- Background for the study

- Measuring social connectedness

- Research questions

- Study design

- Analytical sample

- Findings

Background

Social isolation affects older adults

AARP Foundation designed an **intervention** to reduce it

Need to measure **outcomes** across different programs

Selecting measures: Duke Social Support Index (DSSI)

Social Isolation as a public health issue

- Older adults are among those most at risk

- The WHO now lists "social support networks" as a determinant of health

- Addressing social isolation is a priority in some advanced industrialized nations (UK, Japan)

- Robust body of scientific evidence that having adequate social support is linked to physical and mental health benefits

Connect2Affect

- An intervention designed to help connect older adults by enabling them access to community information using their voice through an Alexa device

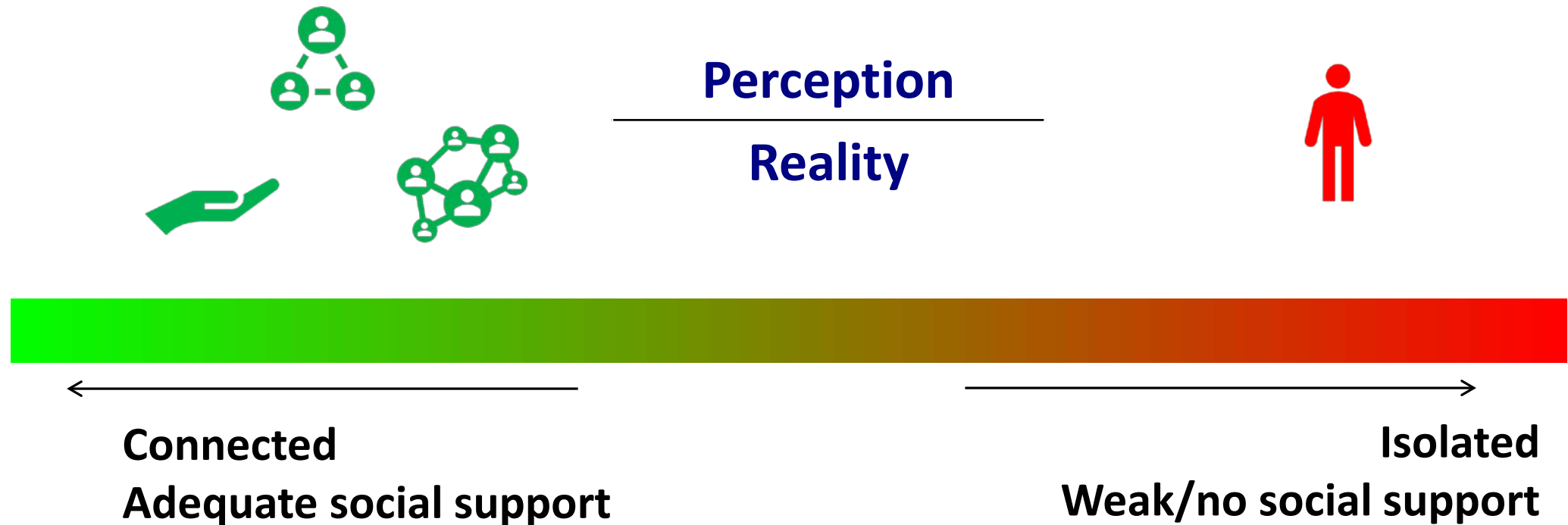**Connects residents through peer-to-peer mentors**

On-demand access to information

Supports active engagement

Measuring Social Connectedness

Social support as a measure of social connectedness

$$\frac{\text{Perception}}{\text{Reality}}$$

Connected
Adequate social support

Isolated
Weak/no social support

What is the Duke Social Support Index?

- A composite measure of social support among older adults

- An original (35 items) and abbreviated version (10 items)

- Designed to be administered in person by trained interviewers

The DSSI measures 4 key dimensions of social support:

1. Social network size
2. Social interaction
3. Subjective social support
4. Instrumental support

10-Item Duke Social Support Index

NETWORK SIZE & SOCIAL INTERACTION

Q1. Other than members of your family, how many persons in this area within one hour's travel of your home do you feel you can depend on or feel very close to?

Q2. How many times in the past week did you spend time with someone who does not live with you – that is, you went to see them, or they came to visit you, or you went out together?

Q3. How many times in the past week did you talk or text with someone on the telephone – friends, relatives, or others?

Q4. About how often in the past week did you go to meetings of clubs, religious groups, or other groups that you belong to (other than at work)?

10-Item Duke Social Support Index

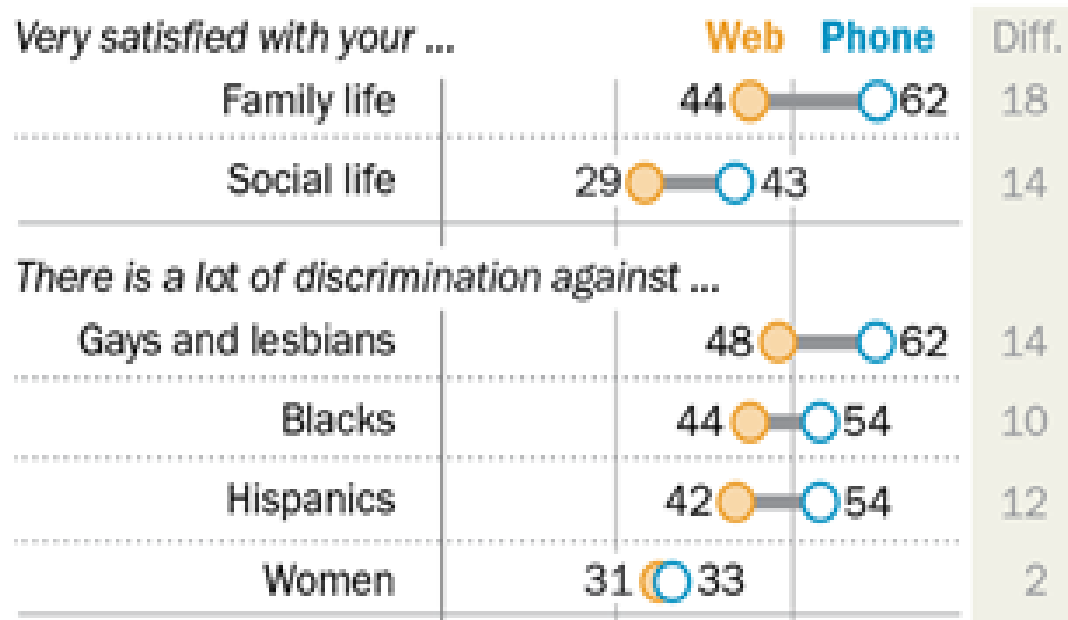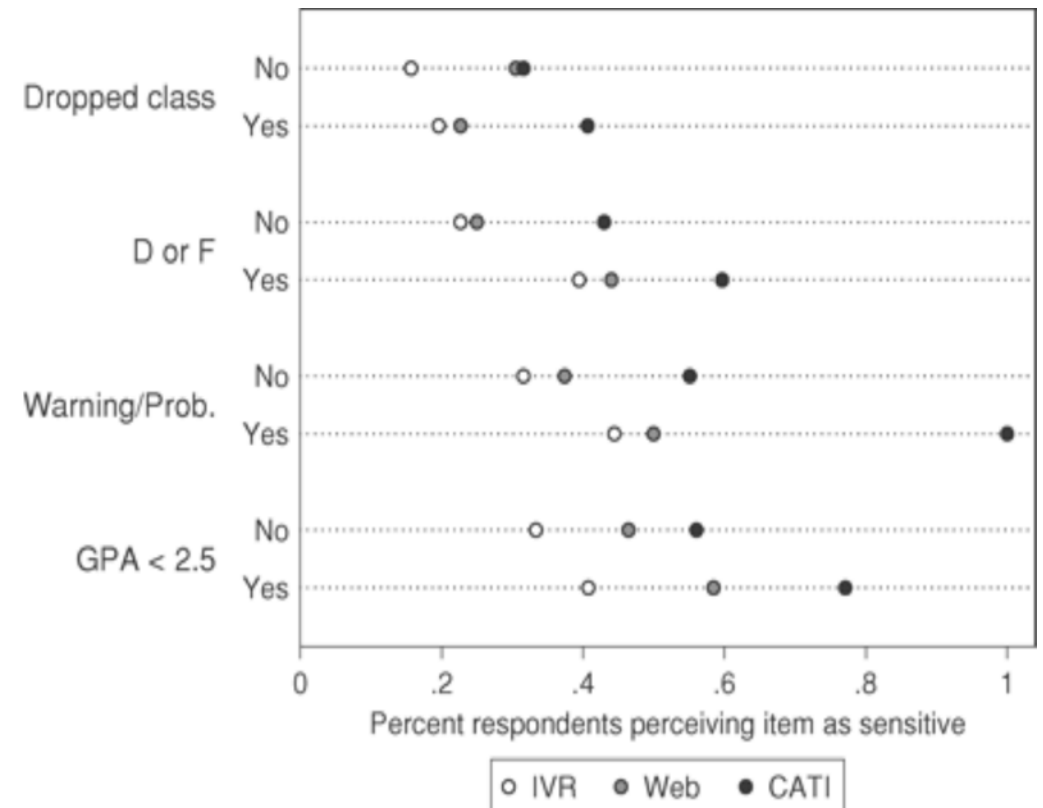| SUBJECTIVE SOCIAL SUPPORT |
|---|
| **Q5.** Do family and friends understand you |
| **Q6.** Do you feel listened to by family and friends? |
| **Q7.** Do you feel useful to family and friends? |
| **Q8.** Do you know what's going on with family and friends? |
| **Q9.** Do you feel you have a definite role in family and among friends? |
| **Q10.** Can you talk about your deepest problems with some family members or friends? |

1= Most of the time
2= Some of the time
3= Hardly ever

Will Survey Mode Affects Answers?

Different Answers on Web & Phone

% giving answer in each survey mode

Very satisfied with your ...	Web	Phone	Diff.
Family life	44	62	18
Social life	29	43	14

There is a lot of discrimination against ...	Web	Phone	Diff.
Gays and lesbians	48	62	14
Blacks	44	54	10
Hispanics	42	54	12
Women	31	33	2

Mean Sensitivity Ratings, by Item, Mode, and True Status

Percent respondents perceiving item as sensitive

○ IVR ● Web ● CATI

Research Questions

RQ1   Are there differences on DSSI scores by survey mode?
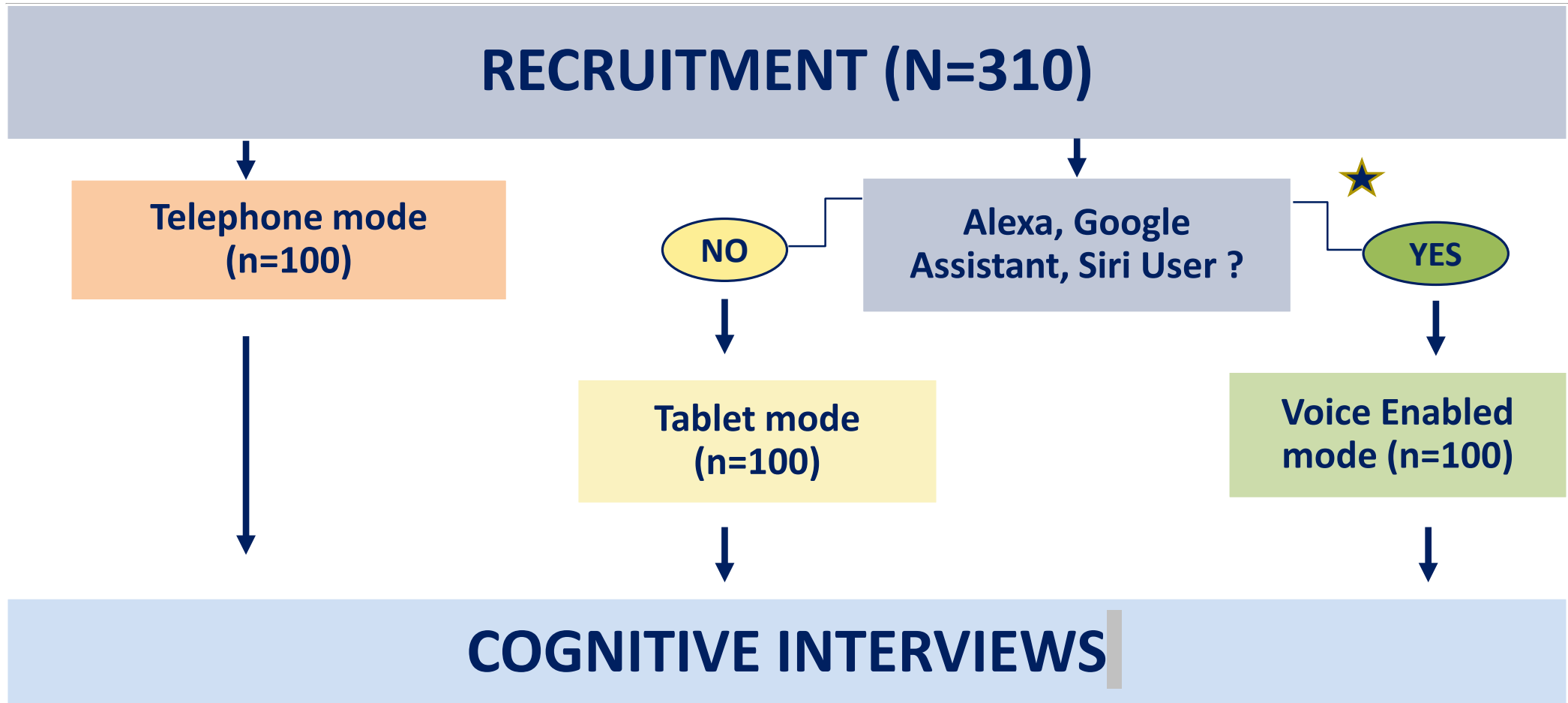
RQ2   Are DSSI scores different for older adults ?

RQ3   What are participants' opinions on the different survey modes?

Study Design: Testing Survey Modes

RECRUITMENT (N=310)

Telephone mode (n=100)

Alexa, Google Assistant, Siri User ?

NO

YES

Tablet mode (n=100)

Voice Enabled mode (n=100)

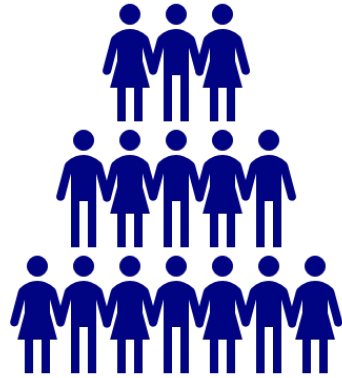**COGNITIVE INTERVIEWS**

Screener Criteria

- Criteria for the screener
  - **County**
  - **Age (50+)**
  - Gender
  - Race/Ethnicity
  - Disability/Impediments
  - Income
  - Marital Status
  - **Household size**
  - **User Alexa, Google Assistant, Siri**
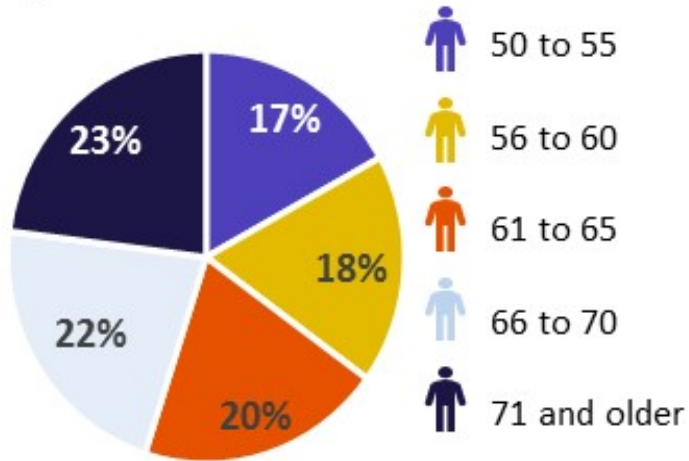
Recruiting Strategies

Panel Participants

CBOs

Strategic Ads

Stratified Random Sample

Recruitment strategies for voice enabled and tablet samples and phone sample were somewhat different

Demographic Characteristics of Study Participants

Age

- 50 to 55
- 56 to 60
- 61 to 65
- 66 to 70
- 71 and older

17% · 18% · 20% · 22% · 23%

Household Size

2/3 Lived alone

Mobility

- No mobility issues, 62%
- Trouble getting around, 32%
- Homebound, 6%

Income

60% with incomes under $40k

RQ1

Are there differences on DSSI scores by survey mode?

| 24.7 | 23.8 | 24.4 |

Voice-enabled   **Tablet**   **Phone**

Differences on DSSI scores by survey mode

DSSI Score 10-items	VOICE ENABLED	TABLET	PHONE	Wardian et.al.
Mean (SD)	24.7 (2.86)	23.8 (3.68)	24.4 (3.61)	24.4 (3.28)
Range	18-29	10-29	10-30	

RQ2

Are DSSI scores different for older adults?

- On average, older adults have higher DSSI scores than younger adults
  - Statistically significant
  - Modest magnitude

- This relationship is consistent across survey modes
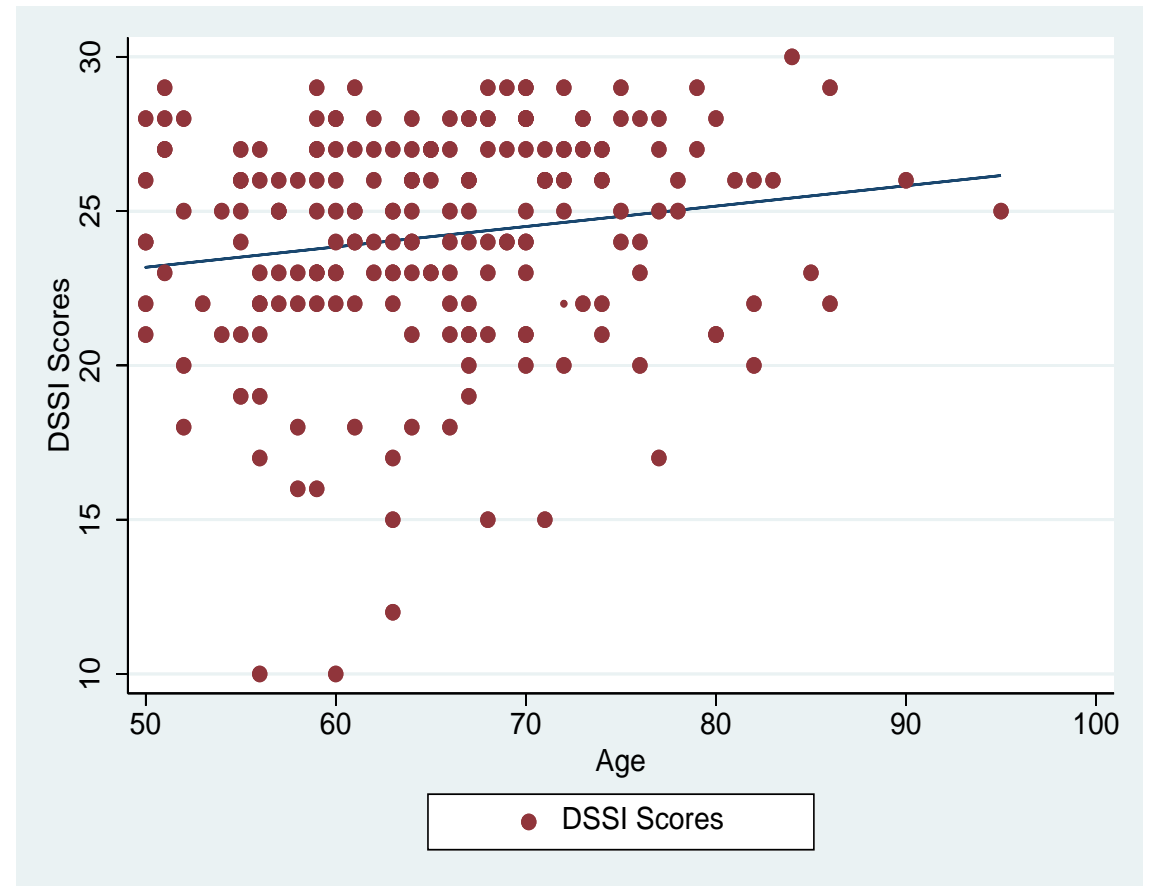
Are DSSI scores different for older adults?

- The relationship between DSSI scores and age is not monotonic

- Measuring connectedness at stages of transition:
  - *Before retirement*
  - *Right after retirement*
  - *Among the elderly*

Age	DSSI Scores
Age 60 or younger	**23.5**
61 – 65 years old	**23.9**
66 – 75 years old	**24.8 ***
76 years old and older	**24.2**

Participants' Opinions About Voice-Enabled Mode

Alexa doesn't rely on rapport between an interviewer and a respondent, and at the same time it protects the person taking the survey from being embarrassed to share that level of intimate detail about themselves, especially if they don't feel good about their social network.

I enjoyed taking the survey using Alexa a lot, it was fun. It was fun because it seemed that Alexa communicated with me personally, her voice was crisp, and she could hear clearly. I had a very good experience.

… this device is listening all the time

Did you see? It turned off…

… this device could be a good therapist.

Data Collection Notes: Voiced-Enabled

- General enthusiasm to use Alexa

- Instructions were *really* necessary (repeating, how to restart)

- Issues with navigation:
  - Ability to go back
  - Alexa not recognizing answers (e.g. twice/couple)
  - Alexa going silent/turning off

- Participants' willingness to persist

- Back-end data

Participants' Opinions About Tablet Mode

It was very easy to use the iPad, the screen size, everything was in bold, easy to navigate, big enough, even though I have carpal tunnel.

... I probably need a thinner finger

... I'm not sure how to enter the number here

I felt like a techy by the time I was done.

... this works well for me, but my brother has Parkinson's, so it depends

Data Collection Notes: Tablet

- About one quarter of participants needed help:

  - Difficulty figuring out on placing your finger in the box to enter info
  - Difficulty using iPad's integrated keyboard

- Issues with navigation:

  - Larger font-size
  - A "back button" to verify/change an answer
  - The need to scroll down to see "next" button
  - An "end" button
  - Stylus pen (arthritis)

Participants' Opinions About Phone Mode

I like to do surveys over the phone because I'm in my own personal space, I feel comfortable

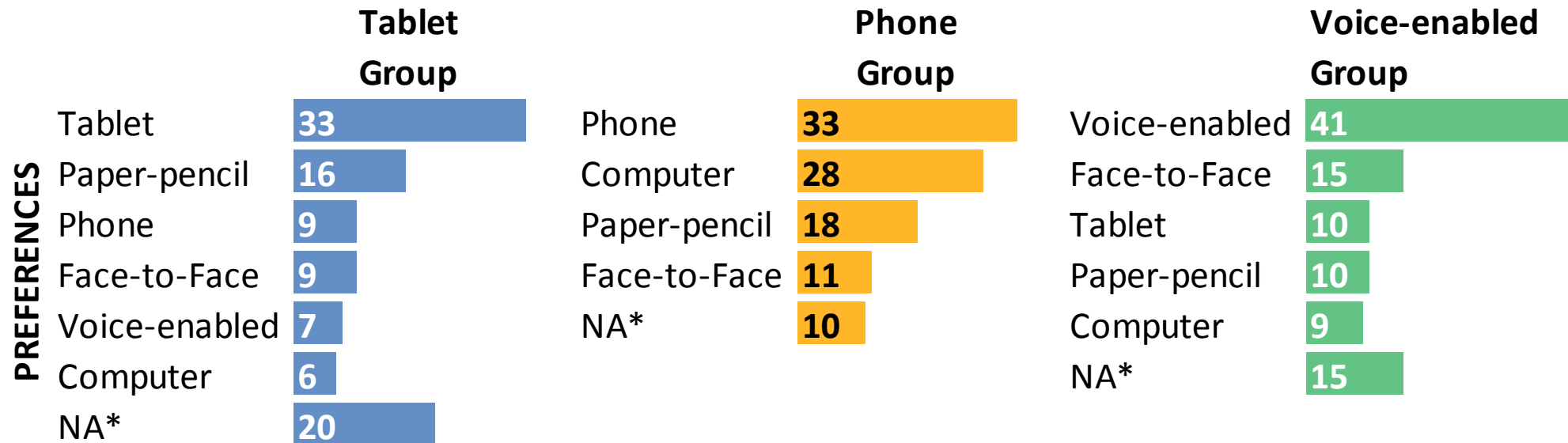It's refreshing to hear a real human on the phone

I only agreed to participate because AARP is a trusted source, I get their magazine

I am cautious when I answer the phone because of the scams

Data Collection Notes: Phone

- Difficulty gaining participation, alternative modes of recruiting

- Reluctancy to answer calls from unknown numbers

- Issues during calls:

  o Adjust the pace and repeating

  o Hearing issues

  o Pressure to be off the phone

    ➢ Answering participants' questions in 'real time'

Survey Mode Preferences Among Participants

Tablet Group

PREFERENCES

Tablet	33
Paper-pencil	16
Phone	9
Face-to-Face	9
Voice-enabled	7
Computer	6
NA*	20

Phone Group

Phone	33
Computer	28
Paper-pencil	18
Face-to-Face	11
NA*	10

Voice-enabled Group

Voice-enabled	41
Face-to-Face	15
Tablet	10
Paper-pencil	10
Computer	9
NA*	15

Source: Cognitive interviews. (*) NA includes respondents who did not express a clear preference for a single survey mode, preferring two or more modes equally.

Q & A

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