Addressing social isolation, loneliness, and elevated suicidality among older adults during COVID-19 and beyond: A Partially Nested Randomized Control Trial of the BE WITH Innovation

Laura Shannonhouse, Matthew Fullen, Audrey Leroux, Sebastian Franck Love, Jordan Westcott

A "small dose of a sincere connection" may make a difference for persons at risk of suicide (Joiner, 2005). We also believe it can make a difference for older adults that are further upstream, and may not yet be at risk of suicide, but rather are struggling with isolation, loneliness, and depression. Addressing their social needs through a standardized and manualized warm calling program may improve mental health, not just during the pandemic, but for older adults across the spectrum of loneliness to suicide risk.

During COVID-19, warm calling programs emerged across the aging network (AN), however challenges occurred, such as protecting the confidentiality of older adults, ASN providers risk and fear in responding effectively to suicidality, and funding, training, and supervising the aging network service providers that provided effective warm calling services.

The BE WITH innovation grew out of the contextual needs of older adults during the COVID pandemic, and the AN's challenge in finding innovative solutions. BE WITH stands for **B**elongingness and **E**mpathy, **W**ith **I**ntentional **T**argeted **H**elping, which is a standardized and manualized warm calling program fostering sincere human connection at a time older adults may need it the most.

Treatment

The BE WITH program includes an 8-week warm calling treatment that is delivered to older adults (urban racially diverse, suburban, and/or rural) in 20-30 minute "dosages", over three conditions:

(a) BE condition which involves receiving services from providers trained to foster **b**elongingness and **e**mpathy (2 hours), grounded in the befriending literature (Wiles et al., 2019; Fakoya et al., 2021), and narrative reminiscence (Yousefi, 2015). Aging Network Providers trained in BE provide a "small dose of sincere connection", through **narrative reminiscence**, and the **"befriending"** strategies. The five core components to the BE training include:

1. **reciprocity**: the feeling that both parties are benefiting
2. **intimacy**: willingness to share deeply (superficial sharing at first helps build the relationship, but deeper sharing is what leads to positive outcomes)
3. **reliability** & **respect** (calling at the time you say you are going to call creates consistency and reliability, and that the older adult matters

4. **proximity**: feeling more connected to people within your community
5. **autonomy**: feeling both parties are willingly participating with each connection

While the majority of the warm calling of BE WITH centers on this basic connections intervention, there will also be individuals who need more than connection, but rather targeted intervention as approximately 20% of older adults receiving home and community based services are at risk of suicide (Fullen, Shannonhouse, Mize, Miskis, 2020).

(b) BE WITH condition includes the above BE training + the aging variant of LivingWorks ASIST (Applied Suicide Intervention Skills Training; Lang et al., 2013), which we have been adapting to use with older adults over the past four years (total 16 hours of training). Analogous to CPR (lay providers equipped to help someone that is drowning), anyone can learn "suicide first aid", or LivingWorks ASIST! Persons trained in ASIST connect directly with the older adult at risk through a six-step model called the *Pathway for Assisting Life (PAL).* The PAL model matches *six needs* of the older adult-at-risk with *six tasks* of the caregiver..

Persons-at-risk (and helpers) often perceive only two options: (a) to die by suicide, or (b) to live. Choosing to live or die can be a tough choice when an individual is struggling with suicidality. The ASIST training introduces a third option, which is to *stay safe for now*. Through engaging the PAL model those trained help the patient-at-risk identify ambivalence about dying, confusion, and even reasons for living. This is a little miracle that saves lives, as it removes the dichotomy of life/death, and ASIST training equips lay providers to do this. Caregivers are not taking away the choice to suicide, and the person's autonomy. Rather, ***through*** the intervention, caregivers return autonomy to persons-at-risk by helping them identify *their own reason(s) to live*, and link that to a safety plan that puts suicide on hold for the moment, which may turn into staying safe in the long term. The 6 steps of the PAL include:

1. Notice and explore invitations (i.e. voluntary stopping of eating and drinking, withholding medical treatment, withdraw, talking directly about suicide, etc.)
2. Asking directly about suicide
3. Not only listen, but sincerely hear the story about suicide
4. Work effectively with ambivalence about dying, which involves listening closely for confusion, ambivalence, hesitancy to die by suicide as the person is sharing their story, and offering a 3rd option (to stay safe for right now) which is an easier choice to make, and more aligned with the reality that there is some hopelessness that things will never change, and offering this 3rd option creates space for the opportunity for some things to change
5. Developing mutually and agreed upon safety plans
6. Confirming actions (or asking the older adult to repeat the safety plan back to us that we have developed together to assess their degree of commitment to it)

(c) control group (no treatment).

For each of the three conditions our research lab calls older adults and administers a batter of baselines measures: **suicide desire** (thwarted belongingness and perceived burdensomeness), **depression, fearlessness about death**, **loneliness**, and **social needs being met**. We then score those measures, rank order, assign a risk tier, and randomly assign to one of the three conditions. The older adults randomized into one of the two treatment conditions are then assigned to a calling partner (aging service network provider), that we have trained in either BE or BE WITH who begins administering the corresponding treatment. Every two weeks our graduate research students administer the baseline measures again for a total of five measurement occasions across the trial.

We worked with software developers of FriendlyBuzz who built a system to automatically record the audio files of the treatment dosages. We have more than 9 thousand recorded and transcribed audio files to date. Therefore, our analysis will involve longitudinal modeling over the 5 measurement occasions, as well as coding of a sub-set of audio files in examining the skills being used by aging network providers and volunteers in reducing risk and promoting life with older adults.

Research Questions

1. Over the course of the 8-week standardized and manualized warm calling program, how do mental health outcomes change over time for the BE and BE WITH treatment conditions relative to a no treatment group?
2. Are the changes in outcomes over time different for older adults who started at low, medium, or high risk (as defined by a baseline aggregate of measures)?

Hypotheses

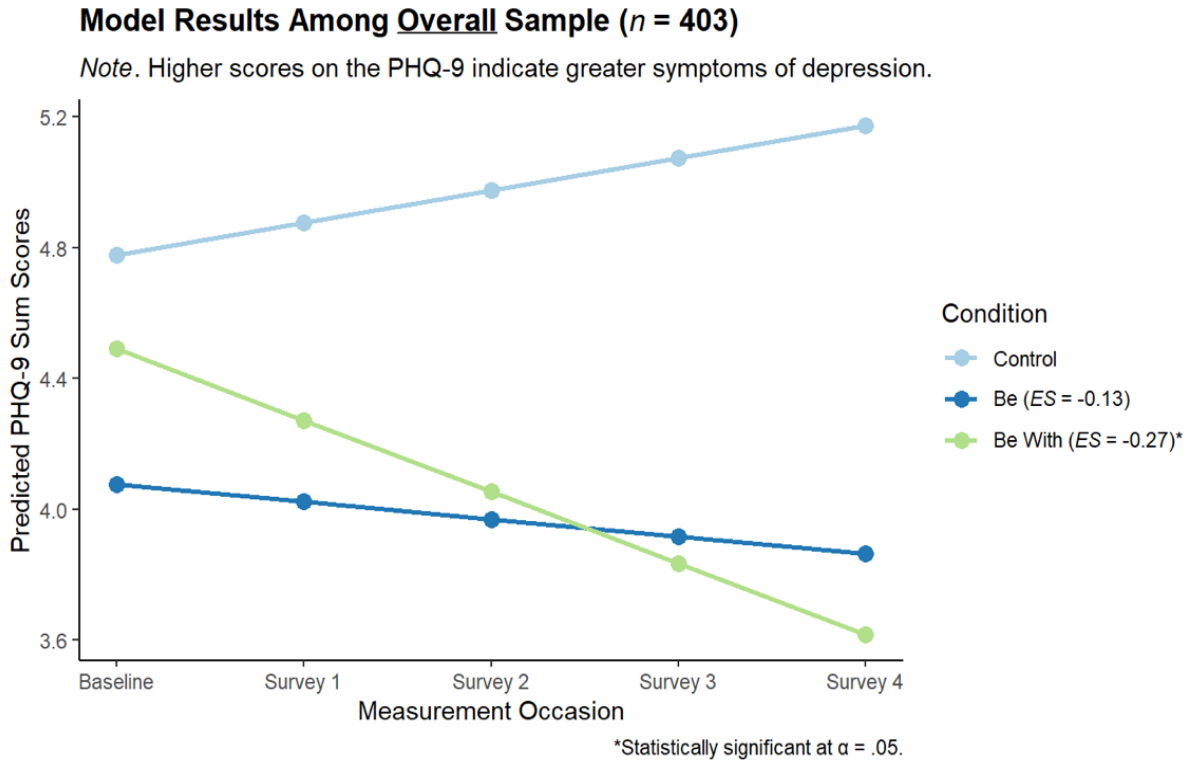
1. Participants in the BE and BE WITH treatment conditions will experience significantly more improvement across measures than those in the no treatment condition over the course of the 8-week program.
2. Outcome improvements for those in treatment conditions will be more pronounced for those who begin the period at greater risk (i.e., those who can improve more will do so).

Preliminary Clinical Trial Results

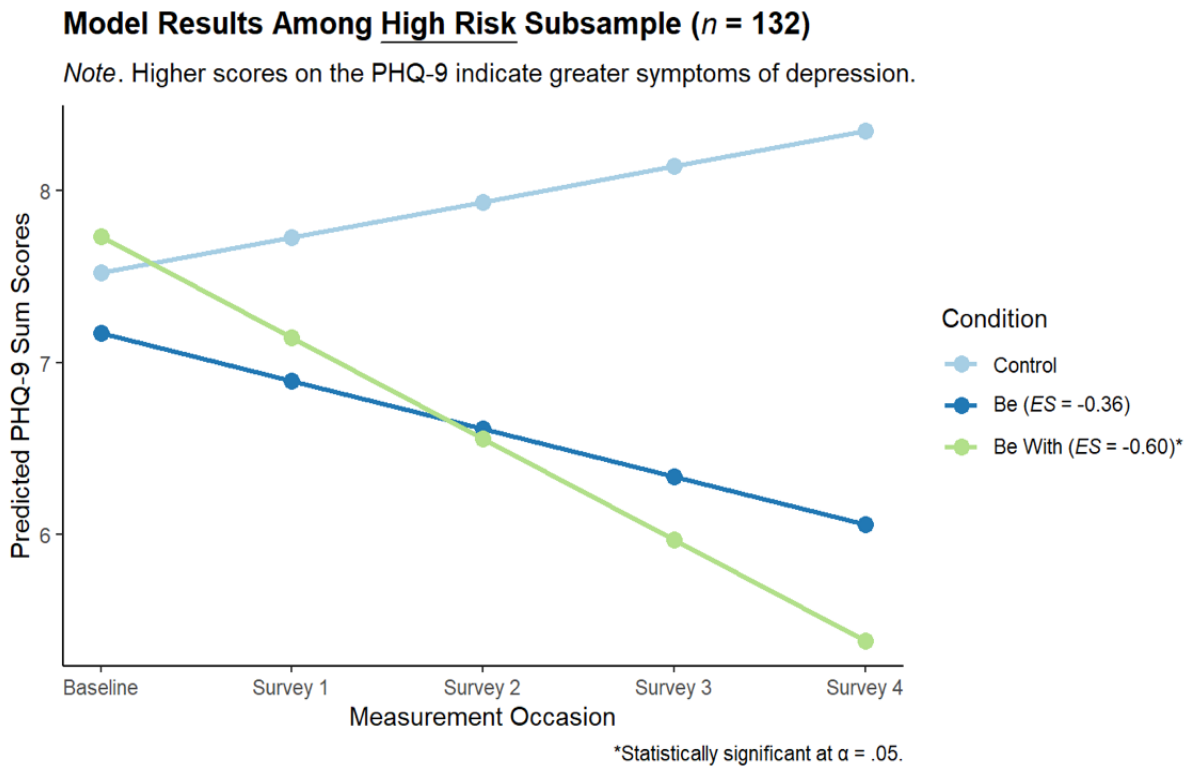
Our sample is on average about 74 years old, with variability in education. About a third reported less than 12 years of education, a third reported some high school, and a third reported some college. Most of the participants are lower income, meaning they receive between 500 and 1500 dollars a month. Most did not own a firearm , and the vast majority identified as Christian

Protestant. These preliminary results include mostly black female as these findings represent the first two waves of the study which was predominately in urban metro-Atlanta. The subsequent 2 waves of the study include many more rural participants, therefore these initial results are somewhat biased towards urban racially diverse older adults.

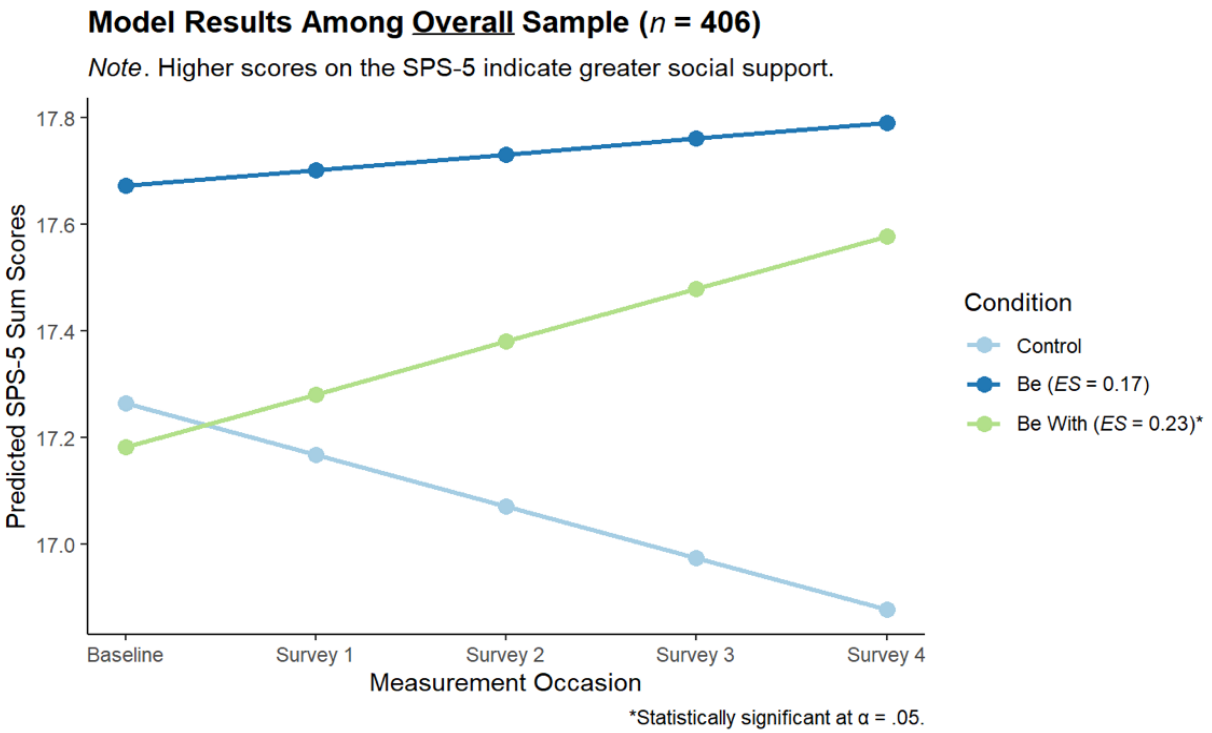
As far as the **overall sample,** we see **depression** is reduced in the BE WITH treatment condition when compared with the control condition. Over time older adults not receiving the treatment (control group) became more depressed. The effect sizes are on the right side in parentheses and statistical significance is indicated with a * . We see a small significant effect for the BE WITH group compared to the no treatment group when looking at depression in the overall sample.



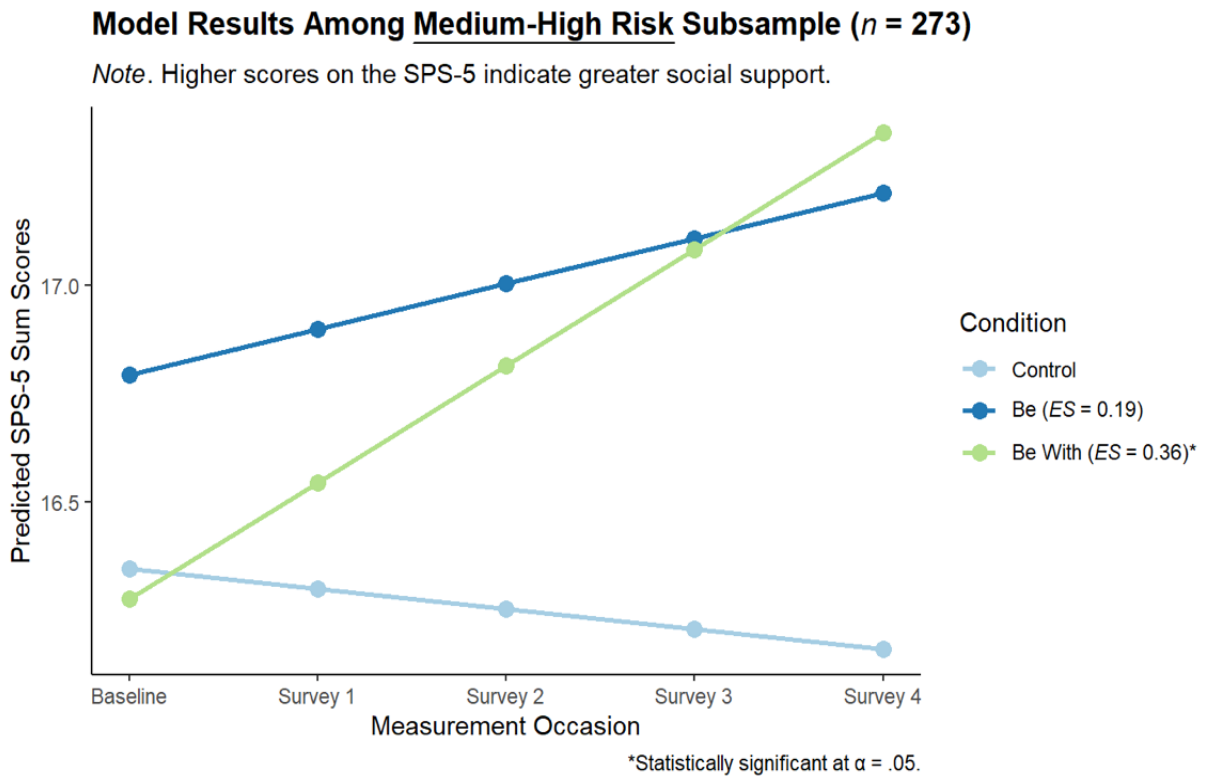
When we look more specifically at the older adults at **"high-risk" at baseline,** the **depression** results are reduced further in both treatment conditions. This is preliminary evidence that older adults at higher risk, receiving treatment from an ASIST trained caregiver, have significantly lower depression scores by the end of the 8-week intervention.



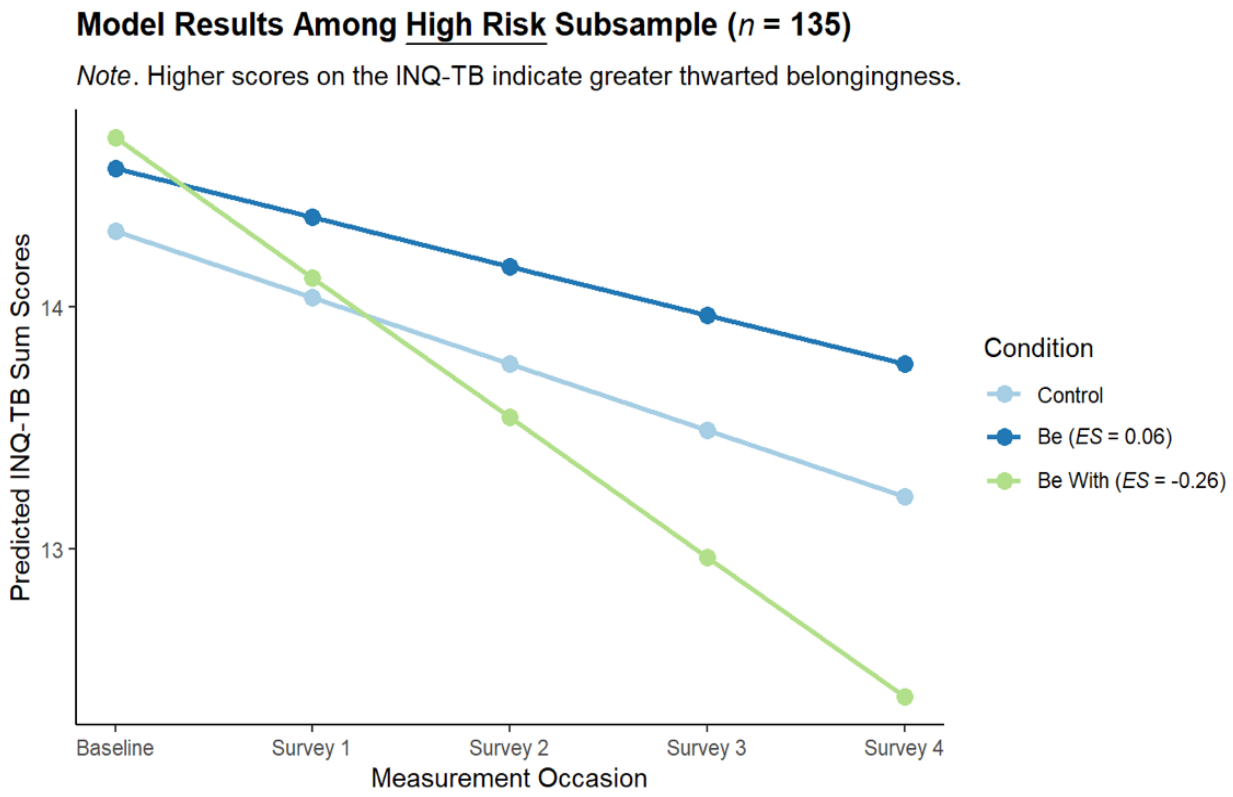
As far as older adults' **social needs being met,** we see their scores increasing over time for the BE WITH treatment group meaning there is preliminary evidence that social needs were increasingly being met for those receiving the ASIST trained warm calling treatment. The group with the ASIST training increased at a relatively high rate, whereas the control group (older adults not receiving treatment) decreased their social needs being met overtime. These preliminary findings are in the expected directions, though again preliminary, as we are underpowered for the analysis as these results only reflect the first half of the clinical trial. If you look at the BE WITH group (green, ASIST condition) vs. no treatment group (light blue, control condition) the slopes are in opposite directions over the five measurement occasions.



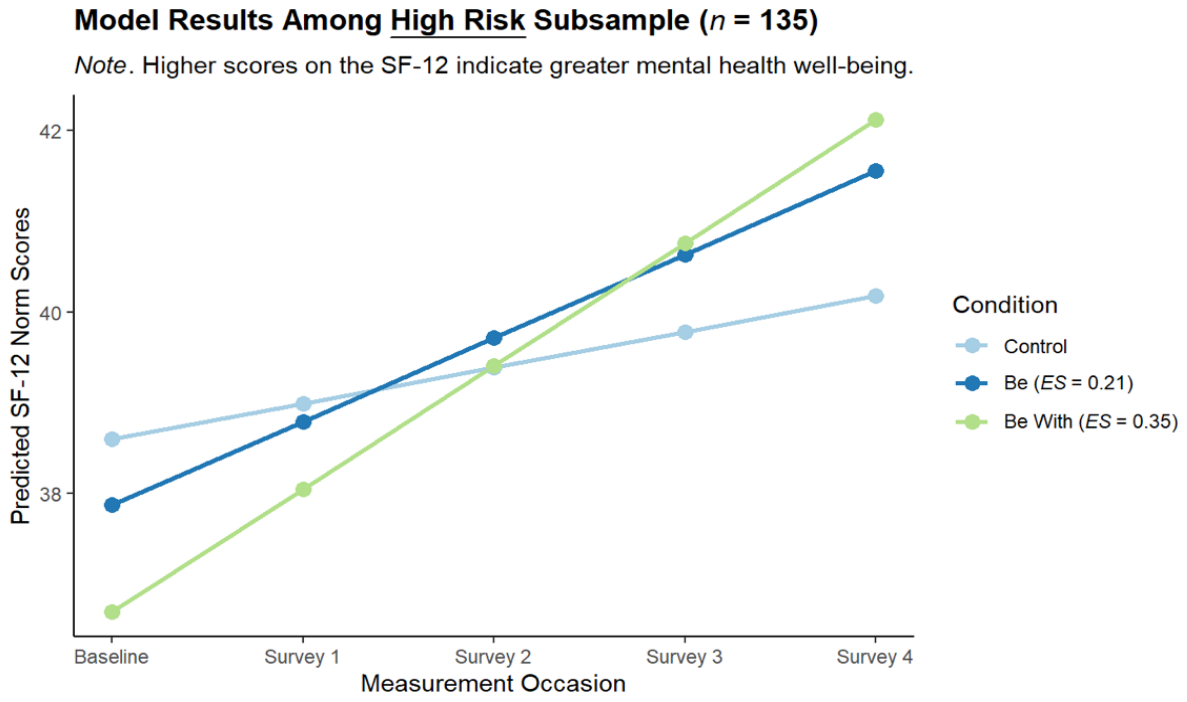
When we look at **social needs** for the older adults in the **medium to high risk tier** the results are stronger, and the BE WITH (older adults receiving warm calling from ASIST trained caregivers) effect size is more substantial. The older adults with more risk to start seem to get more out of the program, especially if they are in the group that included the ASIST training.



When we look at **Thwarted Belongingness** (one of two key predictors of suicide desire) we see trends going down in all 3 conditions, albeit at different rates. The effect is largest for the **high-risk group** in the **BE WITH condition** (ASIST) condition. Since our lab collects data verbally due to digital literacy limitations with the older adults, participated are asked questions about thwarted belongingness, perceived burdensomeness, and acquired capability every two weeks without getting the treatment, so we are hypothesizing that this is actually functioning as a "smaller dose" as all our graduate students, we imagine, may have listened to the older adults a little in between questions when collecting the data. While our graduate students have been instructed to avoid connecting as much as possible during data collection, it is possible that just being asked about their distress has a positive function on the mental health of the older adults.



Older adults who receive calls from ASN providers trained in BE and ASIST experience greater improvements in **quality of life** than the control group. This is similar trend for the BE group, as we see that improvement as well, but not to the same degree as the BE WITH group. The older adults receiving dosages from the group who also had the training in ASIST manifested more improvements and the effect size was relatively higher when compared to the control group.



Limitations and Adjustments

While these findings are very encouraging and provide preliminary support that ASN providers trained in BE and BE WITH have a positive outcome on older adults' mental health, these findings must be interpreted in the context of the limitations. We did see a slight improvement in the no treatment (i.e., control) group on thwarted belongingness, meaning the control group may potentially receive a "mini" dose from our lab. We also noticed a "ceiling effect" as a third of the sample had "no" to "very low" risk at baseline. Therefore, we revised our approach in the 4th and final wave of the study to enroll *only* medium and high risk to address the ceiling effect. Finally, we noticed differential attrition, meaning that those in the treatment conditions were dropping out of the study at a higher rate than those assigned to no treatment, and this dropout occurred especially between baseline and enrolling in the program. Therefore, we moved from launching a full treatment wave at the same time, to a rolling recruitment and individual launching of providers trained, in an effort to reduce the time between recruitment/baseline and start of the treatment. We learned of these challenges during the half-way point of the trial. In addition, we are over-recruiting for wave 4 through a "weighted" stratified random assignment (Efron, 1971) to enable us to address differential attrition prospectively.

Research Take Aways & Implications for the ASN

These findings provide preliminary evidence that older adults receiving warm calling treatment from aging network providers experience improved mental health. ASN providers can be trained to provide a "small dose of sincere connection" that reduces depression, loneliness, and thwarted belongingness (one of two key factors of suicide desire), and increases social needs that are being met. We saw positive mental health gains across the eight-week intervention for both treatment conditions. Further, this preliminary evidence demonstrates that these positive effects are increased for older adults receiving dosages from those trained in LivingWorks ASIST, and manifested significantly higher positive psychological outcomes when compared to those not receiving treatment (i.e. control group). This has implications for training and future research.

Implications for Training and practice. Not all older adults receiving home and community-based services are at risk of suicide, however the majority have some loneliness, depression, and social needs risk. This stratification across risk reveals a need to (a) effectively assess, and (b) tailor treatment to need. The BE training may be enough to interrupt isolation and intervene upstream. These findings provide initial support that the BE training may be meaningful and appropriate with the majority of older adults, however we are currently under powered and while it is trending in that direction, and we expect significance by the end of the trial, at this time findings are promising. Since it is only 2 hours in duration, and it can be provided through online, zoom training platforms, it may also be easily accessible and trainable. ASN providers trained in BE may be able to prevent the conditions that contribute to suicide desire from coming into the older adults life.

For those who are at risk of suicide, the Aging Variant of LivingWorks ASIST may be a tangible means for equipping ASN providers with life promoting skills to provide a life assisting intervention when one is needed the most. While the preliminary results reveal that older adults receiving call dosages from providers trained in LivingWorks ASIST experience more improvement in mental health, there are very real needs to identify the older adults at highest risk so that treatment can be tailored accordingly.

Currently, the Aging Network does not assess for suicide desire or capability. It may prove useful to develop a condensed behavioral screener that could easily be implemented as opposed to providing 3 full measures (INQ which measures suicide desire, FAD which measures suicide capability, and suicide ideation/cognitions/behavioral questionnaires to assess current states). According to Yeates-Conwell, five variables, referred to as the "Five Ds," are reliable indicators of older adult suicide risk: depression, disconnectedness, disease (mental illness), disability, and deadly means. It tends to be that these states are measured through different instruments, however behavioral screening may enable a very simple screener to identify those most at risk. The ASN is not only challenged to (a) identify those most at risk, but also then (b) match those most at risk with providers who can address their needs.

Implications for future research. Our team is hard at work running the last wave in this clinical trial. While these preliminary findings are likely to be consistent across the full trial, a needed first step is conducting the longitudinal modeling with the total scores for each outcome to determine if that is the case. Next, we have more than 9,000 audio recordings of treatment dosages across waves. It takes significant time, training, and investment to code an audio file, therefore within this grant an intentional subset of these audio files will be collected for double coding, and further analysis. The audio files are one of the richest forms of data as we can very closely examine the interactions between the persons trained and the older adult mental health outcomes.

We will stratify a subset of these 9,000 audio files from the highest risk baseline depression and suicide desire scores along with demographics for coding. Future grant funding will be needed to explore and study the audio files of medium and lower risk individuals, as well as the simulated calls with suicide interventions happening at two time points over the 8-week intervention. In sum, we have only scratched the surface of the very rich and intentional data we have collected.

These audio files provide the opportunity for the development of a behavioral measure of suicide risk. While most trait measures involve lots of questions and include a good bit of measurement error, a behavioral measure can be derived from this dataset. We can use the total scores for each outcome at baseline to determine those at highest risk, evaluate the audio files of those in particular, and determine how their behaviors correlate with these outcomes. Such a behavioral screener may be a critical need in the Aging Services Network and enable very intentional screening of older adults who may indeed need to be matched with providers that are equipped to complete life assisting interventions.

Finally, community-based research is hard and takes time, however, it has the impact to shift and change policy and practices. The Administration for Community Living (ACL) has funded one of the most rigorous and intentional suicide intervention clinical trials that has been attempted. This research has caught global attention as many countries struggle with preventing suicide and promoting life with older adults. While we have just been able to scratch the surface of the data we have collected, this trial has resulted in exceptional learning. Needed next steps include additional analysis on the data we have collected, development of a behavioral screener, and moving in the direction of determining how to “identify” older adults most at risk, and “match” them with trained ASN providers who can promote life.

After matching strategies have been tested and proven useful, implementation research can be started. This clinical trial is a needed first step in garnering the evidence to get the BE training and the aging variant of LivingWorks ASIST on the NCOA evidence-based registry. While programming may be made available, more research is needed in order for that programming to be implemented successfully and with succession planning.

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