



**BEYOND  
SILENCE**

# **Advancing an m-health approach to supporting front-line healthcare workers**

OHCOW Mayday –May 1, 2020

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*School of*  
**Rehabilitation**  
Science  
REACHING FURTHER



Public Services Health  
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Safe Environments.  
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# Dispatches from BC's Front Lines

I doff my protective equipment meticulously, terrified of contaminating myself. Still, I feel contaminated. I shower and change. I know I can't see my family now. I'm alone. I hear the 7 p.m. cheer once I'm home and I break down sobbing.

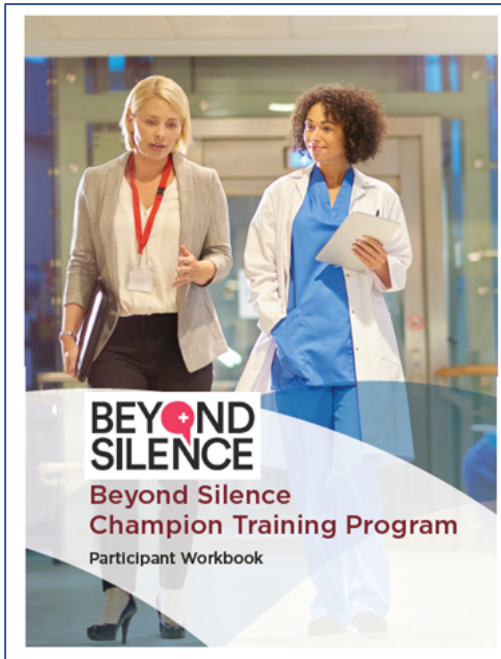
—Dr. McEachern, Mar14

Working another night shift this week, I notice a new phenomenon in the evolution of this pandemic: a form of COVID fatigue. ...It's hard to see a light at the end of the tunnel. —Dr. Kalla, Apr 23

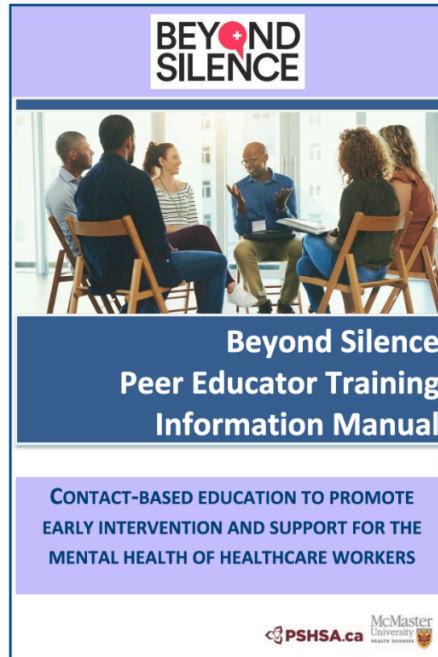
If you asked any paramedic right now what the theme of the pandemic has been, I think many would say 'moral dilemma'. ...The disparity between what we can do and what we must do is a leading cause of mental injury among us.... — J Hamilton, Apr 1

...the page rang out: CODE19. Someone sick was arriving imminently.... The team did what they could — CPR, intubating. In the end we 'called it'. ... We took a quiet moment for the patient, now passed. —Dr. McE., Apr 14

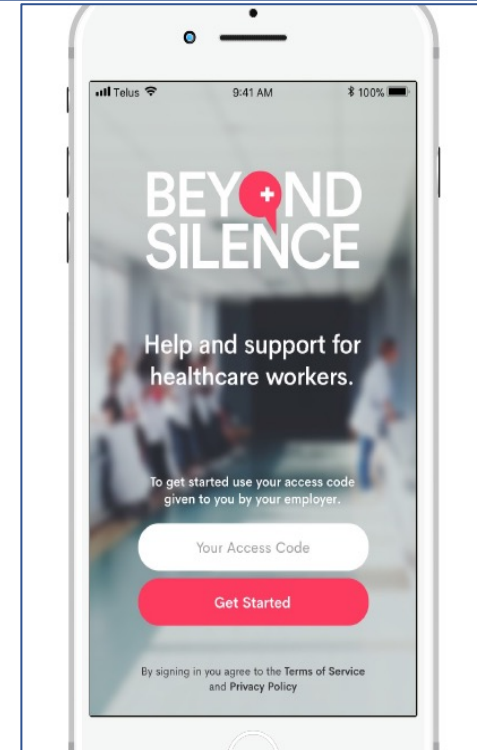
# Beyond Silence Research



2-day workplace training program



2-day "train the trainer" program

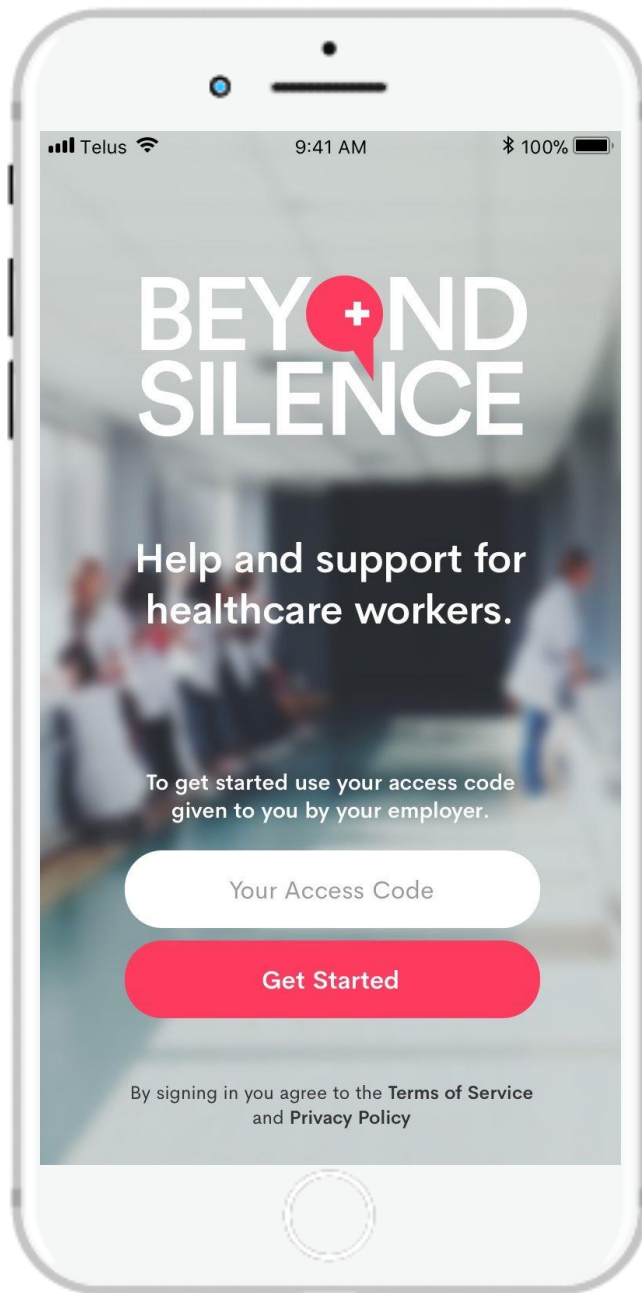


Mobile app

+ Online "community of practice" (webinars, discussion forum)

# Purpose of Project

- To develop, and pilot test a smartphone app that promotes mental health literacy and mobilizes healthcare workers to seek mental health support for themselves and their colleagues
- Focus: small under-resourced healthcare organizations in Ontario



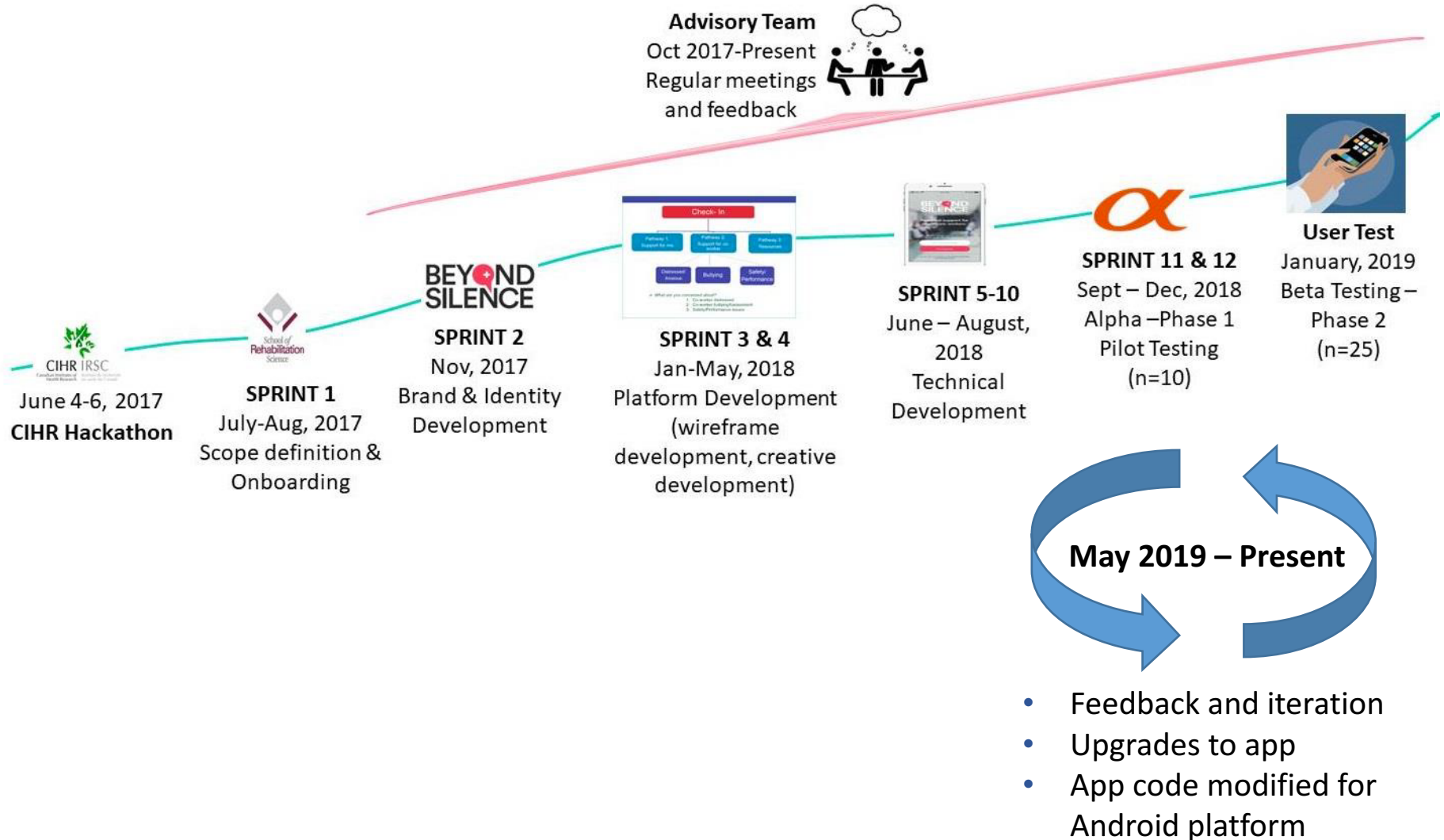
# Mobile App

**Goal:** To create an online, evidence-based, information & support tool customized for healthcare workers

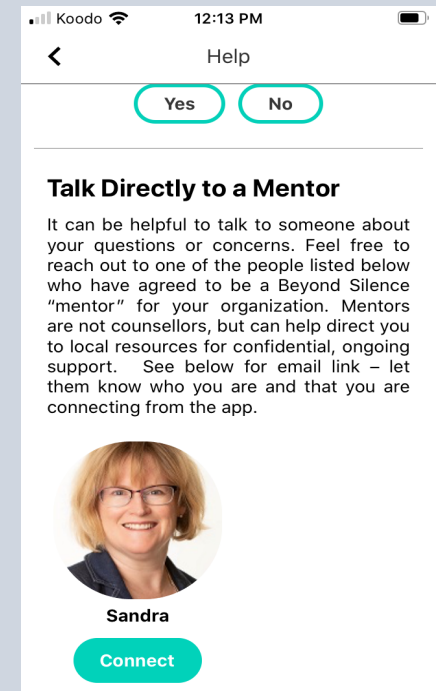
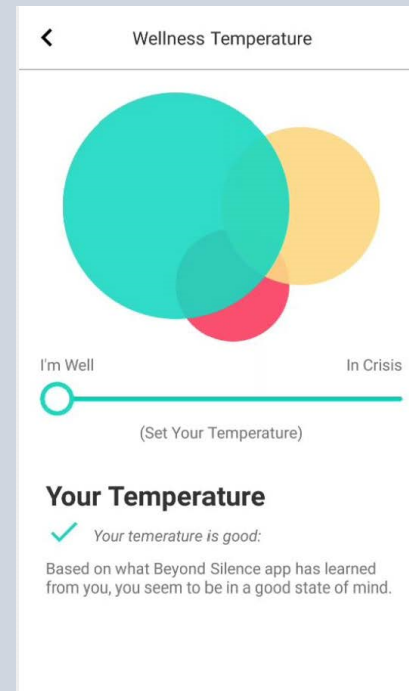
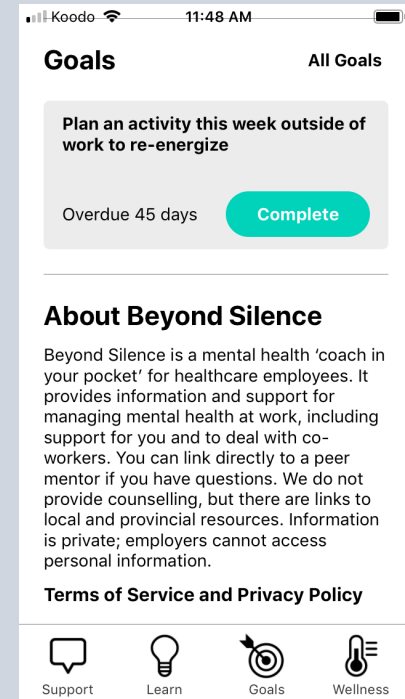
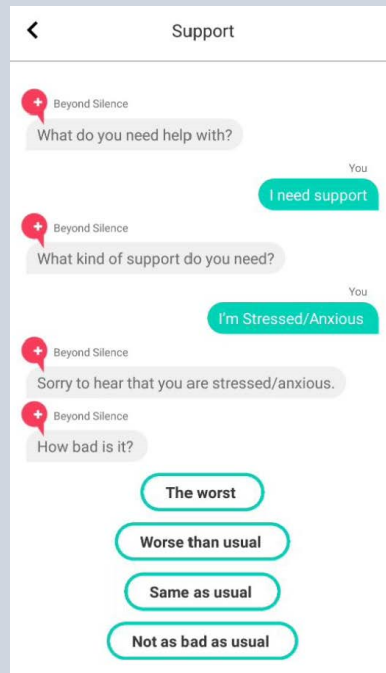
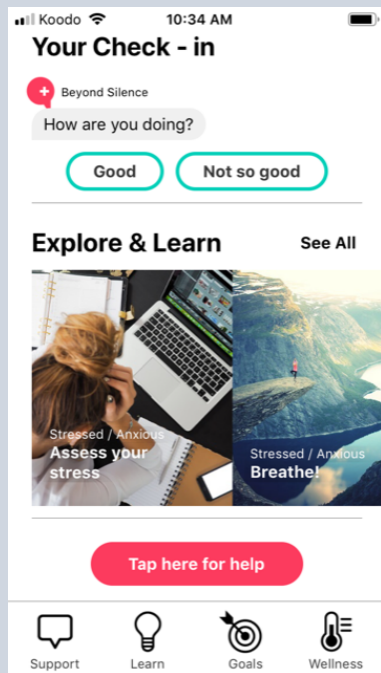
## Meeting the challenge:

- reduce stigma of seeking help
- increase access to high quality info & support, particularly in small, under-resourced areas
- provide 24/7 on-demand assistance

# App Development



# Overview of app



# App Features





# Beta Testing

- A purposive sample of 25 health care employees participated in testing of the iPhone prototype for 4 to 6 weeks (March 11<sup>th</sup> – May 13<sup>th</sup>, 2019)
- Pre/post surveys to track impact on mental health literacy (MHL-W) , stigmatized beliefs (OMS-HC) and help outreach behaviours
- Paired t-tests to determine statistical significance
- Perceived quality of the app was evaluated using an adapted version of the MARS app evaluation tool <sup>6</sup>
- Focus group discussion to explore issues in more depth (n=12 participants)



# Beta Testing

- 25 participants –tested the app for 4 weeks
  - Family health team, nursing home, hospital, private clinic, public health
  - 72% women
  - An average of 15.6 years in health care (SD 10.8)
  - Roles in health care organization: clinical service (32%), non-clinical support (32%), manager/supervisor (16%), other (20%)
  - 92% of participants worked full time hours
- 64% used regularly (daily or a few times a week)
- Usage patterns varied:
  - Just played with the features
  - Used it at the end of the day
  - Used it in the morning - before starting the day
  - Throughout the workday



# Beta Test Results

Table 1: Pre & Post Data Results for Study Outcomes

Outcome	Baseline Mean (SD)	Follow-up Mean (SD)
MH Literacy	49.84 (13.6)	61.2 (8.8)*
MH Beliefs (Stigma)	41.6 (8.3)	41.1 (8.7)
Mental Health	5.24 (1.0)	5.28 (1.1)
Outreach Confidence	4.64 (1.6)	4.64 (1.5)
Outcome	Baseline (%)	Follow-up (%)
Outreach Behaviour	48	60

\* Significant at  $p < 0.001$



# Beta Testing – Focus Group Findings

## Engagement:

- “I felt that if someone had it on their phone and they are feeling bad at the end of the day, they can go and feel more connected than they might otherwise”

## Aesthetics:

- “I liked the Wellness Gauge...you could move it over to see how you are doing...that was fun”

## Information:

- “One of the things that you did very well was how to support the worker and it starts with how to talk, what questions to ask or even how to approach the topic”
- “It would be nice to have resources that are specific to our rural area”

## Functionality:

- “It’s very user friendly within all levels of our employees, they all found it very easy to use”

## Impact:

- “You are not alone”
- “We are really focused on supporting patients and you can sometimes lose supporting your colleagues”

## Subjective Quality

- 3.8/5





# Organization Access

Each organization:

- Identify workplace champion
- Customization (links to internal policy documents, local resources, peer mentors)
- Support for implementation

App free to download

\*Code provided for all employees to access





## App as a COVID resource?

The most difficult issue we're hearing is the ***crippling uncertainty and stress***. More than 50% of the frontline healthcare workers in Wuhan are now clinically depressed due to lack of support, PPE, etc., and a sense of betrayal by those in authority.

My wish is that these folks have ***access to mental health supports now and on the other side of this***. One of the reasons we started this is because many healthcare workers do not have a culture that permits seeking therapy--and even when they do feel the need to seek help, they don't know how to find a therapist. Anything that destigmatizes psychotherapy would be a boon down the road--this could include data about mental health in frontline workers post-COVID in China & Italy but also post SARS

***If we are not getting people support now we will see another pandemic of depression, PTSD, and somatic issues among frontline workers.***

-Karen Dougherty - Ontario COVID-19 MH network



# App as a COVID resource?

“Check-in” Pathways to support:

## **I’m stressed/anxious**

Assess my stress/Breathe!/Recharge/Set Boundaries

## **I’m tired**

Compassion Fatigue/Sleep strategies/Surviving Shiftwork/  
Re-energize

## **I’m down/discouraged**

You are not alone/Suffering & loss/Re-think & re-frame/  
Get moving

## **I’m upset/angry**

Calm/ Triggers/ Re-think & re-frame/ Talk about it

## **I’m scared/feeling unsafe**

Difficult or dangerous clients/ Bullying or Harassment / PTSD/  
Reach out



## App as a COVID resource?

Resources:

- Guidelines for treating patients
- Guidance re: accessing/using PPE
- Links to policies, specialized education/support
- Links to peer mentors & professional supports
- Inspirational/thank-you messages

Scaling up – focus on priority organizations

Funding to facilitate free access





## Next Steps

- Interested in accessing app for your organization?
  - 3 month free license (May-August)
  - Open to all Ontario-based healthcare organizations
  - Priority: small, under-resourced organizations (eg. LTC)
  - Capacity needs to be determined
- If interested, need an “organizational champion” who will lead implementation process

Contact: [beysilen@mcmaster.ca](mailto:beysilen@mcmaster.ca)



## Next Steps

- Interested in developing content?
- Ideas for funding?
- Interested in accessing app for your organization?

Contact: [beysilen@mcmaster.ca](mailto:beysilen@mcmaster.ca)  
[molls@mcmaster.ca](mailto:molls@mcmaster.ca)



**Questions/  
Comments?**