**CSC 425 Deliverable 2: User Research & Problem Definition Submission**

**Student Name**: Jacob Alsobrook

**Branch Name**: d2-jacob-alsobrook

**Date Submitted:** August 29th, 2025

**Target User Group**

**Healthcare Workers**

Primarily ER workers who are struggling with managing strict schedules related to patient care

**Problem Description**

ER workers in busy or underfunded ERs are facing growing problems relating to time-management. Things like rotating patients, administering medications, or other factors that require strict time management are not communicated well to others or are lost in the day-to-day chaos of the job.

**Evidence of the Problem**

* According to the NIH (2025), “The constant influx of patients demands exceptional organizational capabilities and the ability to perform under pressure. Effective communication and teamwork in the ED ensure efficient collaboration among the multidisciplinary team, which is vital for delivering timely and effective care”
* “I need something to help me keep track of medication schedules and when to rotate immobile patients because we can get up to 5-7 of them at once” - Melissa, ER Nurse
* Research from the NIH says that many patients LWBS (leave without being seen) due to not feeling like their problems are addressed in a timely manner.

**“How Might We” Statement**

How might we improve team communication and patient management for ER workers so that their workplace can run with more cohesion?

**User Persona**

**Name**: Brandon Smith

**Occupation**: ER Nurse

**Age**: 45

**Location**: Paducah, KY

**Goals**: Treat patients efficiently and consistently

**Frustrations**: Oftentimes there are so many tasks to do in the ER that he loses track of important tasks. Patients and ER itself may fall behind when this happens to several workers. And it does.

**Technology Comfort Level**: Somewhat higher than average (uses phone, familiar with technology use in healthcare)

**Ethical Lens Applied:**

**Principle**: Consistent treatment to all patients AND ER workers. IF let unchecked, ER wait times and management will get worse, and patient care will decline. By designing a program to help manage time in the ER better, harm should be reduced.

* **Application**: This issue violates consistent treatment to both parties because ER workers are overburdened with few resources and patients suffer as a result.
* **Stakeholders Impacted**: ER workers in busy or underfunded courses, management in hospitals hoping for positive patient experiences, patients seeking care.
* **Professional Standard**: ACM Code of Ethics 1.1 “Contribute to society and human well-being, acknowledging that all people are stakeholders in computing”