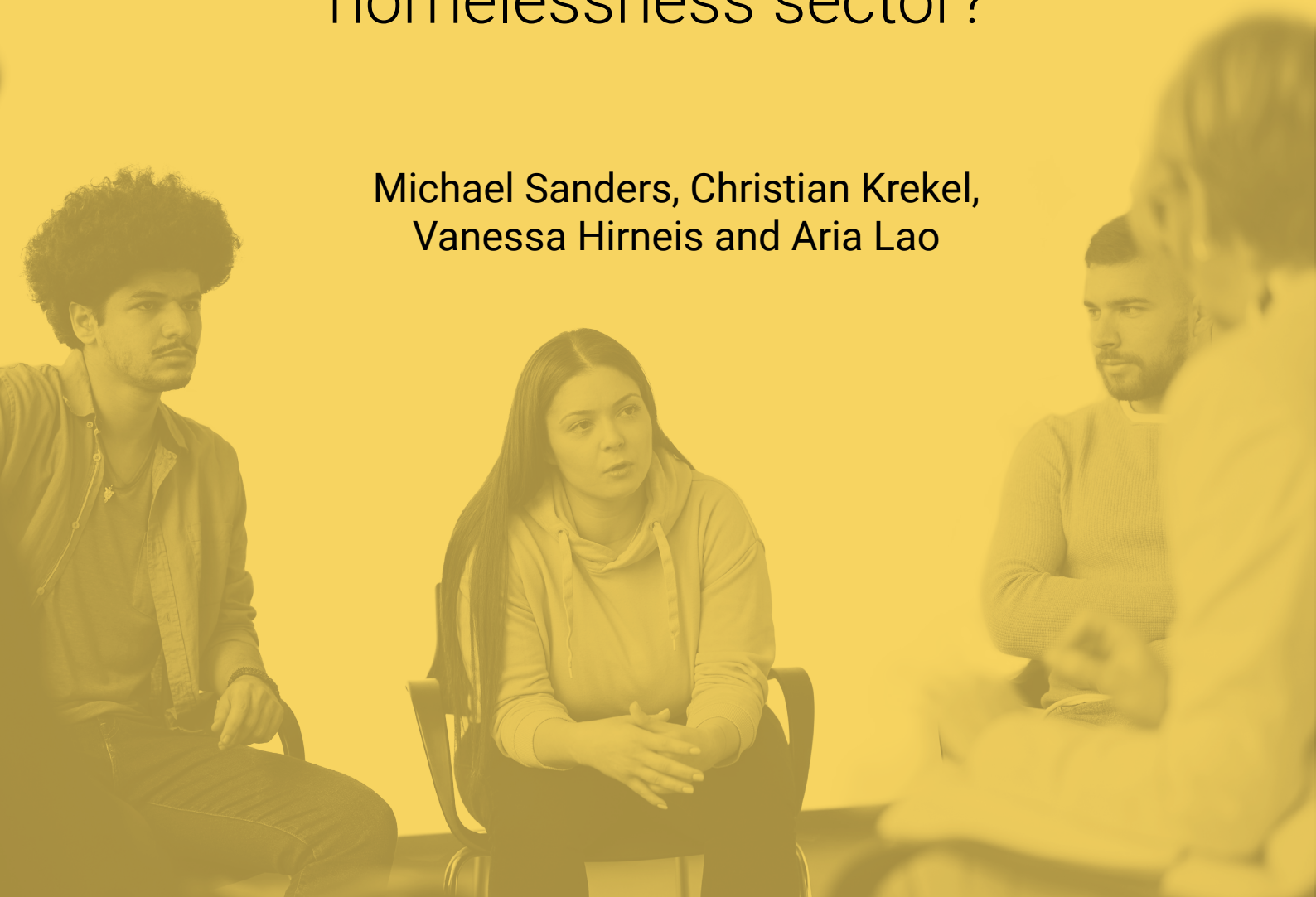
Centre for Homelessness Impact

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Evidence from a Randomised Controlled Trial

Can a low-cost social support intervention improve wellbeing of frontline workers in the homelessness sector?

Michael Sanders, Christian Krekel,
Vanessa Hirneis and Aria Lao



Findings in brief:

People working in the homelessness sector are at a heightened risk of burnout, often working difficult hours and with emotionally charged, public service-oriented work.

Based on existing evidence from the United States, we conducted a randomised controlled trial to test a weekly email intervention, designed to reduce burnout and improve wellbeing among people working in the homelessness sector in the UK.

While the intervention was well-received by participants, the findings suggest a limited and inconsistent impact on burnout and wellbeing outcomes.

Feedback from participants suggests heavy workloads may have limited their engagement with the emails, potentially impacting the trial's outcomes.

Recommendations in brief:

Light touch interventions may be insufficient for substantial wellbeing improvements in the UK homelessness sector. Targeted interventions may offer some benefit, but support must also address structural realities like high workloads and limited time for engagement.

Further research, including innovative and robustly tested approaches, is needed to determine what improves wellbeing for frontline homelessness staff.

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About the Centre for Homelessness Impact

The Centre for Homelessness Impact champions the creation and use of better evidence for a world without homelessness. Our mission is to improve the lives of those experiencing homelessness by ensuring that policy, practice and funding decisions are underpinned by reliable evidence and data.

About the London School of Economics

The London School of Economics and Political Science (LSE) is a specialist social science university ranked first in London and 6th in the world in the QS World University rankings in social sciences and management.

About Exogeneity

Exogeneity is a social purpose consultancy, focused on driving scalable, evidence-driven change in the public and voluntary sectors. We work with partners and clients on a blend of strategy and research consultancy to improve a wide range of outcomes.

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Executive summary

People working in the homelessness sector are at a heightened risk of burnout, often working difficult hours and with emotionally charged, public service-oriented work. Existing evidence from the United States has shown that a light-touch social support intervention can have significant impacts on workforce wellbeing, sickness, and turnover.

Background

The intervention - 'Improving wellbeing for Frontline Workers in the Homelessness Sector' (IWFWHS) - involves a series of 6 weekly emails sent to frontline workers. The messages focus on a different topic every week: (1) Prosocial impact, purpose and meaning; (2) Dealing with challenging situations and problem-solving; (3) Stepping up the role, multitasking and stress-management; (4) Traits consistent with being a frontline worker and identifying unique strengths; (5) Reflecting; (6) Self-care and work-life balance; and (7) Personal aspirations and achievements. The emails also include a link that will allow participants to share their experiences or stories (respond to the emails). The present study seeks to establish the impact of the intervention on burnout in frontline workers working directly with people experiencing homelessness in the UK, including the associated secondary outcomes such as sense of social support from other peers and sense of feeling connected to one's profession.

Methods

We conducted a randomised controlled trial with people working in the homelessness sector in the UK to test an intervention that comprises weekly emails, each on a different theme, which aim to create a sense of social support and belonging in workers, and in so doing reduce burnout, which is the primary outcome measure for this study. Half of the participants were randomly assigned to receive the intervention, while the other half were not, and received no additional intervention.

Findings

Impact evaluation

In total 415 participants were recruited to the trial, consented and randomised. Participants were surveyed at baseline (N=249), midline after 6 weeks (N=186) and endline after 24 weeks (N=165) on a range of outcomes including burnout, their sense of social support and belonging; their wellbeing; and mental health outcomes. This was lower than the intended sample size of 550 participants due to challenges in recruitment.

Although there is high attrition (40% from consent to midline, and 48% from consent to endline), this is not unusually high for a study of this type. We do not find evidence of higher attrition in one group than the other and the sample size of our study remains comparable to the original study in the United States.

There were no significant effects on the primary outcome, burnout at either the midline or endline points of the trial. We found promising evidence of moderate sized effects at the midline point, but by endline, effects were only found on belongingness, suggesting that any effects that did occur were temporary.

Outcome	Qualitative descriptor	Effect size	95% confidence interval	Interpretation
Burnout	Small Positive Impact	-0.18	[-0.41, 0.05]	The estimate suggests a small positive impact (a reduction in burnout), but the wide confidence interval indicates uncertainty, including the possibility of no effect or even a small negative impact.
Connectedness	Moderate Positive Impact	0.24	[-0.049, 0.56]	We see a small positive effect on connectedness, but the confidence intervals are fairly wide.
Belonging	Moderate Positive Impact	0.45	[0.17, 0.74]	This estimate shows a positive, and fairly large effect on belonging, but this is partially offset by negative effects elsewhere
Social Support	Moderate Negative Impact	-0.23	[-0.53, 0.054]	We see a small negative effect on social support.
Scale of Positive and Negative Experiences	Small Negative Impact	-0.15	[-0.44, 0.15]	We see a small, but imprecisely estimated negative effect on this measure.
Life satisfaction	Moderate Negative Impact	-0.19	[-0.46, 0.05]	We see a negative, moderately sized effect on participant wellbeing measured using the life satisfaction question.

Outcome	Qualitative descriptor	Effect size	95% confidence interval	Interpretation
Life worthwhile	Moderate Negative Impact	-0.16	[-0.89, 0.22]	We see a negative, moderately sized effect on participant wellbeing measured using the worthwhileness question.
General Anxiety Disorder	Negligible Negative Impact	0.05	[-0.21, 0.32]	We see a negligible effect on anxiety
Patient Health Questionnaire	Moderate Negative Impact	0.24	[-0.11, 0.67]	We see a moderate negative effect on the PHQ, which measures depression. However, this is imprecisely estimated.

Implementation and process evaluation

Qualitative findings suggest that participants found it hard to engage with different aspects of the trial due to their already high workload which may have impacted the present findings. Participants felt able to relate to the personal shared stories in the weekly emails and appreciated that it gave them a sense of community but did not perceive their wellbeing to be positively affected. Nonetheless, it is important to note that some interviewed participants pointed out their workload may have prevented them from engaging with weekly e-mails and stories in meaningful ways, which may have negatively impacted the findings from the impact evaluation.

Recommendations

Although this approach showed positive impact when trialled with emergency service call handlers in US cities, using emails appears to be a less effective way to support wellbeing among frontline homelessness staff, who received high volumes of work-based emails. We find limited evidence of positive effects, and so although this suggests that the intervention does not cause any harm, it suggests that light touch interventions like these may be insufficient to 'move the dial' on wellbeing in the homelessness sector in the UK.

While targeted interventions like this may offer some benefit, these results underscore the necessity of designing support that acknowledges the wider context of frontline roles, including structural realities like high workloads, sectoral precarity, and limited time for engagement. To improve wellbeing, frontline workers may require not only targeted interventions, but broader organisational and policy-level change. Continued efforts should be made to find out what works to improve the wellbeing of people working in frontline homelessness roles, by encouraging innovative approaches and testing them robustly.

Introduction

In the UK, client-facing staff working with people experiencing homelessness experience lower wellbeing than other types of workers. In 2022, 58% of client-facing workers reported feeling that their role had a negative impact on their wellbeing. In addition, the negative impacts of the cost-of-living crisis, coupled with worsening working conditions (e.g. lower funding and staff shortages), and an increase in the demand for homelessness services, has led to the worsening of working conditions of frontline workers.[1]

Due to the nature of their work, frontline workers in the homelessness sector are exposed to high-stress situations that require significant physical and mental strength. In addition, they support clients who have experienced trauma, suffering, and significant deprivation[2] - these experiences can potentially lead to burnout.[3] Client-facing workers who experience burnout are also more likely to leave the sector altogether, which results in the loss of experienced talent and people committed to the cause of reducing homelessness.[4]

A literature review was conducted as part of this project. Several peer-reviewed studies were identified that provided evidence that interventions can reduce burnout in frontline workers working primarily in the health sector. The intervention tested in this trial was among these studies[5], and had been previously tested with 911 call operators in the United States.

This trial was proposed for replication due to its effectiveness in reducing burnout in frontline workers (effect size = 0.43, a medium-sized effect), low cost and ease of implementation (online intervention). In addition, the literature review of this project identified a lack of evidence of interventions implemented in the homelessness sector to reduce burnout in staff. The intervention was similar to the one conducted by Linos et al (2022) but adapted to the context of frontline workers working with people experiencing homelessness in the UK.

By sending social support messages directly to frontline workers via email, and due to immersive story-sharing amongst them, the intervention targets feelings of perceived social support and, thereby, is expected to increase feelings of belongingness and connectedness amongst frontline workers, as well as their professional identification. This, in turn, is hypothesised to reduce burnout, mental health issues, and increase wellbeing.

The 6-week social affirmation belonging intervention (described later in Table 1) was implemented to reduce burnout in frontline workers working in the homelessness sector. The comparator will be a no-treatment control group.

The evidence on what works to reduce burnout in frontline workers in the homelessness sector in the UK is very scarce. Therefore, the evaluation of this programme is needed to reduce this gap and work on actionable policies that, if successful, could be implemented by the homelessness sector to improve the wellbeing of staff at a very low cost. This project was conducted in partnership with St Martin-in-the-Fields Charity; the Centre for Homelessness Impact; Exogeneity; and the London School of Economics. Earlier stages of the project (before the trial was launched) were conducted by the What Works Centre for Wellbeing (WWCW), prior to that organisation's closure.

The trial protocol was pre-registered on the Open Science Framework and can be accessed via https://osf.io/svz82/.

Ethical clearance was received from the Research Ethics Committee at the London School of Economics.

The project was funded by St Martin-in-the-Fields Charity.

About the intervention

The intervention tested in this project is a social support intervention, modified by WWCW in consultation with St Martin-in-the-Fields-Charity from the intervention developed and evaluated by Linos et al (2022). This intervention has previously been shown to have positive effects on the wellbeing of 911 call operators in the United States and has been altered to be more appropriate for a frontline homelessness workforce in the UK.

The intervention comprises six emails, sent to participants over the course of six weeks (one email per week on Wednesdays). Each email introduced a particular theme of social support and belongingness in the workplace and then showed a story gathered from frontline workers like the recipients (these were gathered as part of a prior project). A description of each theme and example stories can be found in the table below. Each week participants were also encouraged to provide their own example stories. These stories were then reviewed by the research team and, where appropriate, posted online to a website to which all intervention group participants have access.

Table 1. Intervention themes and stories.

Week	Theme	Example Story
0	Making a Difference	"I love giving a voice to those who have lost their voice. Supporting a first-time, disabled, homeless lady veteran, who was over 50 years old, through court, finding her shelter, rehab, veteran support, hip replacement, and sorting her benefits. I watched her grow from a terrified woman who could not make eye contact, to a confident, head-held-high veteran who has their own house and is now travelling around the country, running and raising money for the service. Why do I do my job? I know what it is like to be alone and without hope, with no one to see me - like one is invisible and to feel so broken that the world becomes darkness. I bring time, hope, love and laughter. I won't stop advocating and using my voice, using their words so the unengaged become engaged once more."
1	Making a difference	"We are making a difference in people's lives - one by one. And that's good enough for me! I have been working in this sector all my adult life and have had a number of roles where I have had the opportunity to meet and support many inspiring and creative people to become the best they can be and overcome the obstacles in their path. I can't imagine not working with people to help them become the best version of themselves. "
1	Making a difference	"One of my staff did a drop-in with homeless clients in temporary accommodation, one of the ladies had been in the TA for over two years and was suffering from agoraphobia and was self-neglecting, not eating well and was very isolated. The staff member worked at the client's pace (which was slow) to build trust and support the client to look at what she wanted help with. She was very scared to move anywhere, but with support she started to bid for social housing properties, eventually gaining one in a seaside town- the staff member supported her to move and settle in with minimum fuss and advocated for her with partner services, the housing association and a new GP. This client is now feeling much better, attending church, has visitors, and enjoys her garden. She has settled in well, and her levels of anxiety are much lower on a day-to-day basis."

Week	Theme	Example Story
1	Making a difference	"Zahra* contacted our project whilst sofa surfing with friends who could no longer accommodate her. Zahra had left her accommodation fleeing domestic abuse and had made a homelessness application to her local authority. She had been given a letter, warning her that her local authority was not going to find her in priority need. There was no mention of domestic abuse in this letter, despite Zahra telling them. She was struggling to get hold of her housing officer and felt mentally exhausted, as she was also dealing with a lot of concerns around her physical health at this time. The housing adviser wrote to Zahra's housing officer and explained her situation, that because Zahra was homeless due to fleeing domestic abuse, she had an automatic priority need. This led to her local authority accepting a main housing duty and providing Zahra with temporary accommodation. Zahra said: "The housing adviser was so helpful. She listened carefully to my case and my struggles, explained the laws relating to me and my position, dealt with my case in a very professional manner and contacted the council on my behalf. Without the housing adviser, I would still be sleeping in my car and sofa surfing. I couldn't thank her enough for all the help and support she provided. You are making a difference in people's lives. Please keep it up." *Name changed to protect anonymity
1	Making a difference	"I worked as a caseworker in a homelessness drop-in service when a young man came for housing advice and support. He had been homeless/sofa-surfing for months due to a breakdown in family relationships and ongoing health issues. I helped him access his tenancy in a new flat, start receiving PIP, and begin meaningful work for him. When I left this job, he wrote me the most meaningful 'thank you' letter, describing the genuine difference my help had made and how people close to him were noticing a change in him now that he had stable accommodation and was accessing the support he was entitled to."
2	Dealing with challenging situations/ Problem-solving	"I enjoy the work and can see the positive impact of advocating for people who don't feel they have a voice that is listened to. The system often does not work for people facing homelessness, and if I can support someone to navigate the system more easily and achieve their desired outcomes, then that is great! By assisting and empowering them to see the results at the end of the support is reward enough for me."

Week	Theme	Example Story
2	Dealing with challenging situations/ Problem-solving	"We support people in unsupported temporary accommodation that is privately run hotel and B&B style. One of the landlords had issued eviction notices to everyone after complaints had been made about the state of disrepair, pest infestation and lack of facilities. We used our knowledge of housing rights and law to determine if the eviction notices could legally stand, reached out to Shelter for advice to confirm this and then contacted someone in the Council to inform them of what happened. As a result of this, the Council conducted homeless assessments in our centre which was a great way to build a relationship with them and enabled our clients to feel more comfortable in a space they knew. Some of the residents hadn't previously wanted support with housing as they'd lived there for many years, but now they felt motivated to find something safer and more appropriate. Everyone who wanted to leave has now been rehoused. It's been amazing to see the change in people and the increased independence as they get used to being in their own flat, with support still provided by us. Having the knowledge and connections with other services enabled us to reassure them and find a quick and positive outcome. "
3	Stepping up to role/ Multitasking/ stress management	"I really enjoy my job, especially helping people to make breakthroughs and changes which will have an impact on them, and I am good at it, which overrides the stress of the job and low pay for me. Because I have quantifiable evidence that I am making a difference. When I carry out my assessments, if I can make someone feel positive despite their stressful situation, I count that as a win."
3	Stepping up to role/ Multitasking/ stress management	"It seems easy to experience burnout in this kind of work, especially when you have a lot going on in your personal life. I've found it hard to balance everything and had to use annual leave to catch up on life administration or use my breaks to sort urgent things out. This means on my days off, I'm not resting, which can lead to more exhaustion. We all need to take a proper break, take time to unwind and switch off from work, and reach out to friends, family or your support network for help and support with things. We are all doing our best, and that's all we can do."

Week	Theme	Example Story
4	Traits consistent with being a good frontline worker/ Identifying unique strengths	"I feel lucky to be in my situation. My job has overwhelmed me at times but also provides inspiration and learning that has allowed me to heal from my childhood trauma. The workplace culture is changing for the better I feel, even in these difficult times. and I feel we learned a great deal from the pandemic about social isolation, mental health and work-life balance. I am as always hopeful for the future."
4	Traits consistent with being a good frontline worker/ Identifying unique strengths	"My staff and I deal with challenging situations daily; we make space for reflection and debriefing during team meetings and supervision. We have just dealt with two unexpected client deaths in the last couple of months. As individual workers and as a team, this has felt challenging from the perspective that we have supported the people to meet their needs, but serious illnesses were something that could not be controlled/managed. Staff need to be assisted and supportive of each other. They need to be resilient enough to continue with their work when sometimes the outcome can be challenging; they need to be able to deal with their responses, emotions, and feelings and continue to be professional during what can feel like a difficult time."
5	Reflecting	"I continue to work for my organisation because I genuinely believe everyone here cares about the cause. My role can in some ways negatively affect my wellbeing, but in other ways, it provides a sense of purpose and fulfilment as this work matters."
5	Reflecting	"I'm so fortunate to work for an organisation that puts a huge emphasis on the wellbeing of staff. I have monthly supervision sessions with an external supervisor, where I can process difficult client situations, think through best support practices, as well as check in on my emotional and mental health. The risk of secondary trauma in our work is real; supervision helps me debrief, check for any red flags, and celebrate what's going well."
5	Reflecting	"We use reflection regularly and try to build it into our work. We have access to external supervision and we've had someone coming in to facilitate 'casework discussions' once a month, a chance for us to deliberate and problem-solve together. The beauty of being part of a small team is being able to collectively reflect often. During our team meetings, we have time to talk about challenges and come up with solutions together. It's a really key part of how we work and enables us to deal with situations better and what could be different. This means we can come up with creative answers to better support our clients."

Week	Theme	Example Story
6	Aspirations/ Achievements	"I really value this work. I am personally motivated by issues of social justice and outside of work I am involved in campaigns and community groups. I feel very lucky to have found a job that pays me to work alongside people to challenge injustice."
6	Aspirations/ Achievements	"In my desire to help people I've learnt that I'm a natural empath and lean towards caring and nurturing, since childhood. It's very common for people in support work roles to have lived experience, and we're sometimes called 'wounded healers'. I believe in safe and secure housing for all, and I am passionate about social justice. This motivates me to support people and move towards positive change. My personal development has been huge during my career. Being exposed to trauma, different types of people and a wide range of privileges gave me a better understanding of different people's lives."
6	Aspirations/ Achievements	"I have always been passionate about helping others because there were moments in my life when I was unsuccessful in finding support. Statistics from 2024 show a continuous rise in homelessness. I've worked in other support roles, where due to barriers of entry and suitable funding measures, people were unable to successfully achieve housing in short time spans. In the 2 years I have spent in this role, I have been able to see some people secure housing outcomes quickly thanks to new projects related to funding."

Impact evaluation

Methods

The goal of this trial was to evaluate the impacts of the intervention on a range of outcomes relating to the wellbeing of participants.

Participants were recruited through a combination of emails sent out to a mailing list held by the delivery partner, and through a limited recruitment effort using social media (LinkedIn and Twitter (now 'X').

Having been recruited, participants were asked to give their consent for randomisation and to be contacted and subsequently randomised to the intervention or the control condition in batches each week. Randomisation was conducted by St Martin-in-the-Fields using a template provided by Exogeneity. Each group of participants randomised together is described hereafter as a "Cohort" of participants.

They were also asked to complete a baseline survey, which captured basic demographic characteristics (i.e. age, gender, ethnicity, level of education, religion, marital status, number of children in household, working status, and years of work experience), as well as their baseline levels of the various outcome measures.

Participants in the treatment group subsequently received the six treatment emails over the course of the next six weeks. After six weeks, participants were invited to complete a midline survey capturing all of the outcome measures again after the intervention had been delivered. Due to concerns about attrition and particularly asymmetric attrition between treatment and control, the decision was taken to incentivise completion of the endline survey using £10 shopping vouchers.

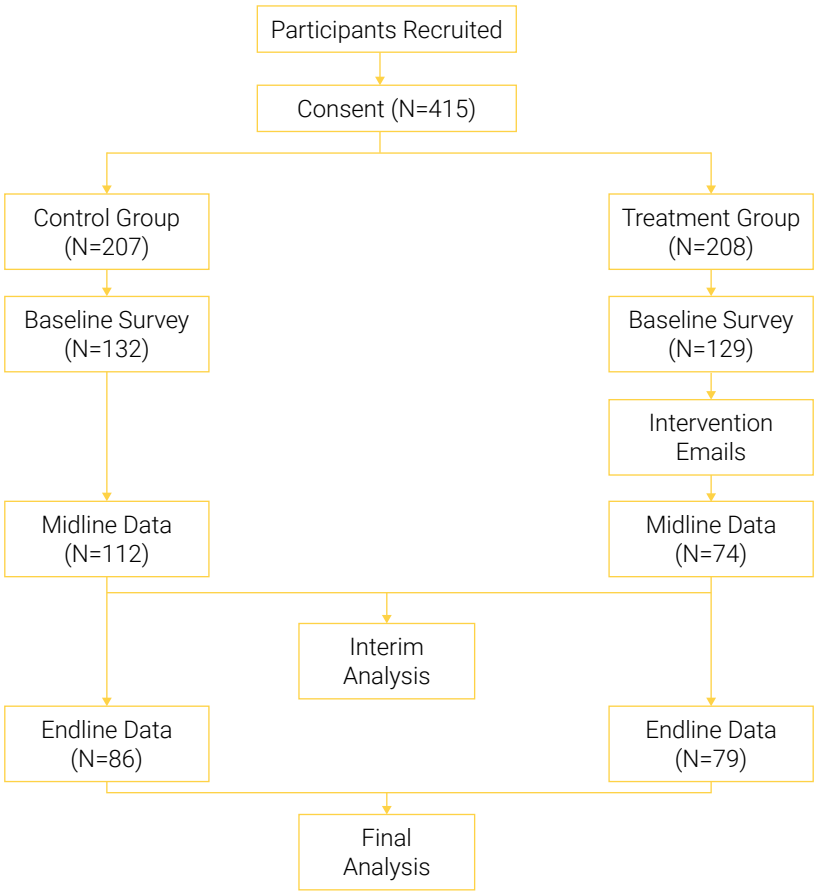
Participants were then asked to complete these surveys again after 24 weeks. In addition to the impact evaluation, we also conducted an implementation and process evaluation (IPE) to gather information about the trial's fidelity and to gain more insight into participants' and implementation leads' experiences throughout the research.

Participants

Participants were recruited to the trial via the network channels of St Martin-in-the-Fields Charity (SMITFC), who also sent out the intervention materials. SMITFC network channels consist of frontline workers who had previously applied for an emergency grant via participant signup to MailChimp or who had subscribed to the newsletter of the organisation. We set out to recruit a total of 550 participants for the trial, expecting attrition of about 30%.

Participants were recruited over nine cohorts (one cohort per week) in order to group people with the same intervention start date together. The first cohort was randomised and sent the baseline survey on February 28th 2024. The number of participants recruited, randomised, and who completed each survey can be seen in Figure 1, below.

Figure 1. Trial procedure and sample sizes.



Given the level of drop-out between baseline and midline data collection was anticipated to be 30%, we have approximately met this attrition forecast (23.5% to midline and 32.6% to endline), however, dropout between *randomisation* and mid and endline data collection was higher than anticipated, (51.1% and 61.2% respectively). We also had a smaller sample size than intended. We had anticipated recruiting 550 participants, with 30% dropout giving approximately 200 participants per arm. This would have given us statistical power to detect effects of 0.28 standard deviations. Instead, we were powered to detect effects of 0.44 standard deviations without covariate adjustment. The R squared of our model without treatment effects varied between 0.25 and 0.3. Taking the more conservative of these, we were powered to detect effects of 0.38 standard deviations with 80% power. This is larger than we intended when the study was designed, but remains smaller than the effect detected in the original study with 911 call operators (d=0.43).

Outcome measures

Alongside demographics (i.e. age, gender, ethnicity, level of education, religion, marital status, number of children in household, working status, and years of work experience), participants were asked to complete survey questions (see annex A) relating to a range of outcomes. These were a mix of primary, secondary, and exploratory outcomes, and are described in turn below.

Primary

Copenhagen Burnout Inventory (CBI) - this is an 18-item scale divided into three elements - personal, work, and client. It seeks to measure burnout across these three dimensions of a participant's life. We consider the inventory as a whole in this analysis.

Secondary

Scale of Positive and Negative Experiences (affect) - this six-item scale asks questions about the balance of positive and negative experiences in participants' lives.

Social Support - we asked a single question about people's perceived social support from colleagues when in need.

Connectedness - a single-item question assessed the frequency with which participants meaningfully interact with others at work.

Belonging - we used a single-item question about whether people feel a sense of belonging at work.

Worthwhileness - we used the worthwhileness question from the ONS4 measures of subjective wellbeing.

Life satisfaction - we used the life satisfaction question from the ONS4 measures of wellbeing.

Exploratory

GAD7 - This is the General Anxiety Disorder -7 questionnaire which has seven items.

PHQ9 - this is the Patient Health Questionnaire, which has nine items and was used to measure and diagnose depression.

Deviations from the protocol

We had intended to include sickness absence as an outcome measure, but the level of missingness of this variable was very high due to selective non-response, and so we have not analysed it here. The protocol also included a measure of professional identification, but this was not collected.

Balance between intervention and control

415 participants were recruited to the study and randomised. Baseline data were collected for 249 participants (although not all participants answered all items), with 186 participants completing midline surveys (51.1% attrition) and 165 completing endline surveys (60.2% attrition). These datasets were merged together using the unique identifier produced by the delivery partner. Demographic data are shown below in table 2 for baseline and endline.

Table 2. Demographics at Baseline and Endline

	Variable	Baseline		Endline	
		Proportion	N	Proportion	N
Age	Under 16	0.01	3		
	16-24	0.02	5	.01	2
	25-34	0.22	57	.17	28
	35-44	0.23	60	.17	28
	45-54	0.26	68	.20	32
	55-64	0.21	55	.16	26
	65-74	0.03	8	.03	5
	75-84	0	0		0
	Above 85	0	0		0
	Prefer not to say	0.01	5		
Gender	Female	0.73	191	.38	63
	Male	0.25	65	.60	98
	Non-binary	0.02	5	.02	3
	Prefer not to say	0	0		1
Ethnicity	White	0.86	224		110
	Mixed / Multiple ethnic groups	0.03	8		3
	Asian or Asian British	0.02	5		2

	Variable	Baseline		Endline	
		Proportion	N	Proportion	N
	Black or Black British	0.08	21		7
	Other	0.01	3		0
	Prefer not to say	0	0		0
Marital Status	Single	0.29	76	.26	32
	Married, in civil partnership, or living with partner	0.56	146	.61	75
	Separated, but still legally married or in civil partnership	0.03	8	.02	2
	Divorced	0.1	26	.10	12
	Widowed	0.01	3	.01	1
	Prefer not to say	0.01	2		
Education	Degree	0.51	133	.53	65
	Other higher degree	0.18	47	.17	21
	A-Level etc	0.14	37	.11	13
	GCSE etc	0.03	8	.03	4
	Other qualification	0.12	31	.15	18
	No qualification	0.01	3	.01	1
	Prefer not to say	0.02	2		
Religious Affiliation	No religion	0.56	146	.56	68
	Christian	0.37	97	.37	45
	Buddhist	0.01	3	.01	1
	Jewish	0	0	.02	3
	Muslim	0.01	3	.04	5

	Variable	Baseline		Endline	
		Proportion	N	Proportion	N
	Any other religion	0.02	5		
	Prefer not to say	0.03	7	261	
Working Status	Full-time (30 or more hours)	0.9	235	.88	107
	Part-time (8-29 hours)	0.09	23	.11	13
	Part-time (Less than 8 hours)	0.01	3	.01	1
N		261			121
No Baseline Data		154			44
	Total Randomised	415		**Total Analysed**	165

Table 3, below, shows the baseline rates of our main outcomes as well as by treatment and control. This is further split to consider those who are lost to follow-up and those who we retained in the sample at endline. We see that in general there was limited imbalance between treatment and control on baseline measures of the outcome measure and demographics. We also found that attrition between baseline and endline was not imbalanced, with generally good balance at endline on covariates. For two variables; life satisfaction and worthwhileness, the balance between baseline levels of these measures was better at endline than at baseline, although the differences were not statistically significant in formal tests. There is some evidence of differential attrition on gender, which saw an increase in the gap in the portion of the sample that is female between baseline and endline.

In all of our analyses, we controlled for demographics and baseline levels of each outcome to control for any remaining differences, and to increase statistical power.

Table 3. Baseline rates of main outcomes and by treatment and control.

Baseline Variable:	All participants			Lost to Follow-Up by endline			Remaining participants at endline		
	Treatment N=118	Control N=125	Mean difference	Treatment N=32	Control N=50	Mean difference	Treatment N=86	Control N=79	Mean difference
Primary outcome: CBI baseline Mean(SD)	2.11 (0.77)	2.09 (0.83)	0.02 (ES = 0.025)	2.13 (0.74)	1.98 (0.89)	0.15 (ES =0.18)	2.19 (0.80)	2.13 (0.76)	0.06 (ES=0.076)
SPANE Baseline Mean(SD)	3.17 (0.35)	3.24 (0.36)	0.07 (ES=0.19)	3.18 (0.35)	3.24 (0.37)	0.06 (ES=0.16)	3.17 (0.35)	3.23 (0.35)	0.06 ES=(0.17)
Social Support Mean(SD)	3.77 (1.11)	3.80 (1.26)	0.03 (ES=0.02)	3.71 (1.09)	3.69 (1.37)	0.02 (ES=0.01)	3.84 (1.14)	3.90 (1.15)	0.06 (ES=0.052)
Belongingness Mean(SD)	1.89 (0.9)	1.79 (0.87)	0.1 (ES=0.11)	1.93 (0.92)	1.70 (0.95)	0.23 (ES=0.25)	1.84 (0.88)	1.88 (0.79)	0.04 (ES=0.047)
Connectedness Mean(SD)	1.42 (0.79)	1.33 (076)	0.09 (ES=0.11)	1.42 (0.82)	1.34 (0.79)	0.08 (ES=0.09)	1.42 (0.77)	1.32 (0.82)	0.1 (ES=0.12)
Life Satisfaction Mean(SD)	6.13 (1.85)	6.43 (1.76)	0.3 (ES=0.16)	6.07 (1.81)	6.46 (1.50)	0.39 (ES=0.23)	6.20 (1.9)	6.40 (1.97)	0.20 (ES=0.11)
Worthwhileness Mean(SD)	6.92 (1.92)	7.13 (1.74)	0.21 (ES=0.11)	6.83 (2.07)	7.12 (1.70)	0.29 (ES= 0.15)	7.01 (1.74)	7.14 (1.79)	0.13 (0.073)
Gender % (N)	71.1% (84)	69.6 (87)	1.5%points	96% (31)	91% (45)	5%points	61.6% (53)	56% (42)	5.6%points

Missing data

In line with CHI's guidance, we conducted an analysis of the patterns of missingness in the data. First, we looked for missingness in the outcomes, which mostly occurred due to attrition in our sample. We regressed a missingness indicator for each outcome on treatment status; our demographic variables, and the baseline level of that outcome measure. For all outcome measures, there was no significant relationship between missingness and treatment status at either baseline or midline. This aligns with what we found in the above section on balance. For no outcome there was a significant relationship between baseline levels of that outcome measure and missingness of that outcome measure, at either baseline or midline. There was a significant relationship between missingness of the worthwhileness outcome and participants' gender - however, we note that this is one of a large number of tests for missingness.

On the basis of these findings, we believe that a complete case analysis is likely to be unbiased. Nonetheless, we conducted sensitivity analyses of our main results.

Analytical strategy

Following the analytical strategy laid out in our trial protocol[6], we conducted regression analysis to identify the impact of the intervention on outcome measures of interest. This is conducted as an autoregressive model, in which the outcome is regressed on its past values and participants' treatment status, as well as a vector of participant characteristics (the decision to use an autoregressive model is discussed in the section on deviations from the protocol, below). We made use of null imputation of baseline surveys where these were missing but where participants have completed endline or midline data. For simplicity, we present our main findings in graphical format. Results are expressed in a standardised effect size (d), specifically Glass's Delta, which scales effect sizes relative to the standard deviation of the outcome in the control group.

Results

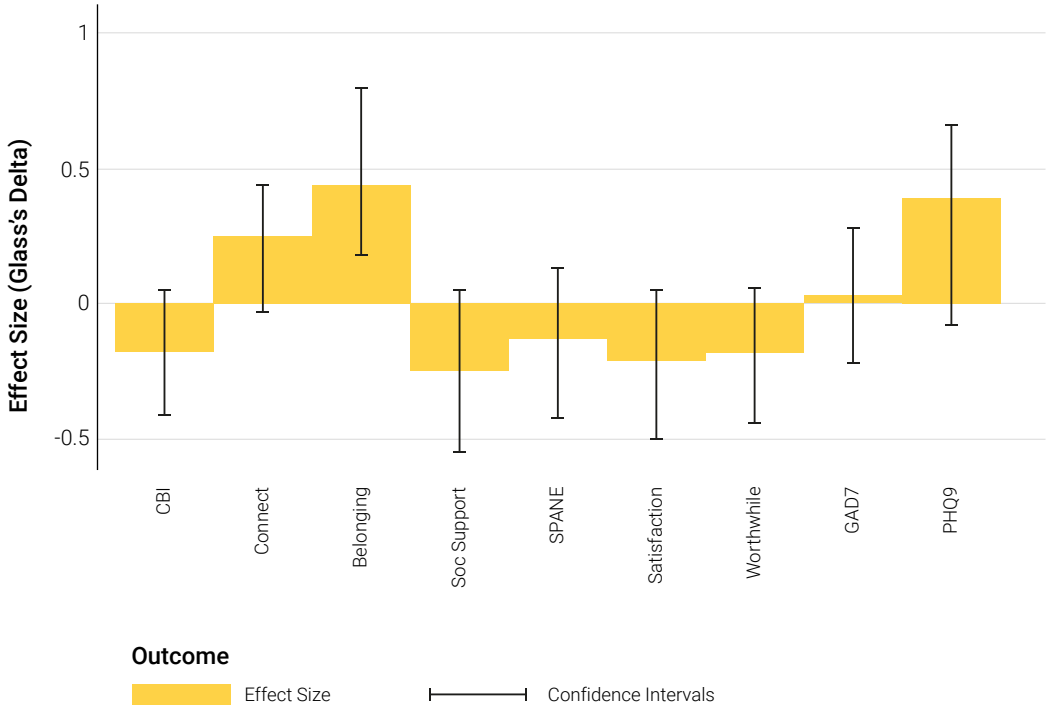
Summary of results

The results of our main analyses are summarised in the table below. In addition, endline results can be seen summarised in Figure 2.

Table 4. Summary of results.

	Measure	Midline (6 weeks)	Endline (24 weeks)
Primary	Copenhagen Burnout Inventory	Small - Positive d = -0.12 (CI= -0.30 to 0.06, p=0.2)	Small - Positive d= -0.18 (CI = -0.41 to 0.05, p=0.15)
Secondary	Connectedness	Moderate - Positive d=0.26, (CI=-0.048 to 0.55, p=0.09)	Moderate - Positive d=0.24 (CI= -0.049 to 0.56, p=0.1)
	Belonging	Moderate - Positive d=0.22 (CI= -0.1 to 0.575, p=0.18)	Moderate - Positive d=0.45 (CI =0.17 to 0.74, p<0.01)
	Social Support	Negligible – Negative d=-0.068 (CI =-0.18 to 0.065, p=0.34).	Moderate - Negative (d=-0.23 (CI= -0.53 to 0.054, p=0.11)
	Scale of Positive and Negative Experiences	Small - Negative d=-0.13 (CI= -0.39 to 0.13, p=0.36)	Small - Negative d=-0.15 (CI = -0.44 to 0.15, p = 0.32)
	Life satisfaction	Negligible - Positive d=0.05 (CI= -0.18 to 0.29, p =0.68)	Moderate - Negative d=-0.19 (CI = -0.46 to 0.05, p=0.13)
	Life worthwhile	Moderate - Positive d=0.2 (CI = -0.16 to 0.56, p=0.08)	Moderate - Negative d=-0.16 (CI= -0.89 to 0.22, p = 0.25)
Exploratory	General Anxiety Disorder	Negligible - Negative d= 0.014 (CI = - 0.08 to 0.097, p = 0.89)	Negligible - Negative d=0.05 (CI = -0.21 to 0.32, p=0.67)
	Patient Health Questionnaire	Small - Negative d=0.12 (CI = -0.11 to 0.34, p =0.30)	Moderate - Negative d=0.24 (CI = -0.11 to 0.67, p =0.075)

Figure 2. Effect sizes of endline (24 weeks) outcomes, based on outcomes from regression analysis.



Copenhagen Burnout Inventory

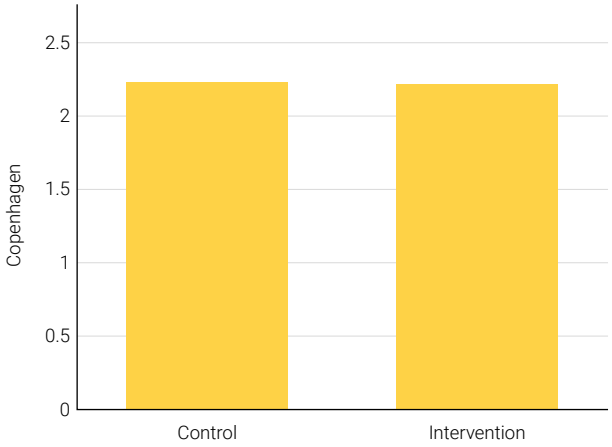
Midline

Our prespecified primary outcome measure is the Copenhagen Burnout Inventory. At midline, the magnitude of differences between treatment and control was qualitatively fairly small (d = - 0.12, CI= -0.30 to 0.06), but was in the right direction - that is, participants in the treatment group experienced less burnout than those in the control group. However, we found no statistically significant impacts (p=0.25) on this measure in our primary analysis at midline, and this is robust to different regression specifications.

Endline

At endline, we also found again a consistently small effect (-d=0.188, p=0.147, CI= -0.41 to 0.05), which was in the right direction (shown in Figure 3)- that is, participants in the treatment group experienced less burnout than those in the control group. This is marginally larger in magnitude than at midline. However, we found no statistically significant impacts (p=0.15) on this measure in our primary analysis at endline, and this is robust to specification.

Figure 3. Mean group differences for CBI total score at endline. Statistical analysis revealed a small positive difference..



Connectedness, belonging and social support

Next, we evaluated the impacts on the intermediate outcomes - those that lie between the intervention and impacts on the downstream outcomes. These were people's sense of connectedness to others; their sense of belonging at work; and their level of social support at work.

Midline

We found modestly sized impacts on connectedness (d=0.26, p=0.09, CI=-0.048 to 0.55) and belonging (d=0.22, p=0.18, CI = -0.1 to 0.575) at midline, with the intervention increasing both of these outcomes (Figures 4). Interestingly we do not see similar effects on social support (Figure 5), despite this being arguably the primary anticipated mechanism (d=-0.068, p=0.34, CI= -0.18 to 0.065).

Figure 4. Mean group differences in connection (left) and belonging (right) outcomes.

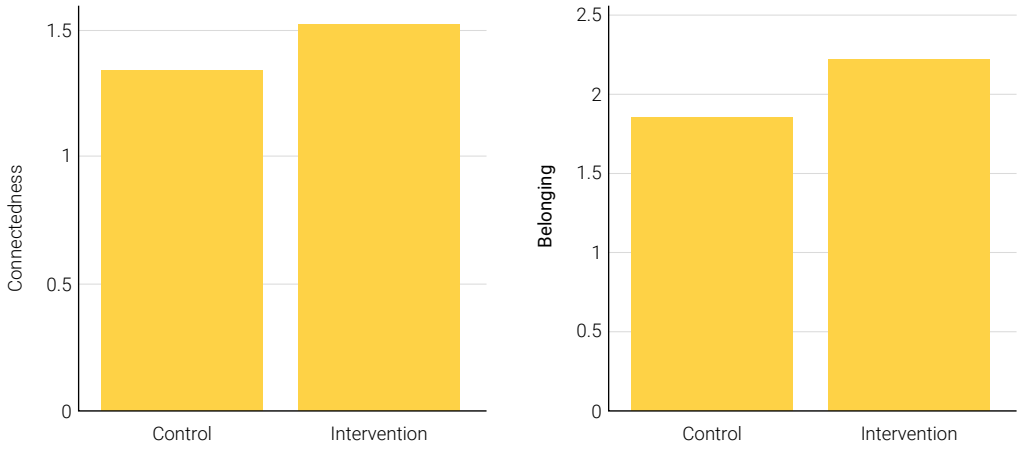
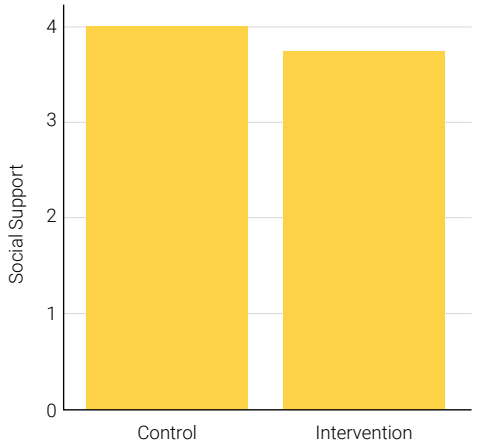


Figure 5. Mean group differences in social support.



Endline

At endline, we found a moderate increase in belonging (d=0.45, p<0.01, CI= 0.17 to 0.74), and a moderate sized impact on connectedness (d=0.24, p=0.1, CI= -0.049 to 0.56). However, we see a decline in participants' feelings of social support (d=-0.23, p=0.11, CI= -0.53 to 0.054), which is of equivalent size to the increase in feelings of connectedness.

Figure 6. Mean group differences in belonging and connectedness. Belonging score (on the left) was significantly higher in the intervention group compared to control.

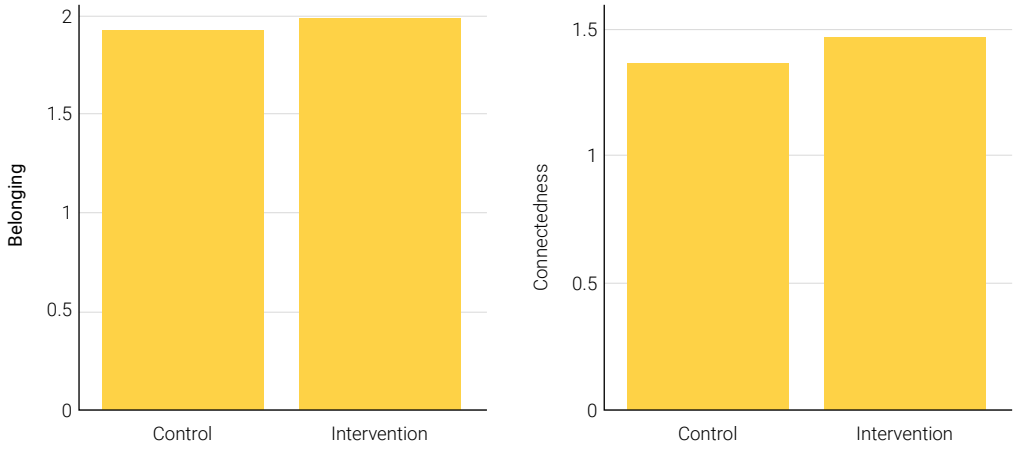
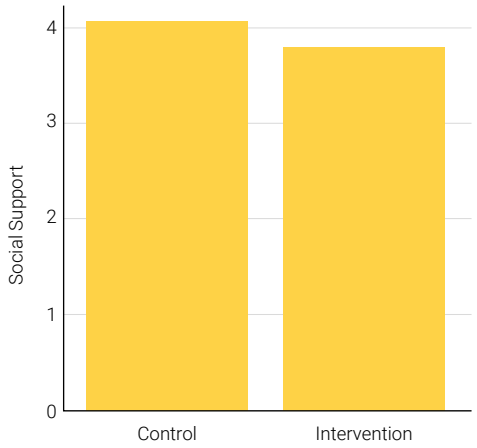


Figure 7. Mean group differences in social support. Social support scores were found to be lower in the treatment group.



Subjective wellbeing

We next considered measures of participants' subjective wellbeing. These were the Scale of Positive and Negative Experiences (SPANE); life satisfaction and worthwhileness.

Midline

At midline, we saw small changes in the SPANE measure (d=0.13, p=0.36, CI= -0.39 to 0.13), and negligible differences in life satisfaction (d=0.05, p =0.68, CI= -0.18 to 0.29). We also observed moderately sized differences in worthwhileness (d=0.2, p=0.08, CI = -0.16 to 0.56).

Figure 8. Mean group differences in SPANE and life satisfaction measures. Statistical analysis found no significant differences at conventional levels.

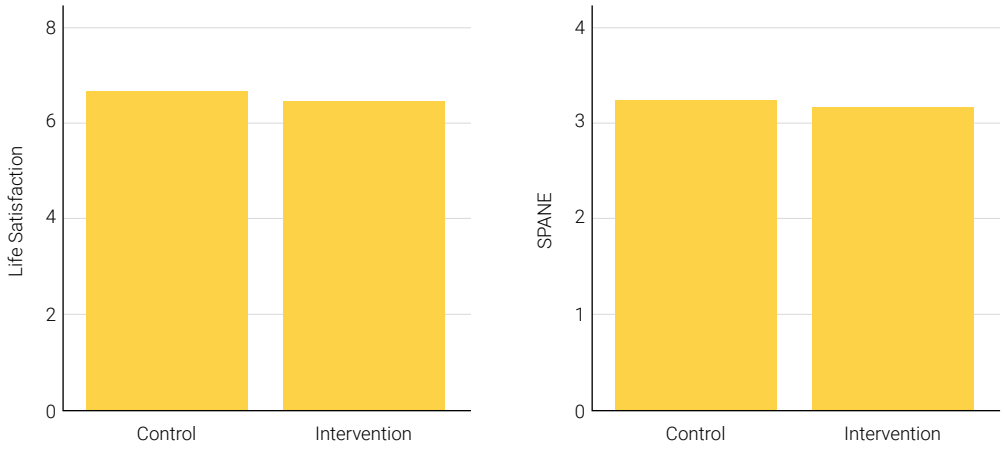
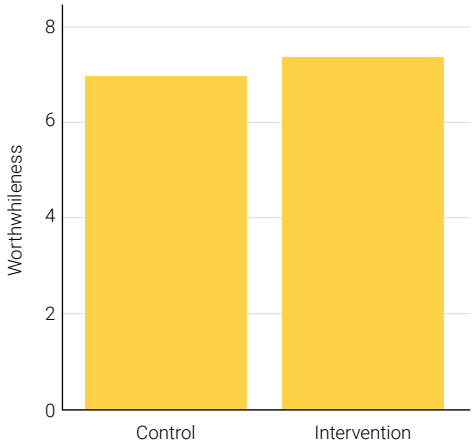


Figure 9. Mean group differences in worthwhileness. Statistical analysis found no significant differences at conventional levels.



Endline

At endline, we saw a small decline in SPANE scores (d=-0.15, p = 0.32, CI = -0.44 to 0.15), and similarly sized declines in life satisfaction (d=-0.193, p=0.13, CI= -0.46 to 0.05) and worthwhileness (d=-0.16, p = 0.25, CI= -0.89 to 0.22).

Figure 10. Mean group differences in SPANE and life satisfaction measures. Statistical analysis found no significant differences at conventional levels.

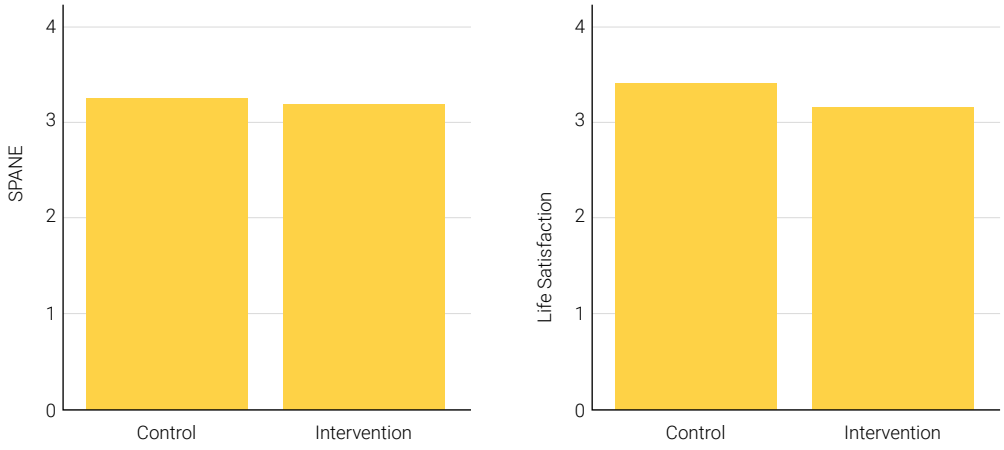
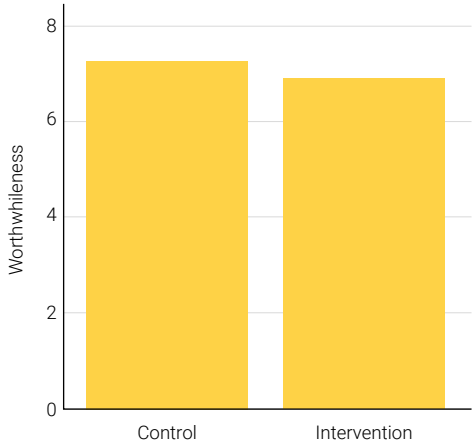


Figure 11. Mean group differences in worthwhileness. Statistical analysis found no significant differences at conventional levels.



Mental health

In addition to these outcomes, we also looked at mental health outcomes - in particular the GAD7 and PHQ9 scores which measure anxiety and depression. These are clinical tests, used to identify whether someone passes a threshold which would make them diagnosable, or eligible for particular forms of mental health support.

Midline

We found no effects on mental health metrics at midline (GAD7, d = 0.014, p = 0.89, CI = - 0.08 to- 0.097 and PHQ9, d = 0.12, p =0.30, CI = -0.11 to 0.34), however the direction of the effects was positive, which is not the desired direction for effects.

Endline

We found a moderately sized difference in scores for PHQ (d=0.24, p = 0.075, CI= 0.11 to 0.67), but negligible differences for GAD score (d=0.05, p = 0.67, CI = -0.205 to 0.316) at endline, however the direction of the effects was positive, which is not the desired direction for effects.

Sensitivity analysis

Given the amount of attrition in our study, it was prudent to carry out sensitivity analyses. These analyses were not specified in our trial protocol. In specific, we conducted four versions of our analysis - Complete Case (that is, only participants who completed both endline and baseline); Endline only (that is, all participants who completed the endline survey, without controlling for baseline); Null Imputation (Baseline values for participants who completed endline but no baseline are null imputed); and Null Imputation with covariates (this is our main analysis). These analyses, although not pre-specified, allowed us to increase our level of surety about the robustness of the findings in the presence of high levels of attrition.

Across these four analyses, we did not find meaningful differences in results compared to our main findings. Only one outcome, GAD7, changed sign across these analyses, being negative for complete case analyses and positive for all other analyses. However, the associated confidence intervals were in some cases wide, and the p-value associated with all findings was around 0.8. None of our findings changed point estimates on the effect size by more than 0.1SD as a consequence of these changes in analysis, and none changed significance across the 0.05, 0.1, or 0.2 thresholds.

Deviations from protocol

There are a number of deviations from protocol that emerged during the analysis stage. First, because of the extent of attrition, a difference in differences model was rejected and the autoregressive model (model 2 in the paper), was conducted as our main analysis. Second, we did not make corrections for multiple comparisons as specified in the protocol, because this approach is intended to adjust the binary assessment of statistical significance, by adjusting the threshold for significance in the presence of multiple tests. Given that CHI's guidance for statistical analysis does not make use of this binary threshold, and this is not how we have interpreted our results, this was not appropriate in this instance. Substantively, this would not alter our interpretations in any case as few results clear the 0.05 threshold for statistical significance. Finally, we have not conducted subgroup analysis, due to a combination of the small sample size and the missingness of demographic characteristics for many participants.

Implementation and process evaluation

In addition to evaluating the impact of the present intervention, an implementation and process evaluation (IPE) was conducted to evaluate project fidelity and to gain richer insight into the participant experience, how they chose to engage with the different research elements over time and how those assigned to the treatment perceived the intervention. To this aim, both participants and implementation leads were interviewed.

Data collection

Participants

Potential participant interviewees were identified randomly from the entire pool of participants who had received the endline survey and thereby completed the trial. Potential interviewees were approached by SMITFC implementation leads on an iterative basis and offered a £20 digital voucher as compensation for their time. Seven frontline workers from different homelessness charities in the country agreed to volunteer, five of which had formed part of the RCT's intervention group and two of which had been part of the control group. Interviews lasted 30 minutes, were semi-structured, and contained open-ended questions covering various aspects of the research experience: experience with the sign-up process, weekly stories (intervention only), surveys, and any additional feedback. Interviews were conducted virtually using Microsoft Teams software, recorded and later used to obtain verbatim transcripts for data analysis. All participants were sent an information sheet and written consent form prior to the interview.

Implementation leads

Additionally, both SMITFC implementation leads were interviewed to gain insight into various aspects of the trial implementation, including recruitment, message delivery, participant engagement, and overall effectiveness. These interviews were scheduled for 40 minutes and while the consent and data collection process closely followed the steps outlined above, no additional compensation was offered to implementation leads.

Ethics and reflexivity

Albeit no unusual ethical concerns were to be expected, prior research suggested that the interviewing process and questions concerning participants' wellbeing could potentially stir up negative emotions concerning frontline workers' stress levels. Thus,

it was made clear that participants were to choose freely which information they were comfortable sharing and that withdrawal from the study at any time would not yield any repercussions. Additionally, confidentiality and data protection concerns were addressed and prompts posed by the interviewer were designed not to be intrusive.

In addition to this, it is important to note that the researcher conducting the IPE was familiar with both implementation leads. Members of the research team and colleagues from SMITFC had worked closely together over most of the trial duration, posing a risk of compromised researcher objectivity[7]. To mitigate this, the critical reflection of the researcher's own assumptions was consequently made a priority across all stages of the process[8]. Still, some reactivity effects are likely to be reflected in the present findings.

Qualitative data analysis

Thematic analysis was the chosen method of data analysis, following Braun & Clarke's (2006) six-step approach. Verbatim transcripts were analysed using a hybrid approach of inductive and deductive coding. First, latent codes were derived from verbatim transcripts based on the sub-themes structuring the previously prepared topic guides using N.Vivo 14 Software. Following this, data was also analysed from the bottom-up which resulted in a number of semantic codes reflecting experiences and thoughts shared by participants themselves[9].

The identified codes were given provisional definitions and further analysed in a reiterative process, closely following Braun and Clarke's[10] guide on thematic analysis. The language used to describe emerging categories was adopted from Attride-Sterling's (2001) work on thematic network analysis[11]. Accordingly, initial codes were continuously reduced and refined which resulted in the manifestation of eight basic themes. These condensed themes were then clustered into organising themes which are presented in the following.

Findings

Reflections from implementation leads

First, we present the findings from interviewing SMITFC implementation leads. These interviews focused on the trial implementation and fidelity.

Project successes

Implementation leads perceived the project as a success, highlighting positive outcomes such as achieving recruitment targets and perceived satisfactory completion rates. One participant remarked that the survey completion rates were *"reasonably good"* and the project's complexity was well managed: *"We did, in the end, manage to recruit all the participants […] we had wanted […] and we managed a quite complex*

project." The role of acting as a delivery partner was discussed, with one lead reflecting that it was *"rewarding"* despite the challenges involved. Initially, email recruitment felt uncomfortable, but it ultimately proved effective, with one lead acknowledging that it was *"the thing that worked."*

Once the project was operational, both leads felt well supported by the consortium, with one noting they felt able to raise any issues once the project had gained focus. Despite early concerns, internal buy-in increased as the project progressed. Leads reflected that, as they started sharing and reviewing stories, the remaining SMITFC team became more engaged, with one lead commenting that stories were perceived as *"really interesting"* which resonated well. This led to internal reflection, with one lead noting that the team was *"thinking about how [they] could incorporate that a bit more into [their] own messaging."* They pointed out that the team was discussing how to improve the use of email as a method for promoting their own work.

Project challenges

Implementation leads equally highlighted challenges occurring throughout the project. One key issue was the significant amount of administrative work involved in setting up the project, managing recruitment, implementing the intervention, and distributing vouchers. In addition, some tasks had to be done manually, such as ensuring that participants who appeared on multiple mailing lists did not receive duplicate emails. As one lead noted, *"I think we knew it would be a fair amount of admin, but we perhaps even underestimated that because yes, it was a lot."* Related to this, there was also concern about the volume of emails being sent, particularly regarding the potential negative impact on already busy frontline workers. As one lead noted, *"[We] started to worry [the treatment emails] might have a negative effect on people's wellbeing because e-mails are quite stressful and add to workload."*

Adhering to project fidelity and meeting the recruitment target were early concerns, as the research trial's structured approach was more limiting compared to the usual responsive work style of the organisation. One lead explained, *"We normally work in a quite responsive way to things […] obviously with a randomised control trial once you've decided how you're going to do it, then there's very little room to do it differently."* Refining certain aspects of the project, such as the wording in the research invitation, was still necessary. One lead suggested, *"What should we have done differently [from the start]? I think being a little bit clearer about the fact that people were taking part in an intervention that we hoped would improve their wellbeing rather than they were being asked to share their ideas about wellbeing."* Although automation was maximised, there was still room for human error. Specifically, the last of the six stories was mistakenly shared at the bottom of the control group's midline survey email. This issue was quickly communicated and rectified and it affected only the first four groups of participants randomised. Other than this, the intervention was delivered smoothly.

Lastly, turnover among team members throughout the project caused initial confusion regarding roles and responsibilities, but it was pointed out that this improved as the trial progressed, and did not affect the delivery of the intervention.

Mitigation strategies

Despite the challenges faced, they were effectively addressed throughout the project. Revisions to the recruitment emails were made to clarify the purpose of the research. As one lead explained, *"I think we changed [the wording of the recruitment campaign] towards the end to make it a bit clearer. The wording at the beginning was if you want to be involved in improving frontline worker wellbeing, then sign up to get involved in this research project. And I think that might have led people to believe that they were being asked to share ideas about wellbeing rather than trial and intervention."* In addition, shared stories were checked for appropriate wording before publication: *"We wanted to make sure that the content was appropriate."*, although in practice, all stories were deemed appropriate.

Alternative recruitment strategies, such as social media, were tested to reduce the number of emails sent to frontline workers, though they ultimately proved less effective. One lead noted, *"I don't think that had a big impact. […] for two weeks […] there were only two people that signed up and that was at the point that we'd stopped sending emails out. As soon as we sent out another e-mail, we got another 50 people."* In order to meet the recruitment target, the decision was made to extend recruitment to additional cohorts, which proved successful: *"Because we thought we'd exhausted all our channels, so we didn't quite get as many as we thought. But by adding the extra cohorts, we got just enough I think."*

To improve efficiency, everything that could be automated or pre-set up was implemented - this included sending intervention emails to each cohort of participants, as well as the emails about surveys and reminders. As one lead explained, *"If it's automated, then it means that [...] it can be scheduled. And so it can just happen and run. Every time there needs to be a human that has to make a decision on something, [it] uses up a lot of time."*

Reflections from participants

This section presents the findings from the participant interviews conducted as part of the implementation and process evaluation. These interviews provide a deeper understanding of participants' motivations for engaging in the project, their experiences with the intervention, and the factors that influenced their ongoing participation throughout the study.

Motivations for participation in the project

When asked about their motivations for participating in the project, both treatment and control participants highlighted a shared desire to support the community of frontline workers. One participant explained: *"With so many of us working on the frontline, maybe it's a good idea to see where we're all at and why not contribute to something that might be helpful in the future?"* The precarious nature of the sector, characterised by high burnout rates, was a common concern among participants, with many either directly affected by stress and burnout or having witnessed colleagues experiencing it. As one participant shared: *"We had a team member who had been working in the sector for probably nine years or so […]. She still works in our team, but in a non-client-facing role just because it started to get to be too much […]. I like to think a lot about […] was that inevitable? [Do] you only have […] so much gas in you? […] Are there ways of preventing that kind of […] burnout because […] it means we lose really good people who are really good and knowledgeable and have a lot of expertise just because it becomes too much."* This reflection underlines the widespread concern about burnout in the sector and the motivation to participate in the study in the hope of finding solutions. However, one participant expressed a desire for more clarity on the purpose of the study, suggesting that further explanation would have been helpful to stay motivated: *"Probably a little bit more […] explanation of who's commissioning? Why? You know, obviously I knew, and [we] were pre-warned 'Would you like to take part?' […] Yeah, just a bit more of an explanation of what it is that it's trying to do and how it may benefit [workers]."* This indicates that while participants were motivated to contribute, some felt the need for more transparency regarding the study's objectives and potential outcomes.

In terms of incentives, the digital vouchers were generally appreciated, though most participants had not been aware of them prior to completing the follow-up surveys and had been pleasantly surprised to receive them. One participant noted: *"I got it through, and it was like, 'Oh, that's nice!'"* Another stated: "*I would have done the survey anyway regardless."* This suggests that, for many participants, the intrinsic motivation to support the study and their community took precedence over the incentive itself. Nonetheless, the voucher was still seen as a positive bonus for those who received it.

Factors influencing survey participation

Participants reported being aware that completing surveys was part of their involvement in the research. While three surveys were sent to them (one at baseline, one 6 weeks post-randomisation, and another 24 weeks post-randomisation) regardless of their group allocation, interviewed participants indicated to have completed at least one or two. However, most did not recall how many there would be to complete in total. As one participant explained: *"I hadn't kept in mind how many times you would be doing the survey and how often. I kind of got a bit confused as to 'Is this a reminder or is this one of the other surveys I need to do?'"* This highlights that participants found it difficult to track their progress, especially when receiving multiple reminders for surveys they may have already completed. Nevertheless, participants

appreciated the simplicity and accessibility of the surveys, which were perceived as straightforward and not time-consuming. One participant noted, *"It was user-friendly in that kind of way. So it didn't feel like it was a huge commitment or anything like that."* *Similarly, another participant shared that the surveys were quick to complete: "They were quite quick to fill in as well."* This feedback suggests that the design of the surveys contributed positively to participation, with respondents feeling they could engage without it being a burdensome task.

Importantly, the amount of workload participants faced had a significant impact on their ability to complete surveys as workload and stress levels were mainly cited as factors that influenced survey engagement. One participant explained how having a lighter caseload allowed them more time to engage with the surveys: *"I think it would depend on how big your caseload might be. Mine […] was actually under, I didn't have my full caseload, so I had the time."* On the other hand, a participant reflecting on the unpredictability of their workday noted: *"There's always going to be some element of stress because you're[…] in a completely reactive situation. [You] don't know what you're going to face each day. [You] can have your To-Do List, you can arrange what you're going to be planning for that day, but that can change in an instant, so you never know […] what you're going to be dealing with."* This insight illustrates that high levels of stress and workload unpredictability could hinder participants' ability to prioritise survey completion.

Factors influencing engagement with the intervention

Participants who engaged with the stories generally found them relatable to their frontline experiences. As one participant shared: *"What I read was good and a lot of 'oh yeah, I can relate to that.'"* Another noted, *"It's a very useful thing and we can see how other people are feeling and we can understand that there is someone to listen to us."* These responses suggest that the stories provided a sense of connection and validation. However, when asked if the stories had an impact on their wellbeing, most participants indicated that the effect was limited to the feeling of being listened to, without extending to broader improvements in their wellbeing. As one participant explained, *"My tenants and whatever's happening at the office has got a lot more influence than those."*

Similarly to survey completions, workload played a significant role in how much participants engaged with the stories. Many admitted to only skimming the stories rather than reading them in detail. One participant noted, *"I skimmed most of them, so I didn't really read in detail [...] and it depended on what was going on that week [...]"* Another participant shared, *"I think I probably didn't read the stories, to be honest. I did get them, but I didn't read them."* A further participant mentioned they were unaware of having received stories: *"I don't think I did, or if I did, I'm not actually sure I received them."* As this was later checked, the participant did receive the messages but either did not read them or was unable to remember that they had. These responses highlight how workload pressures hindered the participants' ability to consistently engage with

the content. Despite these challenges, the frequency of the stories—once a week—was viewed positively by most participants, as it aligned with their available time to engage. One participant commented: *"I think the fact that it was once a week meant that I probably read slightly more?"* Additionally, email was the preferred medium for delivery for most participants: *"[...] I prefer receiving [the stories] by email because it's not something that requires a response."* However, the role of workload was again noted, with some participants mentioning that there were days when they were able to read the stories, and others when they simply filed them away: *"I do know there have definitely been days when I was like, 'oh, nice,' and I'd read a bit, and other days were like 'automatic put into newsletter folder.'"* One participant also raised an issue with receiving emails on their work phone, suggesting that text messages might have been a better alternative in their case: *"[text messages] can be very handy [...]. Because at the moment on my work phone, we don't have the facilities to receive emails [...]"*. This highlights a potential barrier to engagement, where the same medium of delivery may not always be accessible to all participants throughout their often busy days out serving clients.

Evaluating delivery and engagement

The above IPE findings suggest that several implementation challenges, including high participant workloads, confusion around study communications, and limited engagement with intervention materials, may have dampened the potential impact of the intervention. Despite the discussed challenges, fidelity was largely maintained with deviations from the protocol collectively agreed where needed amidst closure of the WWCW and staff changes within the research consortium. While participants found the concept meaningful, inconsistent engagement with key components (such as the weekly stories) and varying levels of understanding around the study's purpose likely influenced the strength of observed effects in the impact evaluation. These factors should be considered when interpreting the results and in planning future interventions of a similar nature.

Discussion

The IPE revealed both successes and challenges in the trial's execution. The project successfully met recruitment targets, despite initial concerns, and the intervention's complexity was overall well-managed. The intervention was delivered as intended although some deviations from the protocol occurred as outlined above. Nonetheless, some deviations regarding incentives, for instance, were necessary to mitigate issues around recruitment and these were all agreed within the consortium.

Across our various outcome measures, we found little evidence of positive effects of the intervention on participants' wellbeing. For our main outcome, the Copenhagen Burnout Inventory, our effects are modest in size (d=0.188), and not statistically significant at the conventional 0.05 level (p=0.147). Interestingly, this small increase in effect size followed the same pattern as in the original Linos et al (2022) study, but the change in effect size was too small to be statistically meaningful. On its own, this may suggest that this study was underpowered.

We did see some encouraging findings on intermediate outcomes, in particular on belongingness, where we saw a statistically significant increase (d=0.45), in people's sense of belonging at work. However, the practical significance of this is unclear, particularly in the context of smaller and more mixed effects on connectedness (positive, d=0.24), and social support (d=-0.23). These were in opposite directions and were not statistically significant, meaning that the belongingness findings should not be leant on too heavily, and that overall the picture cannot be said to be positive.

Elsewhere, effects were consistently in the wrong direction (and not statistically significant) for life satisfaction; worthwhileness; and GAD7 mental health scores. These do not constitute conclusive evidence of harm, but they force us to lean towards an interpretation of the intervention as not having had meaningful effects on outcomes.

Importantly, however, IPE findings suggest that the workload, precarity and unpredictability of the homelessness sector did impact participant engagement. Participants reported that workload pressures often hindered full engagement with both the surveys and the intervention content, which could have impacted the present results.

Overall, the pattern of results between midline and endline was broadly consistent with potential, small positive impacts in the short term, but no benefits in the long term. This does not provide sufficient evidence to conclude the replication of the findings of the original study, and thus to recommend the scale up of this intervention.

Conclusion

This study adds to the emerging evidence base on how to support the wellbeing of frontline workers in the homelessness sector. While the intervention was delivered with reasonable fidelity and generally well-received by participants, the findings suggest limited and inconsistent impact on wellbeing outcomes. These results underscore the need to design support that takes account of the structural realities of frontline roles, including high workloads, sectoral precarity, and limited time for engagement.

Future research should explore the co-design of interventions with frontline staff to enhance relevance and feasibility, and consider more systemic approaches to improving working conditions. Trials with greater statistical power and stronger support for sustained participation may be needed to detect more meaningful effects. Ultimately, improving wellbeing in this workforce may require not only targeted interventions, but also broader organisational and policy-level change.

Appendix

A: Survey

Start of Block: Intro & Consent

Intro

Dear Colleague, Researchers from the London School of Economics are working with St Martin-in-the-Fields Charity and the Centre for Homelessness Impact to support a **research project aimed at understanding the wellbeing of people working in the sector.** Findings from this research will help shape the services and support that we and other organisations in the sector provide. **To understand how you are doing and how these projects are impacting your wellbeing, we kindly ask you to complete this short survey (even if you may not have participated in any activity yet or recently).** It will take you no more than 5 to 10 minutes. This survey will form the basis of a **scientific research project** mentioned above that the London School of Economics is working on, jointly with Centre for Homelessness Impact and St Martin-in-the-Fields Charity. Your answers, which will be kept strictly confidential and anonymised, are invaluable to us and our research project. We are very grateful for your time.

Consent

This is a study that aims to understand the wellbeing at work of people working in the homelessness sector. If you sign up, you will be asked to complete three surveys over the course of the next six months, and you may be sent other emails relating to your wellbeing.

Before we begin the survey, we need to ask for your permission to collect, store, and analyse the data that you provide. We will do so in a way that ensures the confidentiality of what you tell us and that complies with the UK Data Protection Act. Please review the statements below, and tick the boxes to confirm that you agree.

☒ I confirm that I have opted into this survey and am aware that the data I provide will be used by St Martin-in-the-Fields Charity and the London School of Economics for a research study on frontline workers (1)

☒ I confirm that I am happy to receive a maximum of one email per week about my wellbeing at work over the course of the next two months. (2)

☒ I understand that my participation is voluntary and that I am free to withdraw at any time and that all information I give is strictly confidential and anonymised. At withdrawal, all data will be permanently deleted. (3)

End of Block: Intro & Consent

Start of Block: Subjective Wellbeing

satisfaction_life Overall, how satisfied are you with your life nowadays?

0	1	2	3	4	5	6	7	8	9	10
Not at all										Completely

worthwhileness_life Overall, to what extent do you feel that the things you do in your life are worthwhile?

0	1	2	3	4	5	6	7	8	9	10
Not at all										Completely

affect Please think about what you have been doing and experiencing at work during the past four weeks. Then report how much you experienced each of the following feelings, using the scale below.

	Very rarely or never (1)	Rarely (2)	Sometimes (3)	Often (4)	Very often or always (5)
Positive (1)					
Bad (2)					
Negative (3)					
Unpleasant (4)					
Good (6)					
Pleasant (7)					

End of Block: Subjective Wellbeing

Start of Block: Mental health

phq9 Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
Little interest or pleasure in doing things (1)	◯	◯	◯	◯
Feeling down, depressed or hopeless (2)	◯	◯	◯	◯
Trouble falling asleep, staying asleep, or sleeping too much (3)	◯	◯	◯	◯
Feeling tired or having little energy (4)	◯	◯	◯	◯
Poor appetite or overeating (7)	◯	◯	◯	◯
Feeling bad about yourself – or that you're a failure or have let yourself or your family down (8)	◯	◯	◯	◯
Trouble concentrating on things, such as reading the newspaper or watching television (9)	◯	◯	◯	◯

	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
Moving or speaking so slowly that other people could have noticed. Or, the opposite – being so fidgety or restless that you have been moving around a lot more than usual (10)	◯	◯	◯	◯
Thoughts that you would be better off dead or of hurting yourself in some way (11)	◯	◯	◯	◯

gad7 Over the last 2 weeks, how often have you been bothered by the following problems?

	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
Feeling nervous, anxious or on edge (1)	◯	◯	◯	◯
Not being able to stop or control worrying (2)	◯	◯	◯	◯
Worrying too much about different things (3)	◯	◯	◯	◯

	Not at all (1)	Several days (2)	More than half the days (3)	Nearly every day (4)
Trouble relaxing (4)	◯	◯	◯	◯
Being so restless that it is hard to sit still (5)	◯	◯	◯	◯
Becoming easily annoyed or irritable (7)	◯	◯	◯	◯
Feeling afraid as if something awful might happen (8)	◯	◯	◯	◯

End of Block: Mental health

Start of Block: Burnout

cbi_personal Please think about your experience during the past four weeks. Then, indicate your agreement with each of the following statements, using the scale below.

	Never or almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Always (5)
How often do you feel tired? (1)	◯	◯	◯	◯	◯
How often are you physically exhausted? (2)	◯	◯	◯	◯	◯
How often are you emotionally exhausted? (3)	◯	◯	◯	◯	◯
How often do you think: ”I can’t take it anymore”? (4)	◯	◯	◯	◯	◯

	Never or almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Always (5)
How often do you feel worn out? (5)	○	○	○	○	○
How often do you feel weak and susceptible to illness? (7)	○	○	○	○	○

cbi_work_a Please think about your experience at work during the past four weeks. Then, indicate your agreement with each of the following statements, using the scale below.

	Never or almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Always (5)
Do you feel worn out at the end of the working day? (1)	○	○	○	○	○
Are you exhausted in the morning at the thought of another day at work? (2)	○	○	○	○	○
Do you feel that every working hour is tiring for you? (3)	○	○	○	○	○
Do you have enough energy for family and friends during leisure time? (4)	○	○	○	○	○

cbi_work_b Please think about your experience at work during the past four weeks. Then, indicate your agreement with each of the following statements, using the scale below.

	To a very low degree (1)	To a low degree (2)	Somewhat (3)	To a high degree (4)	To a very high degree (5)
Is your work emotionally exhausting? (1)	○	○	○	○	○
Does your work frustrate you? (2)	○	○	○	○	○
Do you feel burnt out because of your work? (3)	○	○	○	○	○

cbi_client_a Please think about your experience at work during the past four weeks. Then, indicate your agreement with each of the following statements, using the scale below.

	To a very low degree (1)	To a low degree (2)	Somewhat (4)	To a high degree (5)	To a very high degree (6)
Do you find it hard to work with clients? (1)	○	○	○	○	○
Does it drain your energy to work with clients? (2)	○	○	○	○	○
Do you find it frustrating to work with clients? (3)	○	○	○	○	○

	To a very low degree (1)	To a low degree (2)	Somewhat (4)	To a high degree (5)	To a very high degree (6)
Do you feel that you give more than you get back when you work with clients? (4)	○	○	○	○	○

cbi_client_b Please think about your experience at work during the past four weeks. Then, indicate your agreement with each of the following statements, using the scale below.

	Never or almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Always (5)
Are you tired of working with clients? (1)	○	○	○	○	○
Do you sometimes wonder how long you will be able to continue working with clients? (2)	○	○	○	○	○

sickness How many days have you been absent from work due to sickness/illness during the past year? For example, please enter the number "5" if you have had five sickness absence days in total during the past twelve months.

leave How many days of annual leave (holiday days) have you taken during the past six months? For example, please enter the number "4" if you have had four days in total of leave during the past six months.

End of Block: Burnout

Start of Block: Mechanisms

prof_identification Please state how much you agree or disagree with the following statements using a scale from 1 (“Strongly disagree”) to 7 (“Strongly agree”):

	1 - Strongly disagree (1)	2 (2)	3 (3)	4 (4)	5 (5)	6 (6)	7 - Strongly agree (7)
I feel I have a lot in common with others in my profession or occupation (1)	○	○	○	○	○	○	○
I find it easy to identify with my profession/ occupation (2)	○	○	○	○	○	○	○
I view the problems of my profession as my problems (3)	○	○	○	○	○	○	○
My values and the values of my profession are very similar (4)	○	○	○	○	○	○	○

soc_support To what extent do you feel you have work colleagues that you can count on to help you whenever you are in trouble or need them?

○	○	○	○	○
Never or almost never (1)	Seldom (2)	Sometimes (3)	Often (4)	Always (5)

belonging How strongly do

you feel you belong to your workplace?

Very strongly (1)	Fairly strongly (2)	Not very strongly (3)	Not at all strongly (4)

connectedness How often do you chat to people in your workplace, more than just say hello?

On most days (1)	Once or twice a week (2)	Once or twice a month (3)	Less than once a month (4)	Never (5)

End of Block: Mechanisms

Start of Block: Demographics

age How old are you?

Under 16 (1)	16 to 24 (2)	25 to 34 (3)	35 to 44 (4)	45 to 54 (5)
55 to 64 (6)	75 to 84 (8)	Prefer not to say (-1)	**gender** **What is your**	**gender?**
65 to 74 (7)	85 or over (9)			Male (1)
				Female (2)
Non-binary (3)	(-1)	**What is your marital status?**		Single (1)
Prefer not to say	**marital_status**			

Married, in civil partnership, or living with partner (2)	Separated, but still legally married or in civil partnership	Divorced (4)	Widowed (5)	Prefer not to say (-1)	**children** **How many children aged under 16 currently live in your household?**
		(3)			

0 (1)

○ 1 (2) ○ 2 (3) ○ 3 (4) ○ 4 (5) ○ 5 (6)

○ 6 (7) ○ More than 6 ○ Prefer not to say (-1)

ethnicity

Which one of the following best describes your ethnic group or background?

○ White (1) ○ Mixed / Multiple ethnic groups (2) ○ Asian or Asian British (3) ○ Black or Black British (4) ○ Other ethnic group (5) ○ Prefer not to say (-1)

religion

What is your religion, even if you are not currently practising?

○ No religion (1) ○ Christian (2) ○ Buddhist (3) ○ Hindu (4) ○ Jewish (5)

○ Muslim (6) ○ Sikh (7) ○ Any other religion (8) ○ Prefer not to say (-1)

education

What is the highest educational or work-related qualification you have?

○ Degree (1) ○ Other higher degree (2) ○ A-level etc. (3) ○ GCSE etc. (4)

○ Other qualification (5) ○ No qualification (6) ○ Don't know (7) ○ Prefer not to say (-1)

working_status

What is your current working status?

○ Working full time (30 or more hours per week) (1) ○ Working part time (8-29 hours a week) (2) ○ Working part time (Less than 8 hours a week) (3)

experience For how many years have you worked as a client-facing staff member working with people experiencing homelessness? Please add 0 if not applicable.

End of Block: Demographics

B: Regression Results

As described in the body of the paper, this appendix reports the regression results for our sensitivity analysis. Each table below considers a different outcome measure, and four outputs. The first column of each table is a naive, endline only model without covariates. The second is a model with null imputation of the baseline measures of the outcome. The third is null imputation of both baseline and covariates (our main analysis), and the fourth is the complete cases analysis.

Table B1. Copenhagen Burnout Inventory

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	-0.0904	-0.109	-0.165	-0.193
	[0.140]	[0.0970]	[0.105]	[0.118]
Constant	3.009***	0.474*	-0.0806	2.707***
	[0.0942]	[0.189]	[0.236]	[0.339]
N	165	165	165	122

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B2. Connectedness

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	0.179	0.161	0.187	0.0728
	[0.119]	[0.108]	[0.113]	[0.121]
Constant	1.341***	0.526***	0.179	1.383***
	[0.0701]	[0.147]	[0.157]	[0.291]
N	160	160	160	125

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B3. Belongingness

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	0.327*	0.348**	0.380**	0.365**
	[0.131]	[0.112]	[0.119]	[0.128]
Constant	1.835***	0.659***	0.711**	1.484***
	[0.0818]	[0.154]	[0.219]	[0.181]
N	159	159	159	125

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B4. Social Support

	(1)	(2)	(3)	(5)
	end_soc_support	end_soc_support	end_soc_support	end_soc_support
Treatment	-0.253	-0.218	-0.265	-0.254
	[0.173]	[0.154]	[0.165]	[0.180]
Constant	4***	1.791***	1.470*	3.915***
	[0.111]	[0.389]	[0.596]	[0.252]
N	161	161	161	126

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B5. Scale of Positive and Negative Experiences

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	-0.0731	-0.0509	-0.0599	-0.0626
	[0.0584]	[0.0535]	[0.0607]	[0.0651]
Constant	3.270***	1.493***	3.738***	3.085***
	[0.0392]	[0.305]	[0.252]	[0.202]
N	164	164	164	128

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B6. Life Satisfaction

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	-0.415	-0.318	-0.364	-0.448
	[0.281]	[0.231]	[0.264]	[0.273]
Constant	6.736***	2.887***	6.844***	5.418***
	[0.180]	[0.393]	[0.829]	[1.145]
N	165	165	165	129

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B7. Worthwhileness

	(1)	(2)	(3)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	-0.320	-0.252	-0.331	-0.426
	[0.301]	[0.229]	[0.283]	[0.287]
Constant	7.230***	1.533**	4.045***	4.377***
	[0.188]	[0.489]	[1.111]	[1.284]
N	165	165	165	129

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B8. GAD7

	(1)	(2)	(4)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	0.581	0.138	0.166	-0.00902
	[0.855]	[0.639]	[0.498]	[0.794]
Constant	13.80***	2.509**	2.399*	12.59***
	[0.581]	[0.934]	[0.940]	[3.001]
N	158	158	158	124

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Table B9: PHQ9

	(1)	(2)	(4)	(5)
	Basic Model	Null Imputation	Null Imputation with Covariates	Complete Case
Treatment	0.233	0.234	0.237	0.250
	[0.198]	[0.192]	[0.210]	[0.191]
Constant	1.808***	0.466**	0.313*	1.602***
	[0.0617]	[0.153]	[0.120]	[0.300]
N	154	154	154	121

Standard errors in brackets
* p < 0.05, ** p < 0.01, *** p < 0.001

Endnotes

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