oursense

an experimental wearable technology for nursing units to explore the dynamics between and implications of their individual & group stress

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from the quantified self to quantified selves
Hospitals are high-stress, collaborative environments where lives are at stake.
"Nursing is a critical factor in determining the quality of care in hospitals and the nature of patient outcome."

Institute of Medicine’s Committee on the Adequacy of Nurse Staffing in Hospitals and Nursing Homes: (Wunderlich, Sloan, & Davis, 1996, p. 92).
background

healthy hospital work environment

increases job satisfaction

reduces job turnover

improves patient outcomes
the focus

healthy hospital work environment

healthy social environment

healthy social stress

healthy individual stress
the focus

What’s the relationship between a nurses’ individual stress and her unit’s collective stress?

Let’s find out.
Using heart rate (BPM) as an indicator of stress, Oursense tells you your average heart rate with another person(s).
the concept

1. observe your pulse
2. observe our average pulse,
3. receive feedback based on the difference
4. receive a prompt for action
1. My sense

2. Our sense

Your boss puts lots of files in front of your desk.

3. Feedback Trigger

4. Action

Take a 5 min of deep breath exercise.
what’s on the market

current heart rate monitors meet individual needs
many are designed for athletes
many aren’t comfortable to wear daily
user (nurse) considerations

- washes hands frequently
- wears uniform / scrubs
- discretion / anonymous
- work in small groups in one location
- interact with patients often
- important to maintain focus on job
- in the habit of collecting and inputting data
- interested in health knowledge
Represent three ranges of heart rates with three colored lights.
heart beats per minute are measured by pulsesensor
Colored LED lights indicate ranges of heart beats per minute:

- BPM < 80
- 80 < BPM < 120
- 120 < BPM
the scenario

1 = BPM < 80
2 = 80 < BPM < 120
3 = 115 < BPM

if 1 = blue
if 2 = yellow
if 3 = red

if 1.5 = green
if 2.5 = orange
if red = 3 = red

if 1 = blue
if 2 = yellow
if 3 = red
the scenario
Wear your petal on your wrist. Keep your heart rate private by wearing it on the underside of your wrist, or show it to your colleagues on the top.

View your average heart rate with others. Stand in front of your unit’s flower pot. The flowers will turn a color that represents your average heart rate.
future applications

Explore the dynamics of individual and group stress in a variety of settings, discover insight into what contributes and doesn’t contribute to a healthy workplace environment. Develop mindful responses to others’ stress.

education: teachers + students
healthcare: doctors + nurses + patients
theater + dance
let’s sense.