DESIGN RESEARCH PLAN

INJURY TRACKING FOR AMATEUR ATHLETES || SECTION AC

OVERVIEW

We are designing an injury tracking system for amateur runners and walkers. Stakeholders in this project include the athletes themselves, as well as healthcare providers (such as doctors and physical therapists), personal trainers, and other individuals who may benefit from interacting with data related to the athlete's injuries. Our primary participants for design research will be runners at the IMA as well as athletes from other sports who run or walk for exercise. At least one study participant will have done some physical therapy. Additional participants will include Woodinville High School's track and cross country coach and a physical therapist (our first plan is to interview a trainer/PT associated with UW's rowing team; if this isn't possible we will reach out to the UW Sports Medicine Clinic to find an interviewee).

We will use semi-structured interviews for our research. A set of baseline questions targeting our primary areas of interest will assist us in focusing on our most important data points, while not following a strict interview structure will allow for flexibility in exploring the individual perspectives that each research participant will bring to our research. The interview plan, which is detailed on the following page, focuses on data tracking in relation to injuries that affect running/walking. If applicable, we have follow-up questions regarding physical therapy. These will focus on the information provided to the therapist as well as tracking systems or apps that were used during therapy. Similarly, our interview guide for coaches/trainers/PTs focuses on the background information they need from patients to do their work efficiently and effectively. We are also interested in methods through which they track patient progress, as well as how they communicate with patients about ongoing symptoms.

ATHLETES

Primary goal: obtain information about past injuries, including diagnosis, treatment, and therapy

- Have you ever been injured? If so, how?
  - What was the injury, and how severe was it?
  - Did you see a healthcare provider?
    - What information did you use in making this decision?
    - **If yes:**
    - What information did you provide to the healthcare practitioner?
    - What information did the healthcare provider ask for? (Follow-up if first is not sufficiently informative)
    - **If no:**
    - Ask for elaboration on decision to not see an HCP
- Have you been to physical therapy before?
  - What information did you use in making this decision?
    - **If yes:**
    - What information did you provide to the healthcare practitioner?
    - What information did the healthcare provider ask for? (Follow-up if first is not sufficiently informative)
    - **If no:**
    - Ask for elaboration on decision to not see a PT (ex. HCP didn't suggest, etc.)
- Have you used an app related to exercise or injuries before?
  - Which one(s)?
  - What worked well and what didn't?
  - Have you used an app in conjunction with physical therapy before?

COACH

Primary goal: understand the coach's role in injury tracking (if any)

- Do you track your athletes' injuries?
  - If so, how?
- Do you think it is beneficial for athletes to track their injuries? Why or why not?

PHYSICAL THERAPIST

Primary goal: develop a better understanding of what data can be helpful for diagnosis/treatment of an injury

- What background information about the athlete is useful when diagnosing a patient or determining a treatment regimen? (ex. pain severity, location, other qualitative measures, time periods, etc.)
  - Do you find that patients are good or bad at providing this information? Are some better than others?
    - If so, why do you think they are better historians?
  - What information do you find most useful when working with an athlete?
- How do you track a patient's progress throughout their therapy?

- How do you track a patient's symptoms throughout their therapy?