

APPENDIX A: WATCH-PD QUALITATIVE SUBSTUDY – SURVEY QUESTIONS

Note: The following survey questions will be administered to all participants (N=80) in the Parkinson's cohort of the WATCH-PD study. Questions in the survey are similar to items that will be explored in-depth in the qualitative interview with a subset of purposefully selected participants (N=40). The purpose of these questions is data triangulation. Quantitative findings from the survey of all participants will provide support for the qualitative analysis and will enhance validity and transferability/generalizability of subsequent findings.

This is a computer-based survey, which will be administered using Redcap.

Prior to administering the survey, the RA will confirm:

Participant has been deemed eligible Yes No

Participant has consented Yes No

Introduction to Survey

The purpose of this survey is to better understand **what symptoms of Parkinson's are most bothersome and important to you** and how information captured in the WATCH-PD study relates to your experience with Parkinson's disease symptoms.

The data we collect will be used to improve the use of digital health technologies to monitor important features of Parkinson's disease.

We want to hear your perspectives, so answer questions in whatever way you feel best reflects you.

Thank you for taking time to complete this survey!

Background

[Demographic data here – link to baseline data via Parent Study ID]

1. Have you started any new medications for your Parkinson's Disease since you first started in the WATCH-PD study?

(Yes/No)

2. Please list any new medications you are taking to help treat your Parkinson's Disease symptoms:

(Open response – branching from Q1)

Section 1. Explore Parkinson's Disease Symptoms

1. Please describe the symptoms of Parkinson's disease that you experience.

(Open response)

2. Of the symptoms you described, **which are the most bothersome to you** and why?

(Open response)

3. Have the symptoms you find most bothersome changed over time? If so, how?

(Open response)

Of the following symptoms that were measured by WATCH-PD, please rate how bothersome each symptom is to you on a scale of 0-10, with 10 being the most bothersome.

[The following scale items will use numeric visual analog sliders 0-10 with anchors at "0" and "10" as below.]

4. Shaking (tremors)

(Range: 0=Not bothersome...10=Very bothersome)

5. Slow movements

(Range: 0=Not bothersome...10=Very bothersome)

6. Difficulty walking

(Range: 0=Not bothersome...10=Very bothersome)

7. Difficulty with balance

(Range: 0=Not bothersome...10=Very bothersome)

8. Trouble with fine motor (example: buttoning your clothing)

(Range: 0=Not bothersome...10=Very bothersome)

9. Altered mood (depressed, anxious, hopeless)

(Range: 0=Not bothersome...10=Very bothersome)

10. Excessive sleepiness

(Range: 0=Not bothersome...10=Very bothersome)

11. Feeling tired or fatigued

(Range: 0=Not bothersome...10=Very bothersome)

12. Difficulty thinking in general

(Range: 0=Not bothersome...10=Very bothersome)

a. Difficulty concentrating

(Range: 0=Not bothersome...10=Very bothersome)

b. Difficulty remembering

(Range: 0=Not bothersome...10=Very bothersome)

c. Slow thinking

(Range: 0=Not bothersome...10=Very bothersome)

13. Difficulty speaking in general

(Range: 0=Not bothersome...10=Very bothersome)

a. Difficulty forming sounds (articulating)

(Range: 0=Not bothersome...10=Very bothersome)

b. Quiet speech

(Range: 0=Not bothersome...10=Very bothersome)

c. Monotone speech

(Range: 0=Not bothersome...10=Very bothersome)

14. Trouble with visual/spatial or depth perception (example: estimating distances)

(Range: 0=Not bothersome...10=Very bothersome)

15. Of these, which symptoms are the **most important** to you currently?

(Multi select from list as above)

Section 2. Perspectives on WATCH-PD Battery

In the WATCH-PD study you completed a variety of tasks using the iPhone and Apple Watch. The goal of the questions below is to see if the tasks assessed via WATCH-PD are relevant and meaningful to you as a person with Parkinson's.

MOVEMENT (MOTOR) TASKS

On a scale from 0—10, how relevant were each of the following WATCH-PD motor tasks to monitoring the symptoms of Parkinson's that you experience?

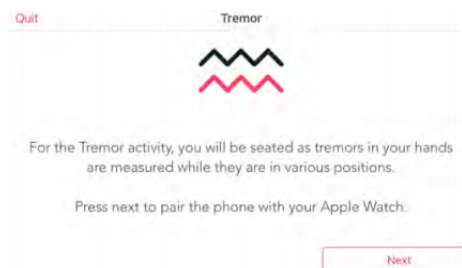
[The following scale items will use numeric visual analog sliders 0-10 with anchors at "0" and "10" as below.]

1. Walking and balance task



(Range: 0=Not relevant at all....10=Very relevant)

2. Tremor task



(Range: 0=Not relevant at all....10=Very relevant)

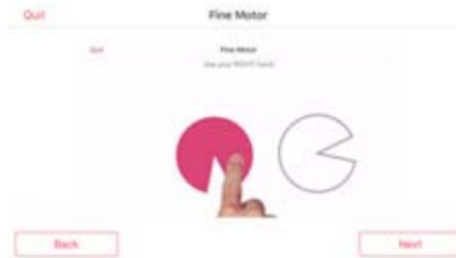
3. Please explain what about these motor tasks was relevant. If it wasn't relevant to you, why not?

(Open response)

(FINE MOTOR) COORDINATION TASKS

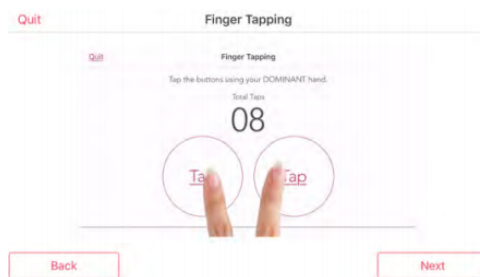
On a scale from 0—10, how relevant were each of the following WATCH-PD [fine motor coordination tasks](#) to monitoring the symptoms of Parkinson's that you experience?

4. Shape task



(Range: 0=Not relevant at all....10=Very relevant)

5. Finger tapping task



(Range: 0=Not relevant at all....10=Very relevant)

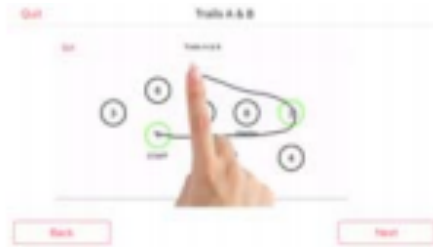
6. Please explain what about these [fine motor coordination tasks](#) was relevant. If any of these were NOT relevant to you, why not?

(Open response)

(COGNITIVE) THINKING TASKS

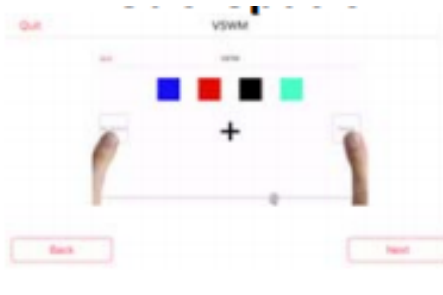
On a scale from 0—10, how relevant were each of the following WATCH-PD cognitive thinking tasks were to monitoring the symptoms of Parkinson's that you experience?

7. Trails task



(Range: 0=Not relevant at all....10=Very relevant)

8. Visual-spatial task



(Range: 0=Not relevant at all....10=Very relevant)

9. Symbols swap task



(Range: 0=Not relevant at all....10=Very relevant)

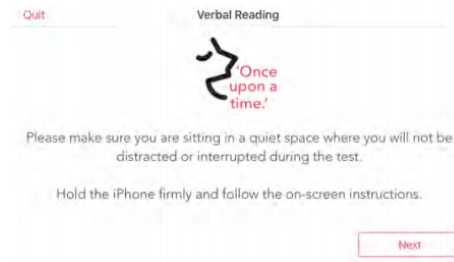
10. Please explain what about these cognitive thinking tasks was relevant. If any of these were NOT relevant to you, why not?

(Open response)

SPEAKING & ARTICULATION TASKS

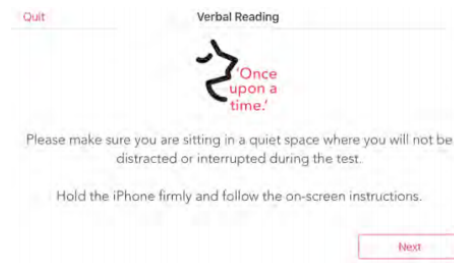
On a scale from 0—10, how relevant were each of the following WATCH-PD speaking tasks were to monitoring the symptoms of Parkinson's that you experience?

11. Reading task



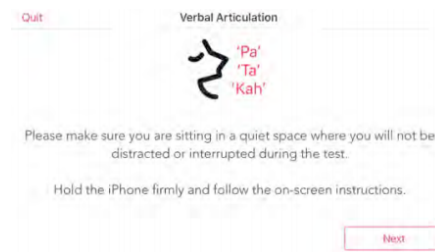
(Range: 0=Not relevant at all....10=Very relevant)

12. Phonation task



(Range: 0=Not relevant at all....10=Very relevant)

13. Articulation task



(Range: 0=Not relevant at all....10=Very relevant)

14. Please explain what about these speaking tasks was relevant. If any of these were NOT relevant to you, why not?

(Open response)

SELF ASSESSMENT QUESTIONS

On a scale from 0—10, how relevant were each of the following self-assessment questions that you answered on your smartphone to monitoring the symptoms of Parkinson's that you experience?

15. Mood: (how would you rate your mood right now?)

(Range: 0=Not relevant at all....10=Very relevant)

16. Sleepiness: (How sleepy do you feel right now?)

(Range: 0=Not relevant at all....10=Very relevant)

17. Thinking clarity: (How clear is your thinking right now?)

(Range: 0=Not relevant at all....10=Very relevant)

18. Tremor: (How severe is your tremor right now?)

(Range: 0=Not relevant at all....10=Very relevant)

19. Movement: (How difficult is it for you to move right now?)

(Range: 0=Not relevant at all....10=Very relevant)

20. Please explain what about these self-assessment questions was relevant. If any of these were NOT relevant to you, why not?

(Open response)

FINAL QUESTIONS

1. In general, on a scale from 0-10, how well do you feel WATCH-PD tasks assessed or related to the important symptoms of Parkinson's disease that you experience?

(Range: 0=not all....10=completely)

2. Which of your symptoms do you feel were best captured in the WATCH-PD study and why?

(Open response)

3. Were there symptoms you experienced that were not captured in WATCH-PD?

(Open response)

4. Thinking back on all the tasks you completed on the iPhone and Apple Watch, are there specific tasks that you feel should be eliminated, and if so why?

(open response)

5. Are there other aspects of your Parkinson's Disease experience that you feel should be assessed through digital devices that were not captured in WATCH-PD?

(open response)

6. Do you have other comments or suggestions for how we could improve the use of digital devices to measure symptoms of Parkinson's disease that would be meaningful to you personally?

(open response)

Conclusion

This concludes the survey. Thank you for your time and for all the insightful information and experiences you have shared!