**S.E.N.S.E.: Surveying Experiences Necessary for Stress Evaluation**

**Introduction**
We created two Android applications to analyze the Microsoft Band 2’s potential to detect stress in new mothers.

The applications use the Experience Sampling Method and retrospective diary to ask questions about the participant’s stress levels while collecting output from the Microsoft Band 2.

**Methods**

- **ESM Application**
  - We first focused on the ESM application that is accessed from a tile on the Microsoft Band 2 to select from a 6 point Likert Scale.

- **Alarm Algorithm and Survey**
  - Users receive a notification six times a day on the Band 2 to complete a survey on the android phone.
  - The notification utilizes an alarm algorithm that selects a time to send a notification based on variations in the user’s heart rate.
  - The survey has six questions to detect a user’s stress level.

- **Database**
  - Survey data is sent to a MySQL database that researchers can use to analyze the correlation between the Band 2’s sensor output and the survey responses given by users.

**Future Work**
We will conduct an 8 week field study with 50 new mothers to determine if the Microsoft Band 2 can accurately detect stress.