***Team #3 Senior Project Stakeholders Questionnaire***

1. How would your profession benefit from this project?

We need ways to objectively measure treatments for 1) broadening our understanding in research and 2) improving patient outcomes.

1. What in your view would make this a successful project?

If you develop something I can then use in clinic with patients, it’s a success.

1. What functions are desired?

Although we have seen some theoretical benefit from patients using the CTAR, there’s a lot we don’t know about it. Namely, how much pressure and how many repetitions are required to make effective change/outcomes in the patient. We can simply count repetitions, but at present do not have a way to measure 1) how much pressure is required and 2) how much pressure a patient is exerting.

Therefore, we must have an objective way to measure this pressure. Desire functions include: 1) portability (including a way to power the software and hardware), 2) accuracy (of kPa measurements), 3) storage (a way to store patient data, even if very temporary), 4) visual representation (a way to “see” pressure/effort represented somehow that clinicians and patients can see), 5) cleanable or disposable (patients are often sick. Either each bulb needs to be single-patient use or the material needs to be able to be cleaned)

1. What is the priority of each feature or function?

I don’t understand what you mean!

1. What are the business requirements?

Has to be portable and cost effective. Price makes a difference in terms of who purchases…is the audience research institutions only? Then it can be more expensive and less portable. Is the audience 20k speech pathologists in the USA? Then it needs to have a reasonable purchase cost and be able to be moved easily across a variety of settings.

1. What results are required/desired?

Not sure how this is different than question #3.

1. Metrics to define success?

For your project? Or for an audience of speech pathologists?

1. Are there any other requirements we should be aware of?

Medicine constantly changes, updates need to be considered. Can the software be updated easily once devices are out in the public? Or will a whole new device need to be purchased?

1. Are there any products/projects related to this one?

The IOPI uses pressure bulbs to measure tongue/lip pressures, which is where I got the idea for a CTAR bulb.

1. Is there anything we didn’t discuss?

What is the long-term plan for this project, if any? Or, is it simply for your project only?

Currently, speech pathologists use a rolled-up towel or an inflated ball under the chin to provide resistance. We cannot quantify that resistance nor effectively change the resistance. Therefore, we need to start with the ability to measure the pressure to make change. Eventually, different resistances might be incorporated (like different weights on dumbbells) if it is determined that increased resistance leads to better or faster positive outcomes.

1. Would you prefer to remain anonymous in our paper or would it be ok to use your name?

I’d love to be listed and am stoked for this idea to come to fruition!