

#### System Proposal







Remind user of their ongoing goal and motivation. Facilitating users' making real-time appraisals of stressors and threats, enabling positive coping responses



Connecting users with mental health services and social network. Create a Platform for communication

#### Competitive Analysis



Virtual Hope Box
Location: Falls Church, CA
Founded Date: 2016

Company name: Military Health system

Superbetter
Location: San Francisco, CA
Founded Date: 2011

Company name: Superbetter Lab



Moodpath

Location: Berlin, Germany

Founded Date: 2016

Company name: Aurora Health

## Virtual Hopebox



Remind user of their ongoing goal and motivation.



Simple, intuitive interface



Provide both in-app therapy and support contact from physician

## Superbetter



helping people to adopt a new habit through gamification challenges



Activities linked to explicit reported mood problems



Connecting users by social network and community

## Moodpath



screens user well-being by asking questions on a daily basis

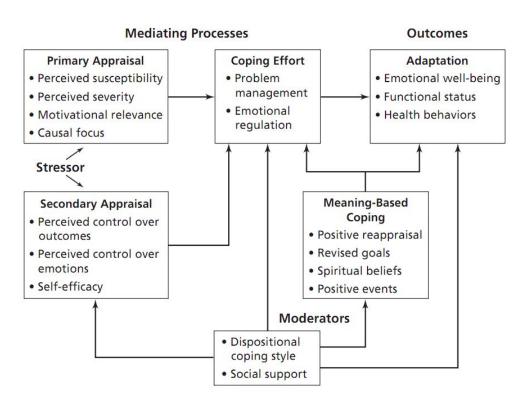


Provide assessment of mental health result



A broad range of psychoeducative modules that explain cause of depression

#### Theory Employed



Transactional Model of Stress and Coping (Lazarus & Folkman, 1984)

# Theory Table

CONSTRUCT	TRANSACTIONAL MODEL COMPONENT	RATIONALE	APP FEATURE
Positive reappraisal	Meaning-Based Coping (positive reappraisal)	MHapp will help user activate their own value system to reappraise stressors	Customizable avatar
Problem management	Coping Effort (problem management)	MHapp will help user proactively manage problems as they emerge	Calendar sync
Self management	Coping Effort (emotional regulation)	MHapp will help user manage moods	Mood tracking

# Theory Table

CONSTRUCT	TRANSACTIONAL MODEL COMPONENT	RATIONALE	APP FEATURE
Identify allies	Moderator (social support)	MHapp will enlist the user's existing support system	Contacts
High-level data visualization and analysis	Secondary Appraisal (Self-efficacy; perceived control over outcomes)	MHapp will provide synoptic data about user's pattern of usage over time	Insights
Crisis intervention	Coping Effort (problem management and emotional regulation)	MHapp avatar will direct user to real-life crisis intervention resources	Mental Health First Aid

#### Literature Review

- Bakker, D., Kazantzis, N., Rickwood, D., & Rickard, N. (2016)
  - Evidence of demand
    - 76% of survey respondents interested in using mobile phones for self-management/self-monitoring of mental health if service were free.
  - Promise of MHapps
    - Can make mental health more accessible and reduce barriers to treatment-seeking.
  - Challenges
    - Design principles that have led to the success of physical health apps have not been utilized in the MHapp field.
    - Evidence-based guidelines that have been developed for other mental health self-help interventions have not been applied to many MHapps.
  - 16 recommendations

#### Literature Review

- Avatars in MHapps
  - Rehm, I., Foenander, E., et. al. (2016)
    - Avatars can:
      - Facilitate the development of a virtual therapeutic alliance.
      - Reduce communications barriers.
      - Promote treatment-seeking through anonymity.
      - Promote expression and exploration of client identity.
      - Enable therapists to control and manipulate treatment stimuli.

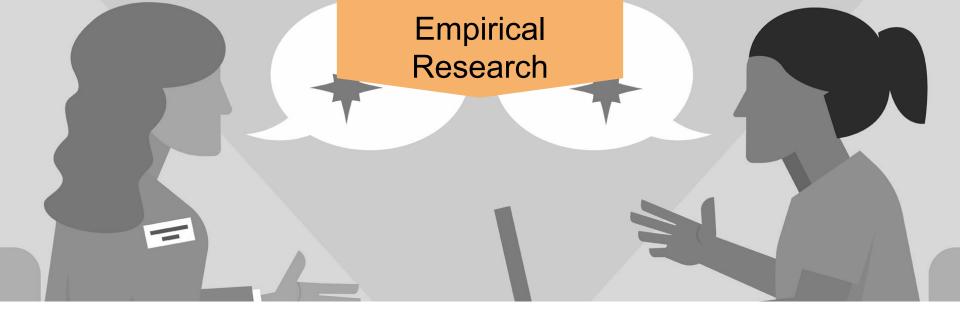












- Expert interview
- Survey
  - SIMS database: Musicians in Austin
  - Inferences derived from responses received

# **Empirical** Research

#### Technology-Enabled Therapy for Behavioral and Mental Health

- Access with greater ease
- Lower cost than face to-face conventional psychotherapy
- Virtual Assistant
- COD's (Co-occurring Disorders)
  - The Columbia-Suicide Severity Rating Scale (C-SSRS) is a questionnaire used for suicide assessment.
  - GAD-7 (Generalized Anxiety Disorder) is a 7-question screening tool that identifies whether a complete
    assessment for anxiety is indicated.
  - Patient Health Questionnaire (PHQ-9) is the most common screening tool to identify depression. It is available in Spanish, as well as in a modified version for adolescents
  - "Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide" is designed to help health care professionals quickly identify people at risk for alcohol-related problems.
  - **The Mood Disorder Questionnaire** (MDQ) includes 13 questions associated with bipolar disorder symptoms.
  - The Abbreviated PCL-C is a shortened version of the PTSD Checklist Civilian version (PCL-C). It was
    developed for use with in primary care or other similar general medical settings.

#### **Features**

- Login & User Profile
- Customize avatar
- 3 use cases for login: new SIMS member, Returning SIMS member, Brand new member
- Google calendar sync
- Spotify sync
- Contacts
- Journaling
- **Mood tracking:** evidence from psychological studies to validate the questions we ask for daily tracking
- Flag suicidal/ terminal cases, send notification to in- house SIMS counselor assigned
- **Insights:** An analysis based on responses. The app will run on a NLP based algorithm. Each response is related to a category. Cumulatively the responses lead to one possible answer.
- Resources

### Prototyping



 Adobe XD, medium- high fidelity prototype



User-testing:
 Let people engage with the app prototype and get feedback

#### Demo



MoodPal