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**Title: A Volunteer-Run, Face-to-Face, Early Intervention Service for Reducing Suicidality: A service evaluation of The Listening Place**

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**Conflicts of Interest:**

All the named authors have a role in the organisation (The Listening Place) which is the subject of the service evaluation in the registered report:

SES, HD, CL, SS are all current volunteers at The Listening Place

SA is the CEO of The Listening Place

SD is a trustee of The Listening Place

SP is an advisor to The Listening Place

**Keywords:**

Suicide; mental health; non-clinical intervention; befriending; volunteering; charity

## Abstract

### Background

Befriending is one of many strategies with the potential to reduce suicidal ideation and decrease the risk of suicide.

### Aims

To measure change in suicidal ideation and behaviour among visitors (service users) supported at The Listening Place (TLP), a charity which offers volunteer-run, face-to-face befriending to people who are suicidal.

### Method

This study was peer reviewed and pre-registered on the Open Science Framework prior to data extraction. Anonymised data were extracted for visitors at the point of referral and after three months of receiving support. Paired-sample tests were used to test whether self-reported suicidal ideation and behaviours changed after three months of support from TLP. Multivariable regressions were used to test whether change in suicidal feelings was associated with demographic characteristics or baseline self-reported suicidality.

### Results

TLP received N=13,938 referrals from July 2016 to February 2022. Self-reported suicidal ideation, suicidal behaviour, and feelings of distress decreased after three months, while feelings of support increased. Only self-reported suicidal behaviour prior to referral was associated with a lesser reduction in self-reported suicidality after three months.

### Conclusions

An empathetic, non-judgmental, listening service for people who are feeling suicidal was well received by users, who experienced a reduction in suicidality.

## **A Volunteer-Run, Face-to-Face, Early Intervention Service for Reducing Suicidality: A service evaluation of The Listening Place**

Worldwide, more than 700,000 people die from suicide every year (World Health Organisation, 2021). In the UK, 6507 people died from suicide in 2018 (Office for National Statistics, 2019), which is approximately equivalent to 17 deaths per day and an 11.8% increase compared to 2017 when 5821 deaths occurred. The Office for National Statistics (ONS) defines suicide as death from intentional self-harm, for anyone aged 10 or older, and death caused by injury or poisonings, where intent was undetermined, for people aged 15 or older. However, these statistics do not capture people who attempted suicide or experienced suicidal thoughts. It has been estimated that a fifth (20.6%) of adults will think about suicide during their lifetime, with one in twenty (5.4%) reporting suicidal thoughts in the last year, and one in fifteen (6.7%) attempting to take their own life (UK 2014 Adult Psychiatric Morbidity Survey; McManus et al., 2016).

The suicide prevention strategies of the UK national governments (England, Northern Ireland, Scotland, Wales) take the position that deaths by suicide are largely preventable and that no one should have to experience suicidal thoughts (for England, see Department of Health, 2017). There is no single risk factor that predicts suicidal behaviour (Turecki et al., 2019). Rather, there are many such risk factors, including previous suicidal ideation or behaviour, mental health disorders, and certain psychological traits. Therefore, strategies seek to alleviate or mitigate the adverse effects of multiple psychological, psychiatric, social, and environmental factors, while enhancing protective factors. Evidence-based interventions for suicide prevention include restricting means and encouraging help-seeking (Pirkis et al., 2015), cognitive-behavioural therapies (Tarrier et al., 2008), and psychotherapies (Calati & Courtet, 2016). While there is also some evidence that crisis helplines can contribute to the reduction of suicidal thoughts and behaviour, it should be noted that many of the studies examining the effectiveness of crisis lines have serious methodological limitations (Hoffberg et al., 2020). For a recent overview of the strength of the evidence base for suicide prevention, see Platt & Niederkrotenthaler (2020). Despite the existence of suicide prevention programmes in the UK, more effective action is needed to reduce the incidence of suicidal behaviour and the prevalence of suicidal ideation.

Befriending services offer emotional support, informational guidance, and/or practical assistance. First developed in the voluntary sector as a psychosocial intervention for depression, anxiety, and loneliness, befriending schemes, also termed professional social support, have been shown to be effective in reducing distress and symptoms in people with schizophrenia (Turkington et al., 2018). Professional social support involves active listening, showing interest, being communicative, expressing sympathy and empathy, being trustworthy, and encouraging sharing of feelings.

The Listening Place (TLP; <https://listeningplace.org.uk/>; Charity No. 1164739) uses a selective suicide prevention strategy inasmuch as it provides support for at-risk individuals who have already exhibited some form of suicidal behaviour or ideation (Turecki et al., 2019). TLP offers free support to anyone over the age of 18 who “no longer feels that life is worth living”. This support takes the form of empathetic, non-judgemental listening from trained volunteers, who do not offer advice. Appointments are usually fortnightly, face-to-

face, and – crucially – with the same volunteer. These appointments take place at the TLP premises or at satellite sites (e.g., within primary mental health hubs) in London. People can self-refer to TLP, but most referrals come from the NHS or other charities. TLP has a strict confidentiality policy, which enhances safeguarding by overcoming the barriers that traditionally prevent suicidal people from sharing their thoughts and plans (e.g., perceived fear of children being taken into care). Confidentiality is broken only with visitors' permission or when required by law.

We report the results of a service evaluation of TLP. We aim to (1) describe the use of TLP, (2) compare the severity of suicidal ideation and behaviour before and after engagement with TLP, and (3) explore whether particular demographics or baseline suicide-related variables are associated with a change in self-reported suicidal feelings after three months of support from TLP. In relation to the second of these three aims, we hypothesise that the severity of suicidal ideation will decrease after three months of using TLP, and in relation to the third aim, we hypothesise that there will be no significant associations with age, gender, ethnicity, or baseline suicidality. Our service evaluation seeks to meet one of the recommendations in the NICE Guidelines on 'Preventing suicide in community and custodial settings', which were published in 2018 (<https://www.nice.org.uk/guidance/ng105>): "Non-clinical interventions, such as telephone or text helplines or volunteer-run face-to-face talking are important to support people with suicidal thoughts and keep them safe. There is increasing demand for non-clinical interventions but little evidence on the benefits. Research is needed to evaluate how effective they are" (p. 24).

## Methods

### The Listening Place Journey

TLP service users are referred to as visitors. After referral, a staff member from TLP contacts the visitor to provide information about the service and to offer them an initial appointment with a supervising volunteer. At this 50-minute appointment a brief history is taken, and the visitor is encouraged to share the suicidal thoughts they have been having and any history of suicide attempts. They also complete some questionnaires (see below). If the visitor and volunteer agree that appointments may be beneficial, the visitor is given a series of six, fortnightly appointments with a listening volunteer. After approximately three months, the visitor has a review appointment to discuss how the visitor now feels and again complete the questionnaires. Visitors can stop appointments with TLP at any time, but it is usual to stop at one of the review appointments that take place every three months.

### Data Extraction

We extracted anonymised data for all visitors referred to TLP from when the charity opened in July 2016 to one month after registered report acceptance (1<sup>st</sup> March 2022). For every visitor we extracted the year of referral, age at referral, gender, self-reported ethnicity, number of listening appointments, and number of review appointments. We also extracted data collected from the three questionnaires administered as part of the routine TLP service: the self-report version of the Columbia Suicide Severity Rating Scale (C-SSRS), three

Likert-scale 'feeling thermometers', and a visitor experience questionnaire. The C-SSRS and feeling thermometers were extracted at two time points: the initial appointment, and the first review appointment (approximately three months later). The visitor experience questionnaire was extracted at the three-month review appointment.

## Demographics

Age at referral was calculated using date of birth and date of referral. Given the high rates of suicidal ideation (37-83%) and suicidal attempts (9.8%-44%) in people identifying as transgender (McNeil et al., 2017), gender was recorded in five categories: cisgender female, transgender female, cisgender male, transgender male, other. Ethnicity was recorded according to the 18 categories used by the ONS as well as an additional category: prefer not to say. In this report we use the ONS five category breakdown: White (White British, White Other); Black (Black African, Caribbean or Black British); Mixed or Multiple ethnic groups; Asian (Chinese, Indian, Bangladeshi, Pakistani, Other Asian); Other ethnic group (Arab, Other ethnic group); and prefer not to say.

## Columbia Suicide Severity Rating Scale (C-SSRS)

As the C-SSRS does not need to be administered by someone with clinical training, it is ideal for use in a volunteer-led organisation. The C-SSRS has high specificity and sensitivity, is sensitive to changes in ideation/behaviour over time (Posner et al., 2011), and has good inter-rater reliability (Mundt et al., 2010), but may not be able to predict future suicide attempts in people without a history of suicide attempts (Brown et al., 2020). The self-report version of the C-SSRS requires visitors to answer 'yes' or 'no' to six questions about the severity of their suicidal thoughts. All visitors answer four questions: 1, "Have you wished you were dead or wished you could go to sleep and not wake up?"; 2, "Have you actually had any thoughts about killing yourself?"; 6, "Have you done anything, started to do anything, or prepared to do anything to end your life?" and 7, "In your entire lifetime, how many times have you done any of these things?", which has four options: '0', '1-5', '6+', and 'unknown'. Only those who respond 'yes' to question 2 then answer questions 3-5: 3, "Have you thought how you might do this?"; 4, "Have you had any intention of acting on these thoughts of killing yourself, as opposed to you have the thoughts but you definitely would not act on them?"; and 5, "Have you started to work out or worked out the details of how to kill yourself? Do you intend to carry out this plan?". Questions 1-5 were combined into a suicidal ideation score (range 0-5).

At the initial appointment, the visitor needs to consider the period specified in the question when describing the severity of their suicidal thoughts (the past month for questions 1-5 and the past three months for question 6). At the review appointment, the visitor is asked to consider the period since they last completed the questionnaire (approximately 3 months).

## 'Feeling thermometer' Scales

The 'feeling thermometer' scale measures self-reported feelings of distress, suicide, and support, each on a 0 to 10 Likert scale (e.g., 10 on the Likert scale corresponds to 'extremely

distressed' or 'extremely suicidal' or 'extremely well supported', whereas 0 corresponds to 'not at all distressed', 'not at all suicidal', and 'not at all supported'). When answering, the visitor is asked to consider how they have felt in the preceding month.

### Visitor Experience Questionnaire

The visitor experience questionnaire is divided into three sections. In the first section visitors are asked to indicate their views about TLP by rating how much they agree with 10 statements, each on a 5-point Likert scale (i.e., 'strongly agree', 'agree', 'neither agree nor disagree', 'disagree', or 'strongly disagree'). The 10 statements are in ESM Table 2.

The second section asks the visitor: "Overall, how would you describe your experience at The Listening Place?". The visitor is asked to tick one option on a 5-point Likert scale ('very good', 'fairly good', 'neither good nor poor', 'fairly poor', 'very poor').

The final section of the questionnaire asks the visitor: "In the box below, please add comments about any aspects of your experience at The Listening Place". Data collected in response to this question has not been extracted as part of this evaluation.

### Data Analysis

#### *The Listening Place population*

To address aim (1), we describe the flow of visitors through TLP. For all referrals, we report age, gender, and ethnicity. We then report the proportion of visitors who attended an initial appointment and compare this group to those who did not attend an initial appointment in respect of age, gender, and ethnicity. Next, we report the proportion who attended an initial appointment, at least six listening appointments, and a review appointment (a 'supported' subgroup) and compare them to those who attend an initial appointment but do not attend six listening appointments and a review appointment, with respect to age, gender, ethnicity, and the questionnaire data collected at the initial appointment (i.e. the C-SSRS and the feelings thermometers).

#### *Subjective experience of TLP*

For the 'supported' subgroup, we described visitors' experience of TLP. We report the responses to the first two sections of the visitor experience questionnaire collected at the three-month review appointment. If items in the first section had an internal consistency (Cronbach's alpha) greater than 0.8, we established a single composite measure and reported the individual items in the supplementary material. For each visitor we summed their item scores and then convert the sum into a z score using the following formula: 
$$\frac{(\text{individual summed score} - \text{sample summed score mean})}{\text{sample summed score standard deviation}}$$
. This measure accounts for missing data on one or more item at an individual level. We also report these data for the wider sample of visitors who attend an initial appointment.

### *Change in suicidality*

To address aim (2), we compared the C-SSRS and feelings thermometers data collected at the initial appointment with the data collected at the three-month review appointment. We restricted this analysis to the 'supported' subgroup. McNemar's chi-square test for paired samples were used to analyse responses to the C-SSRS, and paired sample t-tests were used to analyse the feelings thermometers. We repeated this analysis without restricting the sample to the 'supported' subgroup.

### *Factors associated with change in suicidality*

To address aim (3), we tested which demographic factors were related to self-reported suicidality (i.e., the suicidality 'feeling thermometer') at the three-month review. We restricted this analysis to the 'supported' subgroup. Age, gender, ethnicity, the C-SSRS (suicidal ideation score and two suicide behaviour questions) at the initial assessments, and the feelings thermometers at initial appointment were entered into a multivariable linear regression; the initial suicidality 'feeling thermometer' was included as a covariate to adjust for individual differences in outcome. We report the results of a univariable model for each variable and the multivariable model, including the mean-squared error and  $R^2$  for the latter. We tested the assumptions of the multivariable linear regression and transformed our data and/or adapted our interpretation accordingly. We repeated this analysis without restricting the sample to the 'supported' subgroup.

### *Missing data*

For the main analyses, we used complete cases only and report the sample size used in each test. We report the proportion of missing data for the sample of all referrals, and the 'supported' subgroup, in the supplementary material, separately for each variable. We also report the results of analyses which seek to identify whether those with non-missing data are representative of all visitors. Chi-square tests were used for categorical data and independent sample t-tests for continuous data.

### *Statistical assumptions*

To assess change in suicidality, the alpha level was set at 0.003 (0.05/16; age, gender with four dummy variables, ethnicity with five dummy variables, two suicide behaviour questions, the suicidal ideation score, and three feelings thermometers) after Bonferroni correction. For all other analyses the alpha level was set at 0.05. For chi-square tests with any cell frequency that is <5, Fisher's exact statistic was used instead. All analyses were performed in RStudio version 1.4.1103 using R version 4.0.3 (2020-10-10).

### *Power analysis*

Aim 1: If the sample size of the group with an initial appointment and a review appointment is 2814 and the sample size of the group with only an initial appointment is 4674, then,



when the alpha level is 0.05, a two-sample t-test would have 98.72% power to detect a small effect size of 0.1 (100% power for a medium effect size of 0.3 or larger). A chi-square test of independence, when the alpha level is 0.05, would have 100% power to detect an effect size of 0.1 or larger.

Aim 2: With a sample size of 2814 visitors, when the alpha level is 0.003, a two-tailed McNemar's chi-square test for matched pairs would have 99.9% power to detect an odds ratio of 1.5 if 50% of the pairs were discordant (91.53% power if 25% of the pairs were discordant, and 100% if 75% of the pairs were discordant). A two-tailed paired sample t-test for matched pairs, when the alpha level is 0.003, would have 99.47% power to detect a small effect size of 0.1 (100% power to detect an effect size of 0.3 or larger).

Aim 3: With a sample size of 2814 visitors, when the alpha level is 0.05, a multivariate linear regression to test nine predictors would have 100% power to detect an effect size of 0.1 or larger.

These power analyses were performed with G\*Power (Faul et al., 2009; Faul et al., 2007) using sample size estimates extracted from the TLP database in September 2021.

### Ethics

This evaluation was approved by The Listening Place Board of Trustees. To protect visitors' anonymity, we do not report the exact N of any category which contains fewer than five individuals. Data from visitors who have requested their data be destroyed or not used for service evaluations have not been included.

### Timeline

We extracted data for all visitors, up to and including visitors referred to TLP one month after registered report acceptance, and performed this service evaluation within three months of that date.

## Results

This study was accepted as a Stage 1 Registered Report on the 1<sup>st</sup> February 2022 and registered on the Open Science Framework ([osf.io/7dcq3](https://osf.io/7dcq3)).

### *The Listening Place population*

As of the 1<sup>st</sup> March 2022, TLP had received N=13938 referrals. Referrals had a median age of 32 years (age range: 11 to 96 years, note referrals under the age of 18 are not offered appointments; inter-quartile range: 22 years). Around three-fifths (60.49%) of visitors were cisgender female and 54.60% were of White ethnicity. Just over two-thirds (N=9559, 68.58%) of visitors had attended an initial appointment by this date and nearly one-third (N=4298, 30.84%) their first review appointment. Fewer than five visitors requested their data be destroyed or excluded from data analysis.

Visitors who attended an initial appointment were on average one-year older than those who did not attend (N=13563, t-test = 307.32, df = 27499, P-value = < 0.001), but there was no difference in terms of gender or ethnicity. Measurements of suicidal ideation were all skewed: over half of the visitors scored 4 or more (IQR = 2) on the C-SSRS suicidal ideation score; over half rated themselves as 8 or higher on the feelings of distress thermometer (IQR = 3); 7 or higher on the suicidality thermometer (IQR = 3); and 4.5 or lower on the feelings of support thermometer (IQR = 4). Nearly half (47.46%) of all visitors said they had done something or prepared to do something to end their life in the last month and 77.93% said they'd attempted suicide at least once in their lifetime. Data are presented in ESM Table 1.

Of those who attended the initial appointment, N=3170 went on to meet criteria of being 'supported' (Table 1). When compared to the N=6389 visitors who did not meet these criteria, the 'supported' subgroup were older, by an average of five-years, more suicidal, had more suicide attempts, and rated themselves as more distressed, more suicidal, and less supported. There were no differences between the groups in terms of gender or ethnicity.

### *Subjective experience of TLP*

For the supported subgroup, the Cronbach's alpha of the first ten questions on the visitor experience questionnaire was 0.91 signifying high reliability. For visitors who responded to at least one question (N=1510, 47.63%), the mean summed score was 47.98 (s.d. = 3.58; median = 50, IQR = 3; summed scores could range from 1 to 50). The median visitor experience z-composite score was 0.56 (IQR = 0.84; range -12.00 to 0.56), where a value greater than 0 indicates a positive response. For the wider sample of visitors who attend an initial appointment, Cronbach's alpha was 0.90. For the N=1927 (60.79%) visitors who responded to at least one question, the mean summed score was 47.68 (s.d. = 4.13; median = 50, IQR = 3) and the median visitor experience z-composite score was 0.56 (IQR = 0.73; N= 1874). All data are presented in ESM Table 2 and ESM Figure 1.

In terms of self-reported overall experience of TLP, N=1423 supported visitors provided a response to this question with 90.44% rating their experience as “very good”. Of the visitors who attended an initial appointment and answered this question 89.77% of N=1818 rated their experience as “very good” (see ESM Table 2).

### *Change in suicidality*

For visitors in the supported subgroup (Table 2 and Figure 1), the average suicidal ideation score decreased after three months (t-test = 13.78, df = 1683, P-value < 0.001), as did self-rated thermometer ratings for distress and suicidality (t-test = 36.38, df = 2550, P-value < 0.001 and t-test = 33.63, df = 2536, P-value < 0.001, respectively). The average self-rated thermometer rating for support increased after three months (t-test = -28.27, df = 2532, P-value < 0.001). In terms of suicidal behaviour, there was a 15.12% reduction in the proportion of visitors reporting that they had done something to end their life after three months. There was also evidence that the number of lifetime suicide attempts changed after three months but none of the Bonferroni-corrected post-hoc pairwise comparisons were statistically significant. A similar pattern was observed when the sample was not restricted to supported visitors (ESM Table 3). For lifetime suicide attempts the post-hoc pairwise comparisons suggested a significant change from no attempts to six or more attempts which we discuss below.

### *Factors associated with change in suicidality*

Visitors in the supported subgroup who experienced a greater reduction in self-reported suicidality after three months at TLP were more likely to be younger at referral, have less intention to kill themselves and report fewer lifetime suicidal attempts (C-SSRS Q 6 and Q7), and rated themselves as more supported at the initial appointment. In the multivariable model (N=2011, F(17, 1993)=13.1, P-Value < 0.001, mean squared error = 7.10,  $R^2/R^2_{Adjusted}$  10.05%/9.29%), only reduced suicidal behaviour was associated with a greater reduction in self-reported suicidality after three months at TLP (Table 3 and Figure 2). Although this sample size is smaller than estimated for the *a priori* power calculation, with 100% power our sample is still powered to detect an effect size for the model as small as 0.026.

When looking at all referrals, the multivariable model (N=2578, F(17, 2560)= 18.82, P-Value < 0.001, mean squared error = 7.62,  $R^2/R^2_{Adjusted}$  11.11%/10.52%) showed that visitors who experienced a greater reduction in self-reported suicidality after three months at TLP were more likely to be younger at referral, cisgender male (compared to cisgender female), reported fewer lifetime suicidal attempts, and rated themselves as more supported at the initial appointment (ESM Table 4). The results remained consistent even after excluding influential outliers (N=79 individuals with a Cook’s distance greater than four divided by the sample size minus the number of predictors plus one; results not shown).

### *Missing Data*

The proportion of missing data for all referrals and the supported subgroup is presented in ESM Table 5. A comparison between visitors who answered at least one question on the three questionnaires and those who had the opportunity but did not answer any questions

is provided in ESM Table 6. In brief, younger visitors were more likely to attempt to complete the C-SSRS and the feeling thermometers, at both the initial appointment and the three-month review appointment, but older visitors were more likely to answer at least one question on the visitor experience questionnaire. No gender differences were observed. At the three-month review appointment, White visitors were more likely to answer at least one question on the C-SSRS and visitor experience questionnaire, while visitors who selected 'other' or 'prefer not to say' were less likely to provide data on all three questionnaires.

## Discussion

The number of referrals received by TLP (on average 6-7 per day in this sample) and the number of visitors who attended the full number of appointments offered in the first three months demonstrates a societal demand for an empathetic, non-judgmental, face-to-face listening service for people who are feeling suicidal. Our service evaluation also demonstrates that TLP is working as intended; self-reported suicidality goes down over time, for both visitors who attend all the appointments offered in the first three months and those who miss some appointments. It is a TLP policy that visitors are asked about suicide at every appointment and there is evidence that asking about suicidal feelings does not induce ideation – a common misconception – but that instead it can reduce suicidal ideation and, with repeated questioning, lead to long term improvements in mental health (Dazzi et al., 2014).

While TLP has been shown to have a beneficial impact, at a group-level, our analysis reveals that some visitors experience a greater reduction in suicidality after the first three months: those who do not report preparing or attempting to end their own life prior to receiving support and, in the larger, more heterogenous, sample of all referrals, younger visitors and cisgender male (compared to cisgender female) visitors. We are also aware that there will be visitors who do not experience any reduction in suicidality or report feeling more suicidal; there is a degree of suicidality which, for some people, can be lifelong and feeling suicidal can be a natural reaction to a person's current circumstances. However, TLP's intention is to reduce, not eradicate, suicidality, and the data point to the fulfilment of this aim.

A study of American college students found that mental health, including suicidal ideation, has worsened for all racial/ethnic groups over the last decade, but the rates of help-seeking and use of mental health services, over the same time period, have either decreased for racial/ethnic minority participants or have increased at slower rates compared to White participants (Lipson et al., 2022). Within our sample, we found no evidence of gender or ethnicity biases in terms of who attends their initial appointment at TLP or who attends all the appointments offered in the first three months. However, it is important to note that these studies took place in very different contexts, as TLP offers free support and is not government-funded, and rates of suicidal ideation, stratified by demographic characteristics, in the underlying population are not known. We did, however, find that younger visitors are less likely to attend appointments. Although this suggests that TLP is less accessible to younger people, at the time of writing TLP has always offered appointments between 9am-9pm, seven days a week (removing one barrier to working-age

adults seeking support). This age bias could be a temporal effect which will reduce as the diversity of referral sources increases.

The main limitation of this service evaluation is the study design which adds important caveats to the conclusions we can draw from these data. This is not a randomised controlled trial and there is no control/comparison group. Therefore, we cannot legitimately infer that TLP causes the observed reduction in suicidality. It is possible that this sample of people could have experienced the same alleviation of suicidal feelings without receiving support from TLP. In addition, TLP has not been compared to other interventions to test its comparative benefit. Despite the current NHS waiting lists for mental health support, there is a scarcity of free, immediately accessible, alternative face-to-face support for suicidal ideation in London. We also need to consider the possibility of positive feedback bias (de Barra et al., 2014; visitors with better outcomes may be more inclined to complete the questionnaires or answer more positively), when examining the questionnaires at the three-month review, but in particular the visitor experience questionnaire. Questionnaires are given to visitors by TLP volunteers, although in some cases this is a supervising volunteer and not the listening volunteer they see fortnightly. The reliability and validity of all the questionnaires needs to be taken into account. We have already discussed the validity and reliability of the C-SSRS, but the feeling thermometers are also subject to bias. In political science, respondents are more likely to provide warmer responses in person than when completing thermometers online and, across both contexts, are more likely to select numbers labelled verbally (Liu & Wang, 2015). It is unknown whether TLP volunteers label any thermometers verbally, but '0', '5', and '10' are accompanied by a written label which could have led visitors to round their response up or down.

Another substantial limitation is the lack of long-term follow up. The observed reduction in self-reported suicidality may only be a temporary phenomenon which does not persist once visitors stop receiving support from TLP. The lack of follow up also means that, without linking the TLP data to the UK electronic death statistics, we were not able to access reliable data on fatal suicide attempts. Suicidal ideation is correlated with, but independent of, suicidal behaviour; in non-psychiatric populations the relative risk of a fatal suicide attempt after expressing suicidal ideation is 6.6 (4.61-9.47), and this risk is higher in psychiatric populations (Hubers et al., 2018). Indeed, it became apparent during the analysis of these data that the only data available on suicide attempts (Q7 of the C-SSRS) lacks test-retest reliability (N=221 visitors reported at least one lifetime suicide attempt at the initial appointment and then no lifetime suicide attempts at the three-month review, N=199 reported six plus suicide attempts at the initial appointment and then one to five at the three-month review). However, this could be the result of visitors misreading the question and presuming they are being asked to consider the last three months, in line with the previous C-SSRS questions, rather than their entire lifetime.

### *Conclusion*

This service evaluation of TLP, provides evidence, within the boundaries of the study design, that a face-to-face listening service, provided by trained volunteers, can help alleviate self-reported suicidality and distress and provide support for people who “no longer feel that life is worth living.”



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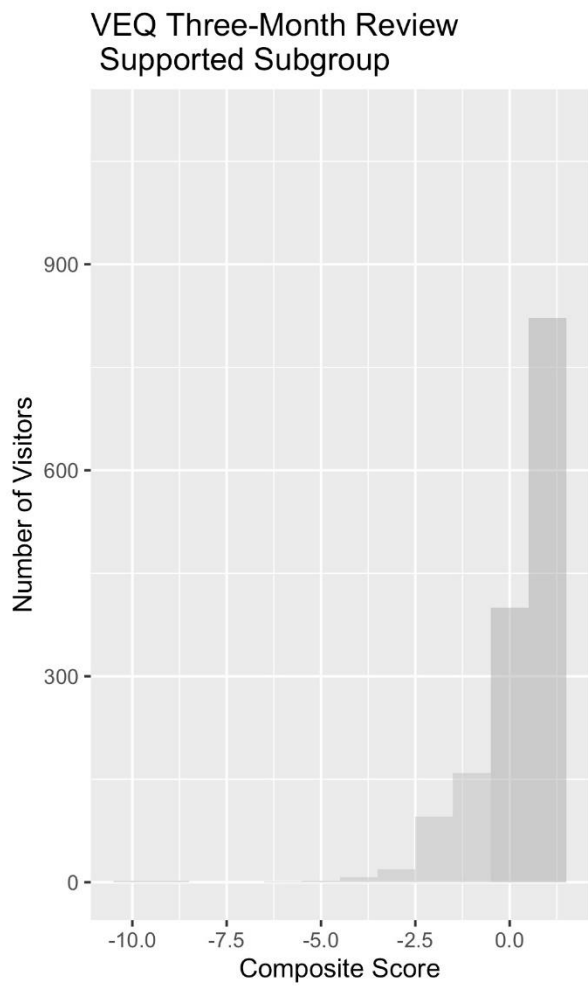
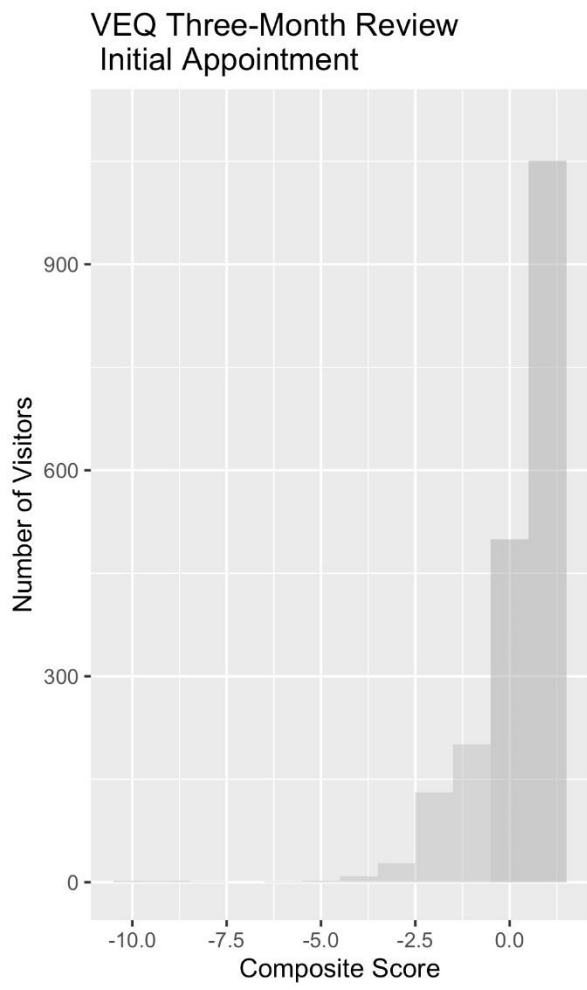


Figure 1. Change In Suicidality

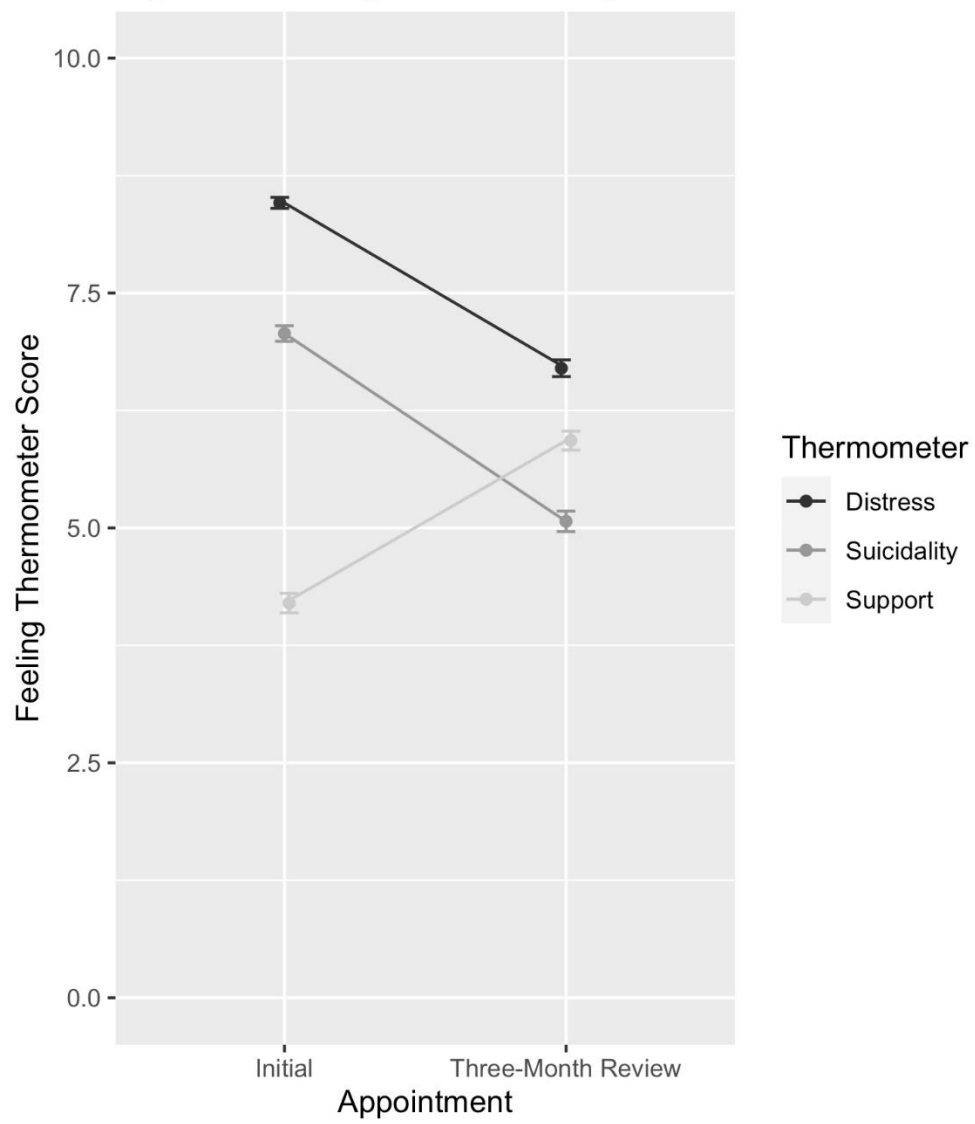


Figure 2. Factors associated with suicidality at the three-month review

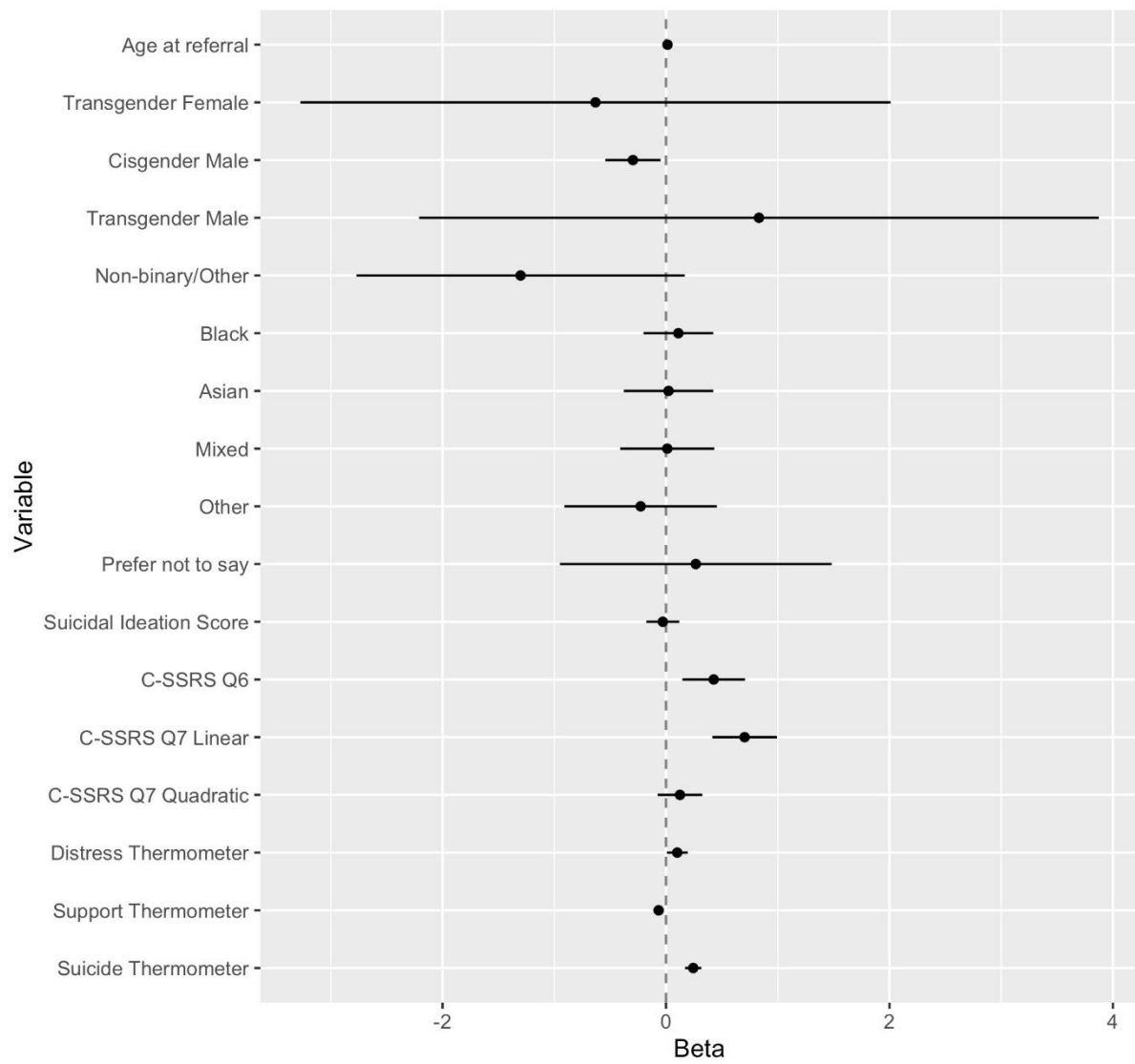
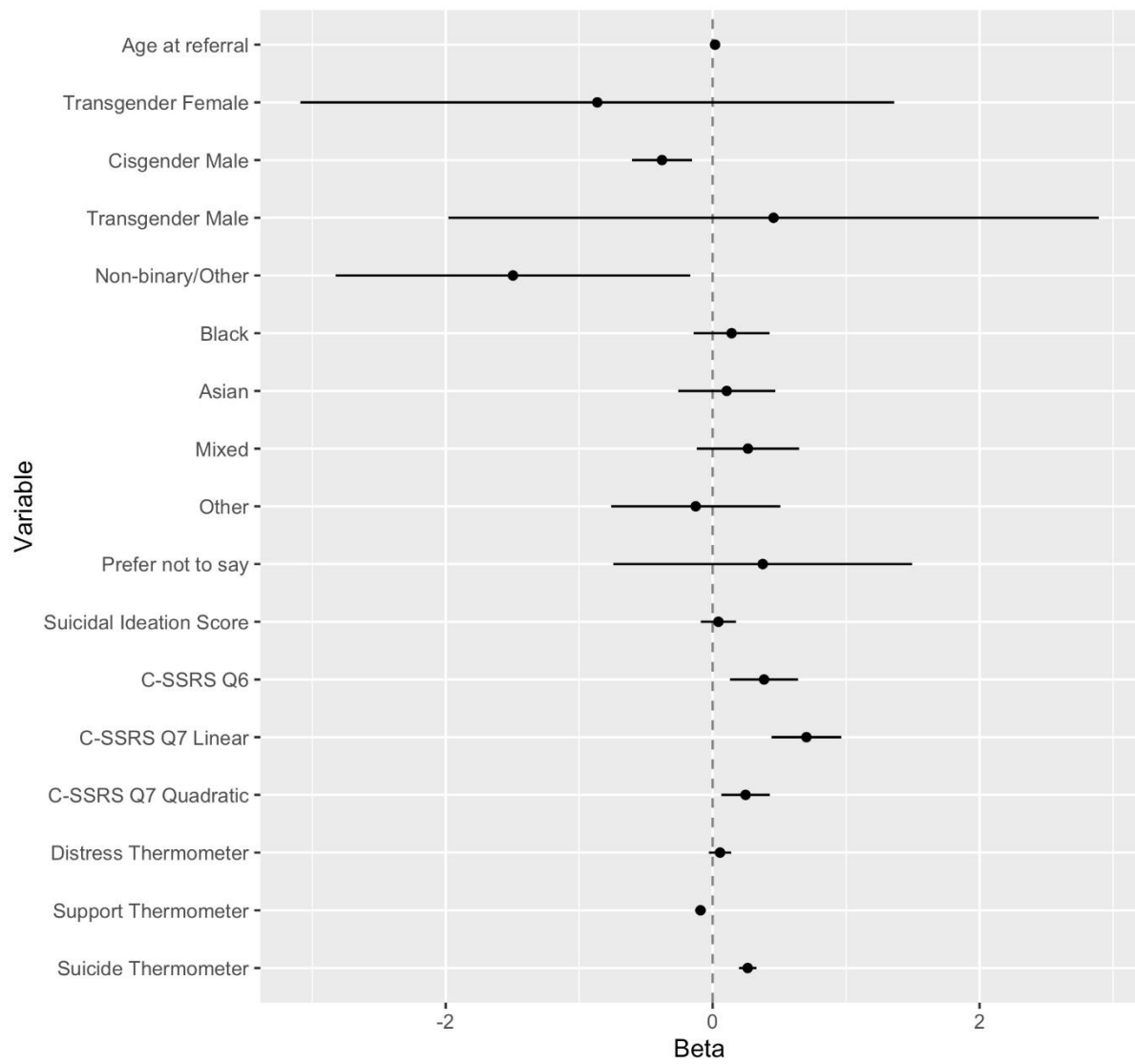


Figure 3. Factors associated with suicidality at the three-month review (all referrals)



**Table 1. The Listening Place (TLP) visitors who attended an initial appointment.**

	Visitors in the "supported" subgroup <sup>1</sup>	Visitors who did not meet "supported" subgroup criteria	N	Statistic <sup>2</sup>	P-value
N	3170	6389			
Age at referral					
Mean (sd)	37.98 (13.46)	34.70 (13.22)	9501	-257.14	< 0.001
Median (IQR)	36 (23)	31 (21)			
Gender (%)					
Cisgender Female	1937 (61.10%)	3848 (60.25%)	9557	1.75	0.782
Transgender female	7 (0.22%)	17 (0.27%)			
Cisgender Male	1192 (37.60%)	2465 (38.59%)			
Transgender male	10 (0.32%)	18 (0.28%)			
Non-Binary/Other	24 (0.76%)	39 (0.61%)			
Ethnicity (%)					
White	1730 (55.34%)	3311 (53.73%)	9288	6.77	0.239
Black	619 (19.80%)	1187 (19.26%)			
Asian	335 (10.72%)	688 (11.17%)			
Mixed	293 (9.37%)	625 (10.14%)			
Other ethnic group	110 (3.52%)	270 (4.38%)			
Prefer not to say	39 (1.25%)	81 (1.31%)			
Suicidal ideation score					
Mean (sd)	4.17 (0.96)	4.00 (1.04)	7859	-300.03	< 0.001
Median (IQR)	4 (2)	4 (2)			
C-SSRS Q6 Have you done anything, started to do anything, or prepared to do anything to end your life?					
			8879	25.38	< 0.001
No	1493 (48.84%)	3172 (54.48%)			
Yes	1564 (51.16%)	2650 (45.52%)			
Q7 In your entire lifetime, how many times have you done any of these things?					
			8234	42.91	< 0.001
None	529 (18.78%)	1288 (23.78%)			
One-Five	1654 (58.71%)	3169 (58.50%)			
Six+	634 (22.51%)	960 (17.72%)			
Distress					
Mean (sd)	8.44 (1.51)	8.22 (1.63)	9002	-454.97	< 0.001
Median (IQR)	9 (2)	8 (3)			
Suicide					
Mean (sd)	7.06 (2.13)	6.51 (2.47)	8982	-249.72	< 0.001
Median (IQR)	7 (4)	7 (3)			
Support					
Mean (sd)	4.22 (2.66)	4.47 (2.77)	8972	-142.47	< 0.001
Median (IQR)	4 (4)	5 (4)			

Note:

<sup>1</sup> Visitors were classed as “supported” if they attended an initial appointment, at least six listening appointments, and a review appointment.

<sup>2</sup> Paired sample t-tests were used for continuous variables and McNemar-Bowker symmetry tests for categorical variables.

Abbreviations: C-SSRS, Columbia Suicide Severity Scale; sd, standard deviation; IQR, inter-quartile range

**Table 2. Change in suicidality for The Listening Place (TLP) visitors in the “supported”<sup>1</sup> subgroup (N=3170)**

	N	Initial Appointment Yes (%)	Three-Month Review Appointment Yes (%)	Statistic <sup>2</sup>	P-Value
<b>Columbia Suicide Severity Scale (C-SSRS)</b>					
Suicidal Ideation Score (Q1-5)	1684			13.78	2.20E-16
Mean (sd)		4.26 (0.92)	3.86 (1.07)		
Median (IQR)		5 (1)	4 (2)		
Q6 Have you done anything, started to do anything, or prepared to do anything to end your life? (% Yes)	2421	1254 (51.80)	888 (36.68)	147.85	2.20E-16
Q7 In your entire lifetime, how many times have you done any of these things? (% Yes) <sup>3</sup>	1911			8.07	0.045
None		341 (17.84)	313 (16.38)		
One-Five		1152 (60.28)	1172 (61.33)		
Six+		418 (21.87)	426 (22.29)		
<b>Feeling Thermometer Scales</b>					
Distress	2551			36.38	2.20E-16
Mean (sd)		8.46 (1.49)	6.70 (2.31)		
Median (IQR)		9 (2)	7 (3)		
Suicide	2537			33.63	2.20E-16
Mean (sd)		7.07 (2.13)	5.07 (2.82)		
Median (IQR)		7 (4)	5 (4)		
Support	2533			-28.27	2.20E-16
Mean (sd)		4.20 (2.65)	5.93 (2.59)		
Median (IQR)		4 (4)	6 (4)		

Note:

<sup>1</sup> Visitors were classed as “supported” if they attended an initial appointment, at least six listening appointments, and a review appointment.

<sup>2</sup> Paired sample t-tests were used for continuous variables and McNemar-Bowker symmetry tests for categorical variables.

<sup>3</sup> Bonferroni-corrected post-hoc pairwise comparisons: None vs. One-Five, P-Value = 0.071; None vs. Six+, P-Value = 0.711; One-Five vs. Six+, P-Value = 1.070.

Abbreviations: sd, standard deviation; IQR, inter-quartile range