BFR – Usability Test Results

Siddhesh Mahadeshwar

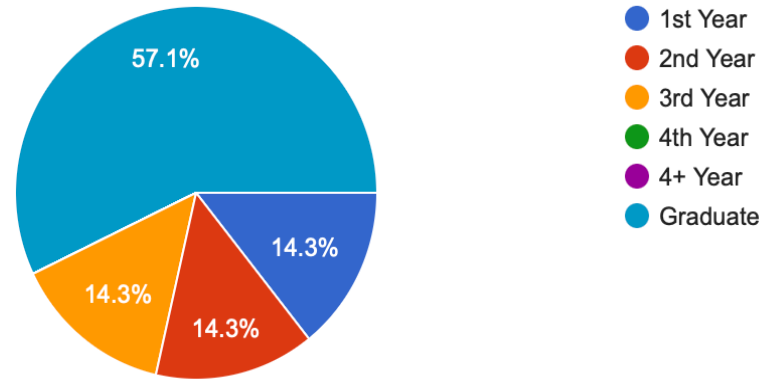
Testing Process and Data Collection

- Conducted a pre-testing questionnaire
- Ran through 4 scenarios with descriptions to prompt users to explore different areas of the application
- Measured time taken to complete each scenario
- Took notes on any facial reactions
- Took notes on overall testing observations
- Asked questions regarding each scenario
- Conducted a post-testing questionnaire

Pre-Testing Results

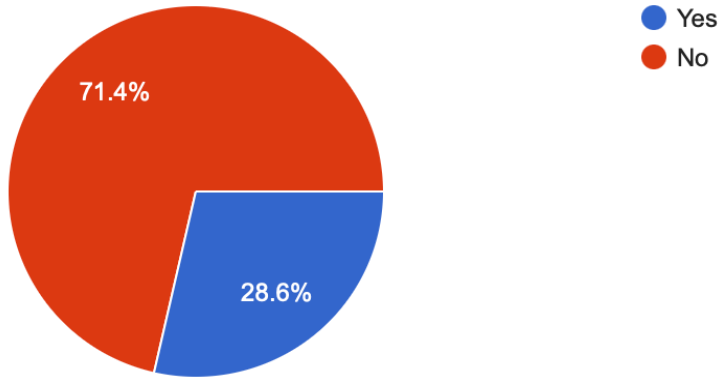
What is your level of education?

7 responses



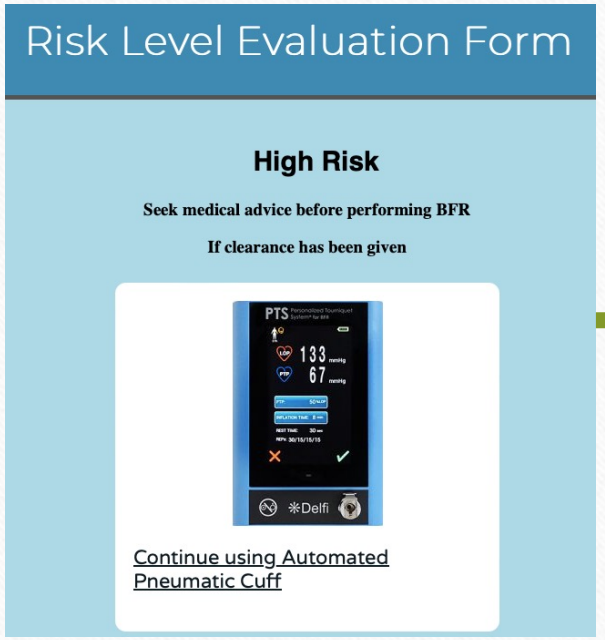
Do you know what is Blood Flow Restriction (BFR)?

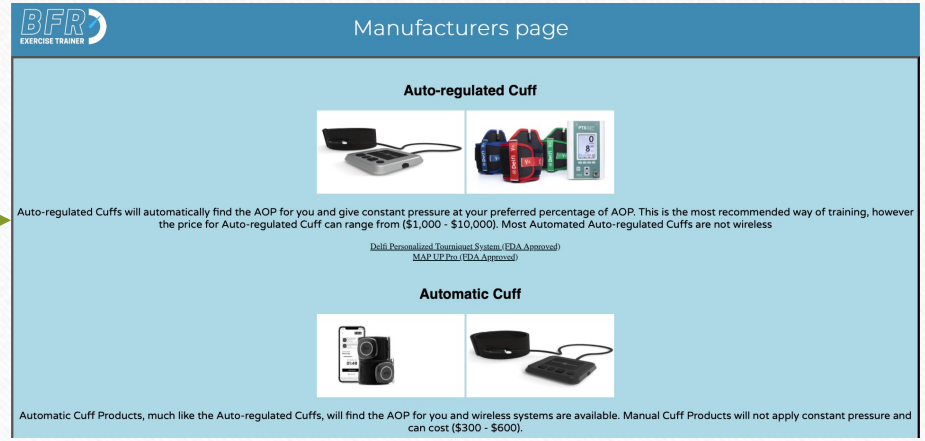
7 responses



Scenario 1 & Resulting Pages

- Scenario criteria:
  - Male
  - Diabetes
  - No budget limitations



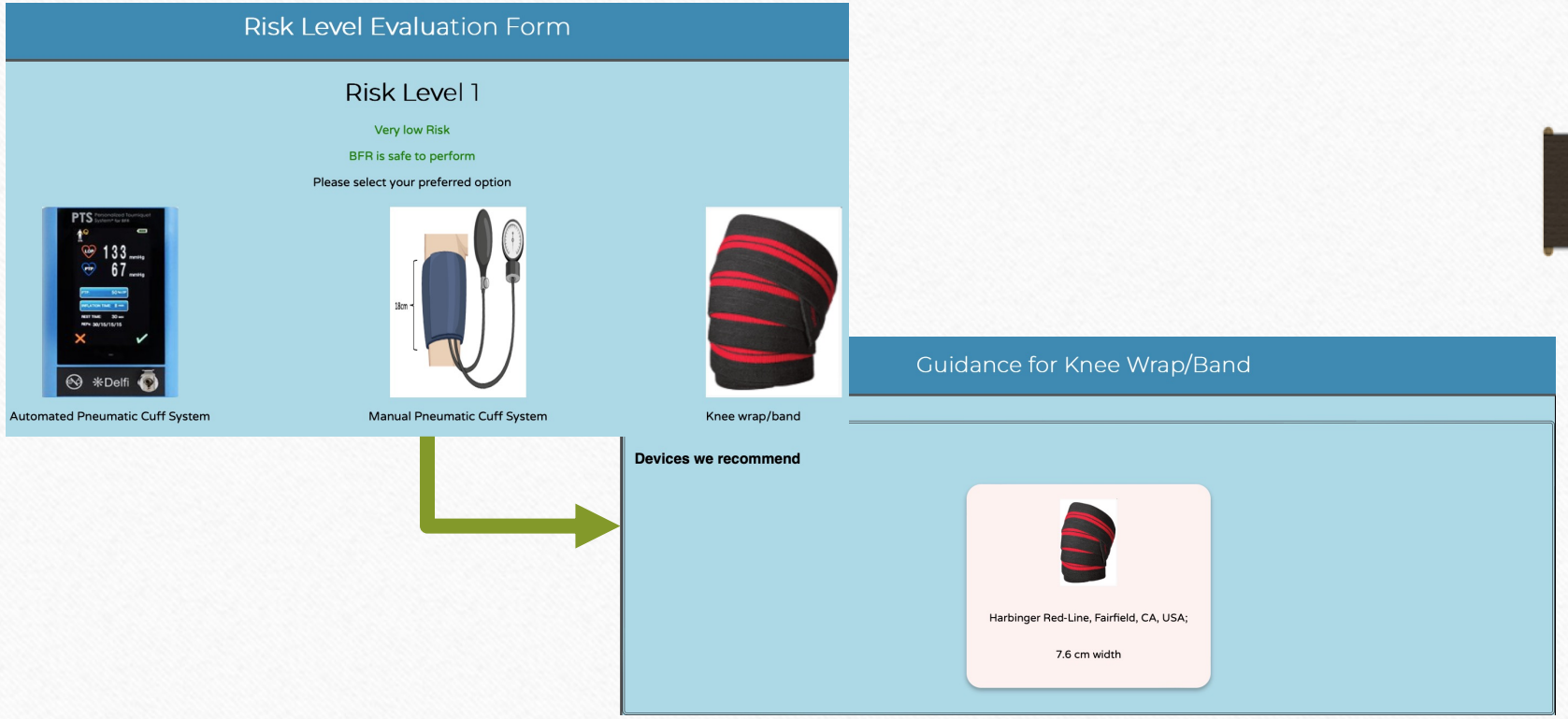


Scenario 2 & Resulting Pages

- Scenario criteria:
  - Female
  - BMI 25-30
  - Manual BFR preferred

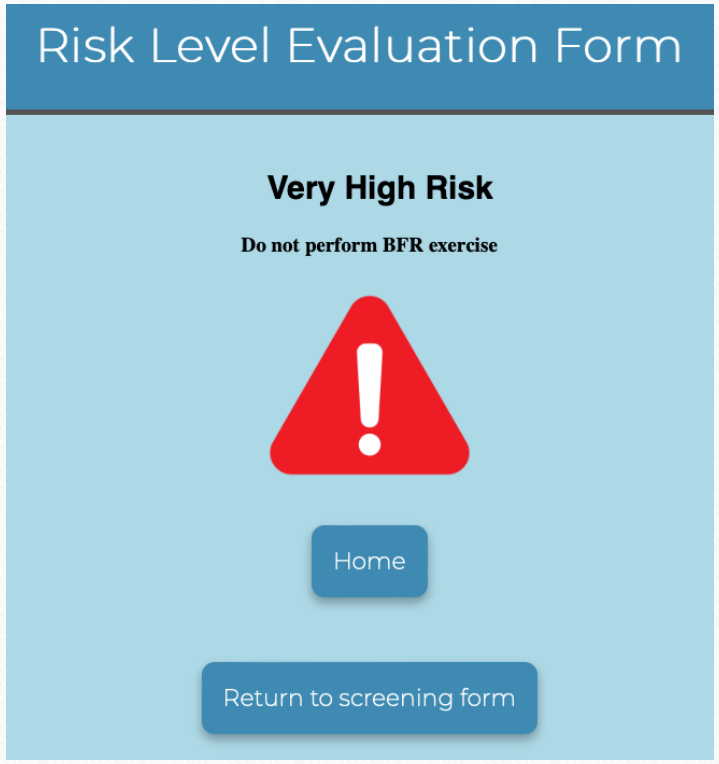
Scenario 3 & Resulting Pages

- Scenario criteria:
  - Male
  - 40-50 years age
  - Knee band/wrap preferred

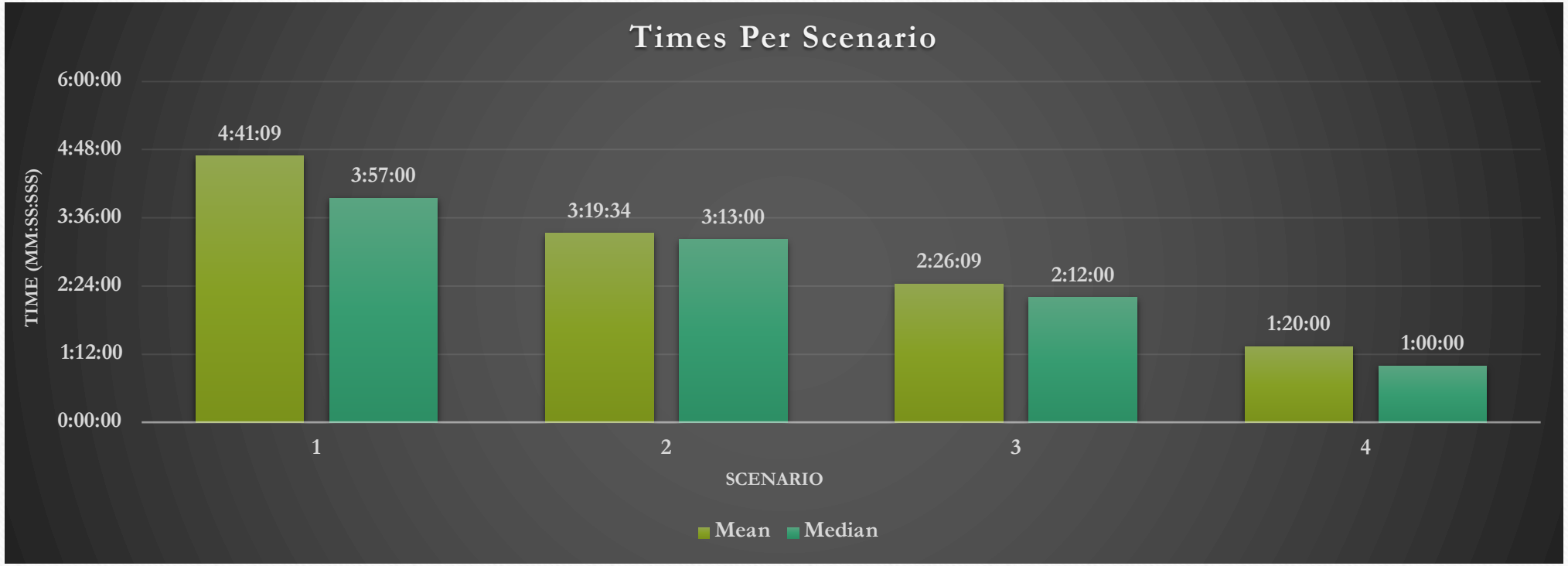


Scenario 4 & Resulting Pages

- Scenario criteria:
  - Female
  - Family history of blood clotting disorders



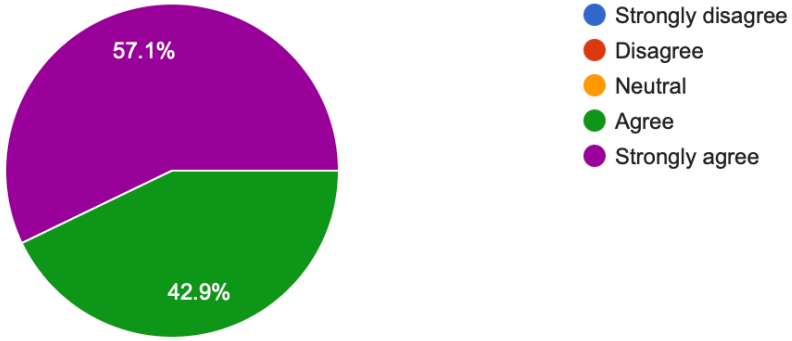
Test Results – Time to Complete Scenarios



Post-Testing Results

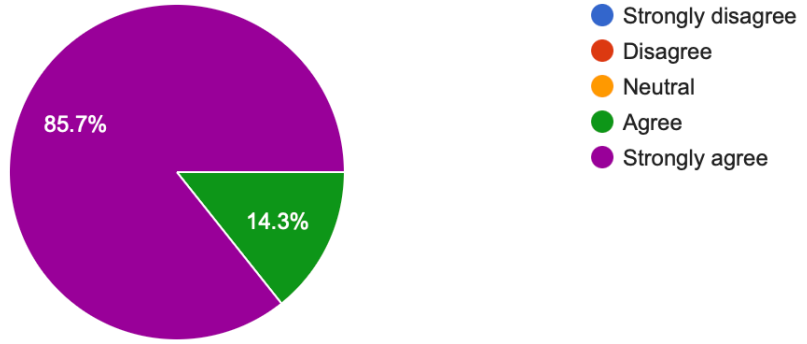
Overall, this application was easy to use for the intended task.

7 responses



Overall, I enjoyed using this application.

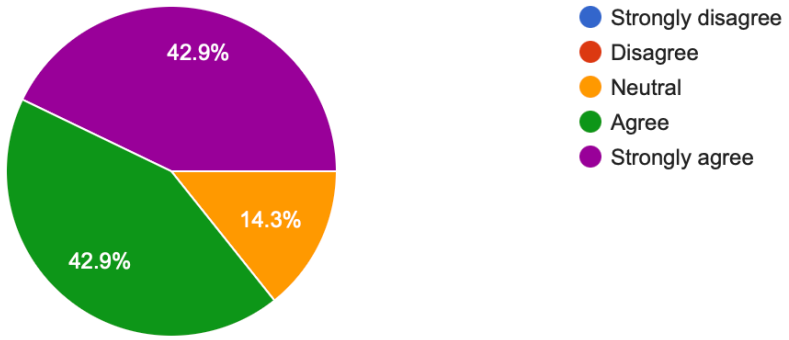
7 responses



Post-Testing Results

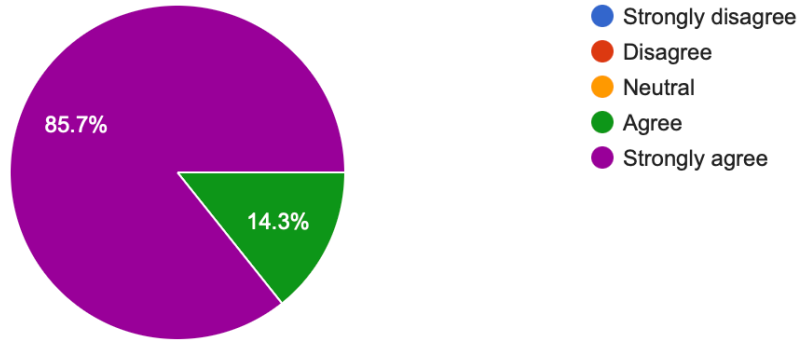
I would use this application again.

7 responses



I understood the purpose of this application.

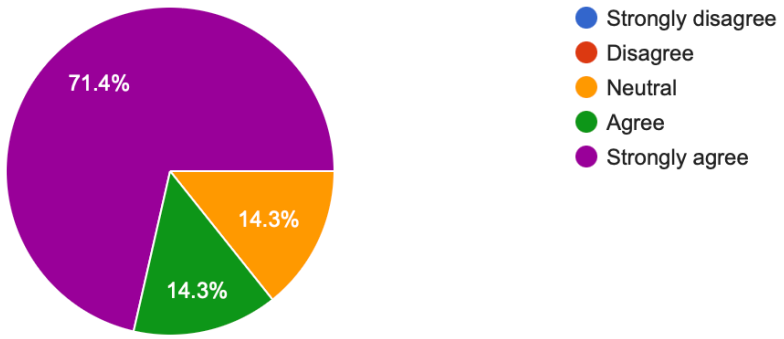
7 responses



Post-Testing Results

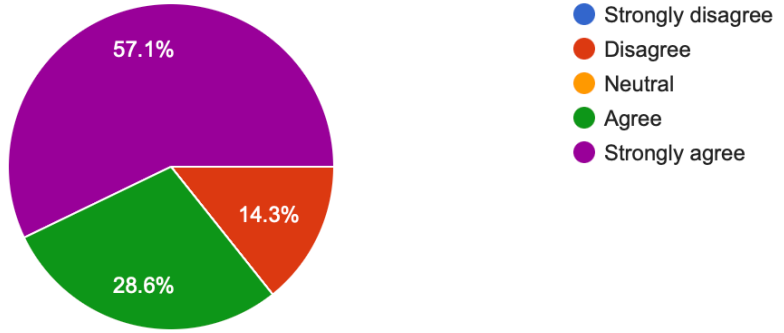
Imagining that I am the intended user, this application would be useful for me.

7 responses



The application appears to solve a problem or facilitate an inconvenience.

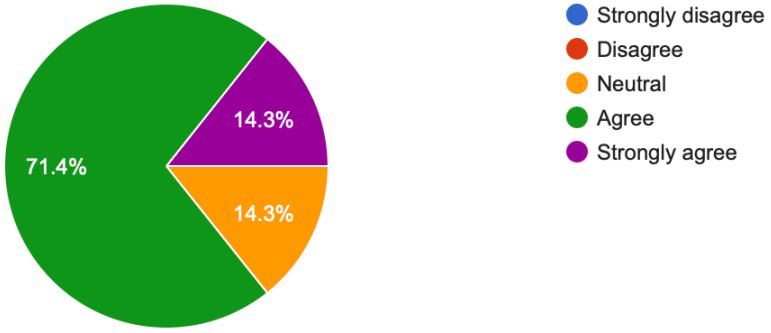
7 responses



Post-Testing Results

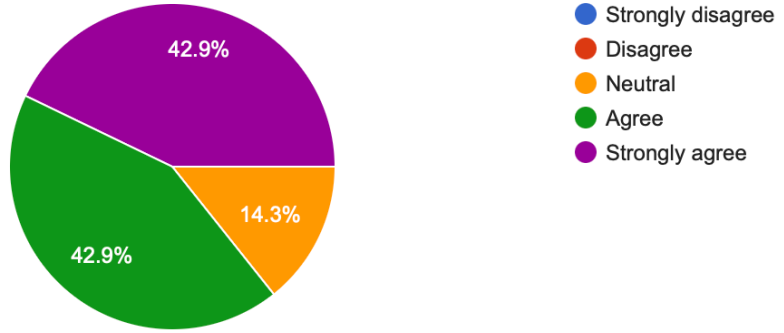
The application appeared to be professional.

7 responses



Without additional guidance, the application itself was clear to use.

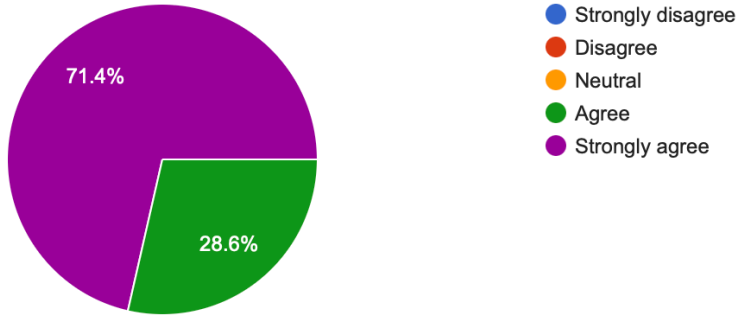
7 responses



Post-Testing Results

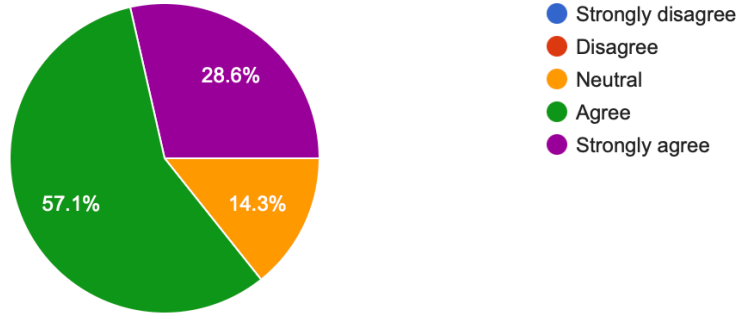
I would recommend this application to a medical practitioner who may need such a technology.

7 responses



The user interface and experience were well thought out even for people who may not have a technical background.

7 responses



Common Usability Questions

- Did you feel lost/confused at any point during the test?
- Did the front page of the website clearly communicate how to go through the general workflow of the application?
- Did you think the initial information page was helpful to learn about the devices?
- Was the “High Risk” page communicative that BFR is not recommended?

Bugs

Bug Number	Summary	Severity (1 – 5)
1	Input values for manual cuff page should be "required"	4
2	Input validation on manual cuff page	3
3	Submit button on manual cuff page requires excessive scrolling to reach	4
4	404 ERROR: clicking on "Return to Screening Form" from High-Risk page	5
5	Some pages open on new tabs but not all (lack of consistency)	2

Select Upper/Lower Body Application

- ○ Upper Body
- ◉ Lower Body

Choose Your Cuff Width

- ○ 5cm
- ◉ 11cm
- ○ 13cm
- ○ 18cm

Please enter the following information

Systolic Blood Pressure (mmHg)
120

Diastolic Blood Pressure (mmHg)
abc

Limb Circumference (cm)

45 Upper body instructions Lower body instructions

Back Reset Submit Query

Recommended Changes

- Assuming that all bugs will be fixed, here are some other recommendations:
  - Consistency of button sizes for all pages
  - Provide some hints on every page to help the user with their options
  - The Help Page should open on a new tab by default from every page
  - The Help Page should have more comprehensive information for every reachable page
  - Back buttons and Homepage buttons should be available on all pages
  - *Temporarily save screening form responses if the user uses the application's Back button