

Evidence on reducing burnout among frontline workers: a literature review

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About What Works Centre for Wellbeing

We are an independent collaborating centre and the aim of our work is to improve wellbeing and reduce misery in the UK. We believe that this is the ultimate goal of effective policy and community action. By accelerating research and democratising access to wellbeing evidence, we develop and share robust evidence for governments, businesses, communities and people to improve wellbeing across the UK.

About the report

This report was authored by <u>Mónica Quinzá</u>, Research Assistant at What Works Wellbeing, with support from the broader Frontline Worker Wellbeing project team, and the Centre for Homelessness Impact. The report was funded by St Martin-In-The-Fields Charity.

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. <u>https://www.homelessnessimpact.org/</u>

About St Martin-In-the-Fields Charity

The charity exists so that everyone has a place to call home. It supports frontline workers across the UK and through this they work towards ensuring that everyone experiencing homelessness can secure, and keep, a safe place to live. <u>https://www.smitfc.org/</u>

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Introduction

The overwhelming majority of services to support people experiencing homelessness depend on frontline workers for their delivery. In a battle for evidence based interventions to tackle homelessness, and ensuring that it is rare, brief, and non-recurring, it is essential that frontline workers are able to deliver these interventions - something which is hampered by low wellbeing and high burnout among these workers.

This review forms part of an ongoing research project conducted by the What Works Centre for Wellbeing (WWCW), in partnership with the Centre for Homelessness Impact (CHI), which looks at what the evidence says about how to bolster frontline worker wellbeing, with a particular focus on workers in the homelessness sector. This project is being funded by St Martin-in-the-Fields, a leading homelessness charity.¹

The 'Frontline Worker Wellbeing Project' has two main strands of work led by What Works Centre for Wellbeing:

- 1. A literature review:
 - a. to consolidate the evidence on trials that can improve wellbeing and reduce burnout among frontline workers.
 - b. to identify promising light-touch, 'nudge'-type interventions that can be implemented, given budget constraints, at low cost in the UK-context.
- 2. The design and implementation of a light-touch intervention aimed at reducing burnout among frontline staff working in the UK homelessness sector.

This report presents findings from the literature review strand of the 'Frontline Worker Wellbeing Project', focusing on:

- Why workplace wellbeing matters for frontline workers.
- High-quality evidence from wellbeing interventions aimed at reducing burnout in frontline workers.
- Recommendations for future research and practice, including trial implementation in the UK homelessness sector.

https://whatworkswellbeing.org/projects/what-works-to-reduce-burnout-in-frontline-wo rkers/

¹What Works Centre for Wellbeing (2023, September). What works to reduce burnout in frontline workers?.

Why frontline staff wellbeing matters

"Wellbeing is how we're doing as individuals, communities, and as a nation, and how sustainable that is for the future. It encompasses environmental factors that affect us and how we function in society, and the subjective experiences we have throughout our lives." - What Works Centre for Wellbeing²

How we are doing as individuals captures how we are feeling about our lives, jobs, and relationships. Several aspects of our wellbeing are influenced by our jobs, from day-to-day experiences with managers and colleagues, to our everyday feelings of purpose and connection with our work.

Figure 1: What does 'good work' look like?



Source: What Works Centre for Wellbeing. (2017, April). Why Invest in Employee Wellbeing?. https://whatworkswellbeing.org/resources/why-invest-in-employee-wellbeing/

Improving workplace wellbeing by trying to increase the supply of higher-quality jobs not only benefits the employees, but also the organisation. Companies with happier employees have better performance and lower employee turnover. They also experience less presenteeism, which occurs when employees are physically present at work but are emotionally and mentally disconnected due to poor emotional and/or physical wellbeing. As this often leads to less than expected employee results, lower employee wellbeing also affects the overall functioning of organisations.³

²What Works Centre for Wellbeing. (2023). What is wellbeing?.
 <u>https://whatworkswellbeing.org/about-wellbeing/what-is-wellbeing/</u>
 ³What Works Centre for Wellbeing. (2017, April). Why Invest in Employee Wellbeing?
 <u>https://whatworkswellbeing.org/resources/why-invest-in-employee-wellbeing/</u>

Improving workplace wellbeing by reducing burnout among frontline workers in the homelessness sector in the UK

"I've been working in this sector for 9 years and I'm finding it increasingly difficult to deal with the levels of deprivation which my clients are having to live with. This is having a detrimental impact on my mental health and my ability to relax and spend quality time with my children." - Frontline worker, Edinburgh and Lothians⁴

"The stress of not being able to help clients is ongoing and will just lead to more burnout as the housing crisis worsens." - Frontline worker, London⁵

In the UK, frontline staff working with people experiencing homelessness experience lower wellbeing than other types of workers. In 2022, 58% of frontline 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.⁶

The World Health Organization⁷ defines burnout as a syndrome or a group of symptoms resulting from chronic job stress that has not been managed well in an occupational context.

Three dimensions are thought to be present when experiencing burnout:

- 1. Feelings of exhaustion or energy depletion
- 2. Feelings of negativity, cynicism, and mental distance from one's job
- 3. Decrease in professional efficacy

⁴ St. Martin-in-the-Fields. (2023, March). *Frontline Worker Survey: Experiences of frontline homelessness work*.

https://www.frontlinenetwork.org.uk/media/2794/frontlinenetworksurvey-workforcefindi ngs-1603.pdf

⁵St. Martin-in-the-Fields. (2023, March). *Frontline Worker Survey: Experiences of frontline homelessness work*.

https://www.frontlinenetwork.org.uk/media/2794/frontlinenetworksurvey-workforcefindings-1603.pdf

⁶St. Martin-in-the-Fields. (2023, March). *Frontline Worker Survey: Experiences of frontline homelessness work*.

https://www.frontlinenetwork.org.uk/media/2794/frontlinenetworksurvey-workforcefindings-1603.pdf

⁷ World Health Organization. (2019, 28 May). *Burn-out an "occupational phenomenon"*: International Classification of Diseases.

https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-int ernational-classification-of-diseases

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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 deprivation⁸ -these experiences can potentially lead to burnout.⁹ Frontline 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.¹⁰

Organisations can design and test programmes aimed at supporting frontline staff, to manage how they react and cope with stressful situations, or design interventions that target other aspects of employee wellbeing, in order to prevent or manage symptoms of burnout.

Literature review

Methodology

A literature review was carried out to identify high-quality evidence on what works to reduce burnout among frontline workers. It was conducted using a structured search for studies, across peer-reviewed and grey literature sources.

Research questions:

- 1. What causal evidence is available on low wellbeing and burnout among frontline employees?
- 2. What are the mechanisms/mediators that are correlated with relevant outcomes such as burnout and staff turnover?
- 3. Which low-cost interventions, informed by lessons from behavioural science, which have been conducted with frontline employees are suited to replication in the UK public or voluntary sector?

⁸ St. Martin-in-the-Fields. (2023, March). *Frontline Worker Survey: Experiences of frontline homelessness work*.

https://www.frontlinenetwork.org.uk/media/2794/frontlinenetworksurvey-workforcefindi ngs-1603.pdf

⁹ Brinkborg, H., Michanek, J., Hesser, H., & Berglund, G. (2011). Acceptance and commitment therapy for the treatment of stress among social workers: A randomized controlled trial. *Behaviour research and therapy*, 49(6-7), 389-398.

¹⁰ St. Martin-in-the-Fields. (2023, March). *Frontline Worker Survey: Experiences of frontline homelessness work.*

<u>https://www.frontlinenetwork.org.uk/media/2794/frontlinenetworksurvey-workforcefindi</u> ngs-1603.pdf

The PICOS framework was used to define the key characteristics of studies when searching available evidence. PICOS is a tool that helps researchers define the Population, Intervention, Comparator, Outcomes, and Study design of studies during literature searches and screening.

In this review, we **searched** for literature that focused on:

- Frontline workers across public, private and third sectors defined here as those workers who have as a regular and expected part of their job, direct contact (either face to face or remotely), with people, patients, or clients of the organisation's services.
- Interventions delivered directly to frontline employees aimed at reducing burnout. Interventions were analysed by intervention theme (high-level groupings based on intervention aims, core components and mechanisms that lead to reductions in burnout) and by intensity.
- Burnout as a quantitative outcome of interest.

We searched for **primary studies** and only included research that used a **randomised controlled trial (RCT) or quasi-experimental design** that were **published in English**. This allowed us to identify research that uses robust study designs and provide evidence users with greater confidence in study conclusions. Appendix A describes the search strategy, including the PICOS and databases used to search for literature.

Study characteristics

We focused primarily on interventions rooted in psychological and behavioural science: such interventions target challenging emotions and behaviors, by changing behaviors, appraisals of situations and thinking patterns, or both, and in particular, by cultivating more adaptive attitudes, beliefs, and behaviors. They are thus especially suited to tackle burnout amongst frontline workers. Typically, such interventions are also more cost-effective than other, more heavy-handed types of interventions.

The literature review included **33 peer-reviewed studies** that were categorised by intervention theme, intervention intensity (dose), delivery mode, and study population. Table A3 in Appendix B details the interventions of the 33 included studies.

Intervention theme

Studies were grouped into three main intervention themes and their respective subthemes (where applicable).

1. Psychological (82% of studies):

- Psychoeducational
- Therapeutic
- Psychosocial
- Other psychological (non-therapeutic)
- 2. Social support/ social connection (9% of studies)

3. Other (9% of studies):

- Coaching
- Complex organisational interventions

A detailed description about each intervention theme and subtheme is available starting on page 11 of this report.

Intervention intensity

For this literature review, intervention intensity was classified as: light-touch, medium-touch and intensive. Categorisations of interventions were made relative to all included interventions, due to lack of standardised definitions.

While there is no hard rule for defining intensity, we have considered light-touch interventions to be small contextual changes that are not resource-intensive and can be implemented rapidly and with ease¹¹. This might be received passively, or require less than an hour to engage with. An example are interventions informed by Behavioural Science, which are often (but not always) low cost, and can be implemented inside the framework of more traditional economic interventions such as pay and performance management. This makes them a desirable policy tool for government, charities, and businesses.

In comparison, medium-touch interventions were considered as requiring between one and four hours engagement. Intensive interventions were considered those that take five or more hours of active engagement and are received actively.

In this literature review, 21% of studies (n=7) were classified as light-touch interventions, 15% (n=5) were classified as medium-touch interventions, and 64% (n=21) were classified as intensive interventions.

[&]quot;What Works for Children's Social Care. (2021, 19 March). New research finds light-touch interventions may improve social worker wellbeing.

https://whatworks-csc.org.uk/blog/new-research-finds-light-touch-interventions-may-i mprove-social-worker-well-being/

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Trial delivery

Interventions were delivered in **person**, **online**, by **phone**, or in a **hybrid** format (e.g. interventions delivered in person and online, or in person and by phone). The majority of trials (52% of studies, n=17) were delivered in person, followed by 27% delivered online (n=9). Hybrid interventions made up 12% (n=4). Lastly, interventions delivered by phone represented 9% of studies (n=3).

Study population

Around 76% of interventions were delivered to healthcare providers (n=25), followed by 6% to non-medical staff in a hospital (n=2), 6% to child-care professionals (n=2), 3% to community mental health care workers (n=1), 3% to carers of people with intellectual disabilities (n=1), 3% to emergency services call dispatchers (n=1), and 3% to social workers (n=1).

High-level findings

- **94%** of studies (n=31) **reported reductions in burnout** for the intervention group compared to the control group, while only 6% of studies (n=2) reported increases in burnout¹².
- 64% of studies (n=21) found statistically significant reductions in burnout.
- Effect sizes varied across studies by measure and size:
 - 39% of studies (n=13) reported effect sizes as defined by Cohen's d¹³ (or shared the necessary data to calculate this estimate¹⁴):
 - 24% (n=8) reported small effects ((d≥0.02 and d≤0.49).
 - 12% (n=4) reported moderate effects ($d \ge 0.50$ and $d \le 0.79$).
 - 3% of studies (n=1) reported large effects ($d \ge 0.80$ and $d \le 1.19$).
 - 15% of studies (n=5) reported effect sizes as defined by the (partial) eta squared $(\eta_n^2)^{15}$:
 - 12% (n=4) reported small effects ($\eta_n^2 \ge 0.01$ and $\eta_n^2 \le 0.05$).
 - 3% (n=1) reported moderate effects ($\eta_n^2 \ge 0.06$ and $\eta_n^2 \le 0.13$).
 - 6% of studies (n=2) reported small effect sizes in the study, but did not provide any effect size measure [8, 10].
 - 39% of studies (n=13) did not report any effect size.
- Most studies have a follow-up period between three and six months post-treatment. For the majority of studies we report the most recent follow-up and in the case of studies with multiple follow-ups, we include reflections on any changes in impact over time.

¹²These increases in burnout were not statistically significant.

¹³ Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

¹⁴ One study provided the Standard Deviation [9].

¹⁵ Cohen, J. (1988). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.

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Study findings by theme

Psychological interventions

Psychological interventions were defined as interventions based on an explicit psychological theory framework - such as behavioural theory or cognitive theory. These were further grouped using the following subthemes:

- 1. **Psychoeducational**: Interventions that provide educational content which focuses on conditions/challenges experienced by participants.
- 2. **Therapeutic**: Interventions that provide non-pharmacological support/treatment based on established approaches (eg. Cognitive-Behavioural Therapy).
- 3. **Psychosocial**: Interventions that consider how both psychological factors and the social environment impact an individual's physical and mental wellbeing, and their ability to function within their environment (e.g. family, work, society).
- 4. **Other psychological** (non-therapeutic): Interventions that provide non-pharmacological support/treatment not based on an explicit and/or established approach.

Five studies were identified as psychoeducational interventions [2, 10, 12, 21, 24]. These trials were implemented for healthcare practitioners in Poland [10], the United Kingdom [24], and the United States [2, 12, 21]. The interventions included educational modules that focused on reducing burnout and improving wellbeing by educating participants on themes such as resilience (e.g. personal coping resources, stress and recovery, post-traumatic growth, purpose and meaning), insights and introspection (e.g. cognitive and emotional awareness, self-compassion (e.g. compassion fatigue and satisfaction, self-compassion skills), empowerment (e.g. healthy boundaries, authentic living and values-behaviour alignment), self-care, self-efficacy and social support. Two were delivered in person [2, 12] and two online [10, 21]. One was initially delivered in person and then switched to online delivery at the start of the COVID-19 pandemic [24]. All studies in this subtheme reported reductions in burnout between one month to six months post-intervention, and of these three were statistically significant [2, 21, 24]. Of those that were not statistically significant, the studies showed 'directional' findings - that is, that the level of burnout was lower in the treatment/intervention group than in the control/comparison group.

Of the three psychoeducational trials that also reported effect sizes [2, 10, 24], the intervention with the largest reported effects [d=0.60, moderate effect size] was delivered to mental health nurses in Northern England (treated=83 and control=90) working in the Rotherham Doncaster and South Humber (RDaSH) NHS Foundation Trust [24]. The 173 nurses volunteered to take part in the trial and were subsequently randomised into a treatment or waitlist control group, where people received intervention post trial. This 'Mind Management Skills for

Life Programme' was an intensive intervention based on neuroscience and psychology research that taught participants about the structuring of the mind, how it functions and how it can be managed (e.g. management of behaviours, thoughts and emotions) in everyday life to improve wellbeing and reduce burnout.¹⁶ The programme was implemented in eight weekly sessions that lasted 90 minutes each. The first two sessions of the programme were delivered in person at the beginning of March 2020, but due to the mandatory COVID-19 lockdown, the remaining six sessions had to be delivered online. These group-based sessions were structured in lecture-style presentations, discussions, self-reflection activities, and written tasks.

The impact evaluation of the 'Mind Management Skills for Life Programme' was conducted as a waitlist RCT. Eight weeks after the programme ended, nurses reported statistically significant reductions in burnout [-3.07 points of the total Oldenburg Burnout Inventory mean score, treated =35.26 (SD=5.78); waitlist control group=38.33 (SD=4.49); d=0.60]. In the subsequent follow-up periods after the waitlist control group received the intervention and at six months follow-up, no statistically significant differences were found between the remaining participants of the two groups.¹⁷ These results suggest that the intervention was effective in reducing burnout for both groups, although burnout slightly increased over time for both groups [after training of waitlist control: treated=36.32 (SE=0.46), waitlist control=36.00 (SE=0.44), mean difference=0.32, mean difference p-value=0.617; six months follow-up: treated=36.52 (SE=0.51), waitlist control= 36.97 (SE=0.49), mean difference=-0.45, mean difference p-value=p=0.521]. High attrition rates in the data suggest that the six-month follow-up data should be treated with caution, as attrition can affect statistical inference.18

There was one light-touch psychoeducational trial that found statistically significant reductions in burnout [21]. The 'Web-based Implementation for the Science of Enhancing Resilience' (WISER) trial was designed by medical researchers and offered to 224 healthcare workers (treated=78 and control=146) working in a neonatal intensive care unit in a hospital in the United States. For six months between August 2017 and January 2017, healthcare workers electronically received one short educational module promoting wellbeing and resilience every month that was available for 10 days (six modules in total). Modules covered the following topics (in order): (1) gratitude, (2) three good

¹⁶ Burnout was measured using the Oldenburg Burnout Inventory (OLBI).

¹⁷ Attrition in the data resulted in missing outcomes data for both treated and control groups in the follow-up periods (around a 50% attrition rate for both groups). To test the robustness of results, authors created imputed-data samples where they found the same results as in the original data.

¹⁸ Laker, V., Simmonds-Buckley, M., Delgadillo, J., Palmer, L., & Barkham, M. (2023). Pragmatic randomized controlled trial of the Mind Management Skills for Life Programme as an intervention for occupational burnout in mental healthcare professionals. *Journal of Mental Health*, 1-9.

things, (3) awe, (4) random acts of kindness, (5) identifying and using signature strengths, and (6) relationship resilience. Each module started with an 8-10 minute educational video followed by a simple and engaging 2-7 minute activity for reflection.

The impact evaluation of the WISER trial was conducted as a waitlist cluster RCT. One month after the intervention was implemented, healthcare workers who received the intervention experienced lower burnout¹⁹ relative to the control group [-5.64 percentage points of the share of participants reporting concerning burnout results, p-value=0.005]. Treatment effects appeared to last six months, as healthcare workers who received the intervention continued to report lower burnout compared to the control group [-4.85 percentage points of the share of participants reporting concerning burnout results , p-value=0.031]. The six-month follow-up results should be interpreted with caution due to a 50% attrition rate.²⁰

There were fourteen **therapeutic interventions**.²¹ The majority of these interventions were implemented for medical staff in hospitals, but 29% (n=4) were also delivered for non-medical staff in a hospital [16], carers of people with intellectual disabilities [7], social workers [19], and child welfare professionals [31]. These interventions were implemented in China [32], Iran [16], the Netherlands [15], Singapore [27], Spain [5, 7, 28], Sweden [19], Turkey [26], the United Kingdom [3], and the United States [13, 29, 31, 33]. The trials involved therapeutic support/treatment based on Acceptance and Commitment Therapy (ACT), mindfulness, compassion, acupressure, emotional freedom techniques, and resilience-based theory. Around 86% of these therapeutic interventions (n=12) reported reductions in burnout. Moreover, around 60% (n=9) resulted in statistically significant reductions in burnout from baseline to post-intervention and/or a three-month follow-up period [3, 5, 13, 15, 16, 19, 26, 27, 33].

A psychological therapeutic trial of mindfulness-based resilience training (considered an intensive intervention) implemented in the United States found a large effect size. This effect size was only statistically significant for the emotional exhaustion subscale of the Maslach Burnout inventory for Human Services

¹⁹ Burnout was measured using the emotional exhaustion dimension of the Maslach Burnout Inventory (MBI). Consequently, authors calculated the percentage of participants in each group that reported concerning results (an MBI score of 50 or higher) which reflects a state of "not disagreeing" on average with emotional exhaustion items.

²⁰ Profit, J., Adair, K. C., Cui, X., Mitchell, B., Brandon, D., Tawfik, D. S., ... & Sexton, J. B. (2021). Randomized controlled trial of the "WISER" intervention to reduce healthcare worker burnout. *Journal of Perinatology, 41(9),* 2225-2234.

²¹One was primarily psychological therapeutic but included psychoeducational methods as well.

Survey (MBI-HSS).²² There was one therapeutic intervention offered in person to social workers (n=106) in Sweden [19]. This trial was a group-based stress management intervention based on Acceptance and Commitment Therapy (ACT). There were four weekly therapeutic sessions of three hours each using metaphors and exercises as key components. Sessions focused on: (1) stress, acceptance and language; (2) values; (3) obstacles and flexibility; and (4) compassion, communication, and maintenance of change. Between-sessions homework was also assigned to participants, which included physical exercises and mindfulness practice.

The impact evaluation of the therapeutic intervention in Sweden was conducted as a stratified RCT. Participants were stratified according to initial levels of stress at baseline to assess whether initial levels of stress moderated the effects of the intervention. Participants were grouped into the 'high stress' level group if they reported a score of 25 or higher on the self-reported Perceived Stress Scale.²³ Post-intervention, social workers (regardless of initial stress levels) who were part of the programme (n=70) reported statistically significant lower levels of burnout [Maslach Burnout Inventory total scale (0-132) = 37.4 points] than the waitlist control group [(n=36), total scale (0-132) = 44.4 points]. This impact was interpreted as a moderate-sized effect [d=0.50, p-value=<.001]. Post-intervention, other dimensions of the Maslach Burnout Inventory revealed statistically significant lower symptoms of emotional exhaustion [treated=20.1 points, waitlist control=22.9 points, d=0.32, p-value=.05], depersonalisation [treated=4.8 points, waitlist control=6.1 points, d=0.33, p-value=<.01], and personal accomplishment [treated=12.5 points, waitlist control=15.4 points, d=0.48, p-value=<.001]. Moreover, treated participants (n=45) assigned to the 'high stress' group showed statistically significant lower levels of burnout compared to the control group (in all burnout dimensions of the Maslach Burnout Inventory [p-value=<.01] and the composite measure [p-value=<.001]). No statistically significant differences were found between the treated and control groups in the 'low stress' level group.²⁴

There were four **psychosocial interventions** [17, 23, 25, 30] . These trials were implemented in Sweden [17, 23], the United States [25] and in an international Facebook group [30], and were delivered to healthcare practitioners [23, 30], workers in an occupational healthcare service [17], and emergency services call dispatchers [25]. They were group-based programmes that trained staff in

²² Mistretta, E. G., Davis, M. C., Temkit, M. H., Lorenz, C., Darby, B., & Stonnington, C. M. (2018). Resilience training for work-related stress among health care workers: results of a randomized clinical trial comparing in-person and smartphone-delivered interventions. Journal of occupational and environmental medicine, 60(6), 559-568.

²³ Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 385e396.

²⁴ Brinkborg, H., Michanek, J., Hesser, H., & Berglund, G. (2011). Acceptance and commitment therapy for the treatment of stress among social workers: A randomized controlled trial. *Behaviour Research and Therapy, 49*(6-7), 389-398. ²³ Burnout was measured using the Copenhagen Burnout Inventory (CBI).

communication skills and problem-solving techniques [17], delivered organisational participatory workshops to improve organisational processes and strengthen teams [23], and promoted social support and belonging affirmation between staff members [25, 30]. Two studies reported statistically significant reductions in burnout among frontline workers [25, 30]. These trials were light-touch interventions delivered online that promoted social support and belonging affirmation. One of these studies was a six-week intervention offered to workers (n=536, treated=271, control=265) that prompted them to share personal experiences and advice with their peers in several cities in the United States.

The impact evaluation of the six-week intervention was conducted as a multi-city RCT (stratified by city). Six months post-intervention, the study found moderate, statistically significant reductions in burnout[-8.38 of the total Copenhagen Burnout Inventory mean score, robust SE=3.37, effect size=-0.42 SD, p-value=<0.05] compared with the control group [mean=51.96 points of the total Copenhagen Burnout Inventory mean score] while resignations decreased by more than half [-4 percentage points (robust SE=0.02), control mean=5.1%, p-value=<0.05]. The authors also performed a cost effectiveness analysis and found that if this type of intervention were to be scaled up to all emergency services call dispatchers of the organisation where the trial was implemented, it could result in large public savings. These were estimated as \$400,000 USD in personnel costs in a mid-sized city with a 100 workers in the United States, due to reductions in employee turnover. Other potential savings not included in this calculation are the lower probability of death due to the association between workplace stress and deaths per year,²⁵ and potential savings in health care costs.²⁶

The interventions classified as **other psychological (non-therapeutic)** (n=3) involved a body-mind spirit programme for mental healthcare workers [11], yoga [20] and laughter yoga for nurses [26]. These interventions were implemented in China [11], Turkey [26], and in the United States [20], and were considered as intensive interventions. All three trials reported statistically significant reductions in burnout [11, 14, 20].

The trial that offered online laughter yoga courses resulted in statistically significant reductions in emotional exhaustion, depersonalisation and personal accomplishment for nurses (n=51) that volunteered to be part of the program in

²⁵ In the United States in 2016, workplace stress was associated with more than 5% of healthcare costs and more than 120 000 deaths per year.

²⁶ Linos, E., Ruffini, K., & Wilcoxen, S. (2022). Reducing burnout and resignations among frontline workers: A field experiment. *Journal of Public Administration Research and Theory, 32*(3), 473-488.

Turkey compared with the nurses that did not (n=50).²⁷ Two laughter yoga courses were offered weekly for 4 weeks. The impact evaluation was conducted as an RCT. Post-intervention, treated nurses reported statistically significant reductions in the MBI total score [42.43 points (SD=9.57)] compared to the control group [53.44 points (SD=10.27), p-value=0.000].²⁸

Social support / social connection interventions

Social support / social connection trials are defined as interventions where the primary aim is to provide social support and/or facilitate social connections between trial participants.

There were three social support/social connection trials. These trials were delivered in person in the form of staff support groups [1], a Shinrin-Yoku (forest bathing) intervention [4], and a supportive leadership training intervention that taught leaders to be supportive of their employees [8]. Two trials were intensive interventions that were implemented in Germany [8] and the Netherlands [1], and one was a medium-touch intervention implemented in the United States [4]. All three studies reported reductions in burnout, but only one found significant effects [1]. This intervention provided team-based staff support groups with a participatory action research approach and was offered to healthcare providers in the Netherlands. Team-based support group meetings were designed for participants to share how they felt about their work, including recent problems encountered at work and potential ways to solve them. There were six monthly three-hour in-person sessions combining education and problem-solving activities. Each session covered the following topics (in order): (1) job stress; (2) emergence and preservation of unwanted collective behaviour; (3) communication and feedback; (4) building social support networks; (5) balancing job-related investments and outcomes; and (6) potential problems when dealing with transitions and ways to overcome them.

The impact evaluation was conducted as an RCT. Post-intervention, the treated group experienced statistically significant reductions in emotional exhaustion [-0.23 points of the emotional exhaustion subscale of the Dutch version of the MBI, p-value=<0.05] and depersonalisation [-0.12 points of the depersonalisation subscale of the Dutch version of the MBI, p-value=<0.05] compared with the control group. At six months follow-up, the treated group continued to report

²⁷ Burnout was measured using the Maslach Burnout Inventory (MBI). The dimensions of burnout covered by this measure are emotional exhaustion, depersonalisation and personal accomplishment.

²⁸ Çelik, A. S., & Kılınç, T. (2022). The effect of laughter yoga on perceived stress, burnout, and life satisfaction in nurses during the pandemic: A randomized controlled trial. *Complementary therapies in clinical practice, 49*, 101637.

statistically significant reductions in emotional exhaustion [-0.15 points of emotional exhaustion subscale of the Dutch version of the MBI, p-value=<0.05].²⁹

Other interventions

There were three interventions grouped in the 'other' intervention theme. Two were coaching interventions implemented in the United States [9, 22] and one was a complex organisational-level intervention implemented in Belgium [18]. All three trials were intensive interventions, and they all found statistically significant reductions in burnout [9, 18, 22]. Coaching interventions were then further classed as psychological (n=1) and social support/social connection (n=1). The psychological coaching intervention found the largest impacts (moderate-sized effect) compared with the social support/social connection coaching intervention and the complex organisational intervention.

The psychology-based coaching intervention was offered to primary care physicians (treated=29 and control=29) in the United States. Trial participants received 6 individual coaching sessions in 3 months (one session every two weeks). The first session was a sixty-minute in-person session focused on coaching alliance, strengths, and client-centred goals. The remaining sessions were thirty-minute phone sessions focused on different coaching topics and tools, and the client-centred action plans designed in the first session. The impact evaluation of the programme was conducted as an RCT. Primary-care physicians who received the coaching intervention experienced statistically significant reductions in burnout post-intervention [treated=1.97 points (SD=0.72)³⁰ and control=2.45 (SD=0.72), p-value=0.003].³¹

Interpretation

There is only a small to modest number of studies using credible research designs to test the effectiveness of interventions rooted in psychological and behavioural science to tackle burnout amongst frontline workers. Of those studies, most are based on social psychology, and half of them look at medium or less intensive interventions. The vast majority of this evidence is on frontline workers in healthcare, and none on frontline workers in the homelessness sector.

In general, the evidence points towards interventions being effective in reducing burnout amongst frontline workers, and of those that do report effect sizes, more than half (64%) report significant reductions in burnout symptomatology, regardless of measure, though effect sizes tend to be small. As there is a general

²⁹ Le Blanc, P. M., Hox, J. J., Schaufeli, W. B., Taris, T. W., & Peeters, M. C. (2007). Take care! The evaluation of a team-based burnout intervention program for oncology care providers. *Journal of applied psychology*, 92(1), 213.

³⁰ Burnout was measured using the Maslach Burnout Inventory (MBI) with a response scale from 0 ("never") to 6 ("every day").

³¹McGonagle, A. K., Schwab, L., Yahanda, N., Duskey, H., Gertz, N., Prior, L., ... & Kriegel, G. (2020). Coaching for primary care physician well-being: A randomized trial and follow-up analysis. *Journal of occupational health psychology, 25*(5), 297.

tendency to publish positive findings, selective publication (e.g. publication bias) may mean that many non-findings do not end up published, and existing evidence should be interpreted with this caveat in mind. It should be noted that most existing evidence is geared towards WEIRD (western, educated, industrialized, rich, and democratic) countries, as well as selective alongside various other dimensions. For instance, in many instances participants voluntarily selected into participation in interventions, which may mean that they were already favorably predisposed to treatments prior to intervention start, making generalisable claims more difficult to maintain. Moreover, studies were often severely limited in terms of follow-up (with associated problems in attrition), rarely exceeding outcome measurement six-months post-intervention. Few studies report costs, though those that do point towards cost-effectiveness.

Taken together, the limited evidence, though selective, points towards the (cost-)effectiveness of light-touch interventions in dealing with burnout amongst frontline workers. Given the lack of evidence on frontline workers in the homelessness sector, as well as a general lack of evidence on longer-term impacts (up until a year post-intervention), there is a need for more credible evidence on the short and long-term impacts of light-touch interventions for frontline workers in the homelessness sector.

Limitations

The majority of the 33 peer-reviewed interventions analysed in this literature review have some common limitations, such as small sample sizes and high attrition rates. A small sample size can affect the precision of the estimates, the probability of finding statistically significant results if these exist in the data, the representativeness of the sample, and the extrapolation of results. In addition, the majority of studies did not test for the mechanisms that might have driven the statistically significant reductions in burnout.

Another limitation was that the majority of studies analysed the impact of interventions on self-reported outcomes, which might introduce social desirability bias/experimenter demand effects. Trial participants could have overreported positive outcomes and underreported negative outcomes, being aware of the intervention and trying to please researchers. Objective measures - such as the share of employees leaving the organisations or taking leave - would have reduced the possibility of this type of bias.

In addition, since in the majority of implemented trial participants volunteered to take part, it is likely that frontline workers who experienced the strongest symptoms of burnout did not participate, and, by the same token, only those who participated were more likely to be already favourably disposed to the trial's specific treatment. Assuming that workers facing high levels of burnout could benefit more from these types of interventions, and the contrary for workers facing low levels of burnout, we are not able to say much about the direction of the bias in the treatment effects estimated in the studies covered in this literature review due to the self-selection of participants in the trial.

Studies were also only considered if they were written in the English language, and therefore excluded trials in other languages that could have been designed to alleviate burnout in frontline workers. Given the context in which future interventions might be tested, and the dominance of English as a language of academic journals, this is likely only a small limitation, but worth considering

Publication bias can be present in the studies analysed in this literature review as all of them are peer-reviewed articles. Studies that find positive and statistically significant impacts are more likely to be published than those that do not. Therefore the studies included in this review may not reflect the overall evidence base on worker wellbeing burnout interventions.

The majority of interventions in this literature review were offered to healthcare providers. None of the interventions analysed were offered to frontline workers working with people experiencing homelessness. This calls for more comprehensive reviews to identify more relevant or more comparable studies.

Finally, there are limitations in terms of the parameters of our search. For reasons of timing, this has necessarily been a literature review, and so has not been able to pursue searches as deeply, including iterating, as would have been possible in a full systematic review. The review had limited capacity to consider the 'grey' literature - publications by governments or research organisations that are not in peer reviewed journals or other formats that are indexed by databases.

Conclusion

This literature review focused on 33 peer-reviewed studies (published between 2007 and 2023) to analyse the evidence on interventions implemented to reduce burnout in frontline workers.

Almost all studies were implemented in OECD countries (n=29), and 76% (n=25) were offered to healthcare providers. In terms of delivery, 52% of studies (n=17) were implemented in person, followed by 27% delivered online (n=9).

Of the 33 analysed trials, 94% (n=31) reported reductions in burnout for the treated group compared with the control group post-intervention. Around 64% (n=21) found statistically significant reductions in burnout after the intervention was implemented. Furthermore, around 42% of studies (n=14) reported small size effects, 15% (n=5) reported moderate size effects, 3% (n=1) reported large effect sizes, and 39% (n=13) did not report any effect size.

Of the trials that reported moderate effect sizes, all five found statistically significant reductions in burnout. Four of these were intensive interventions and one was an online light-touch trial. Of the intensive interventions, two were delivered in person and the other two were delivered in a hybrid format. Lastly, of the trials that reported small sizes, 64% (n=9) found statistically significant reductions in burnout. Of these, eight trials were intensive interventions and one was a medium-touch intervention.

There were 36% of studies (n=12) that did not find statistically significant effects, around 50% (n=6) were intensive interventions, and 25% (n=3) were medium-touch and 25% (n=3) light-touch interventions.

Overall, this literature review shares evidence on the types of interventions that can alleviate burnout in frontline workers such as psychoeducational, therapeutic, psychosocial, non-therapeutic, social support/social connection, coaching or complex organisational interventions.

The evidence analysed in this report, albeit it limited, points towards the cost-effectiveness of light-touch interventions in reducing burnout and promoting wellbeing among frontline workers in various sectors. In addition, this literature review highlights the large evidence gap in interventions implemented to reduce burnout in frontline workers in the homelessness sector, including the design and implementation of long-term interventions (e.g. analysed impacts up to one year post-intervention).

Recommendations

To consolidate the evidence base on burnout among frontline workers, the following recommendations have been developed for researchers, policymakers, and practitioners:

- Build evidence on what works to reduce burnout amongst frontline workers in the UK, beyond the healthcare sector, with a particular focus on the homelessness sector.
- Implement RCTs to determine programme effectiveness, in particular, for 'light-touch' nudge-style interventions and social support/social connections-based interventions.
- Explore the design of 'light-touch' interventions as a low-cost way to affect small but important changes. Light-touch trials are often easier to implement and do not require any structural programmatic changes, and should therefore be explored in a first step prior to moving towards more costly, resource-intensive interventions.
- Design interventions that maximise the number of trial participants to improve statistical power and increase the probability of finding statistically significant results, if these exist in the data.

- Study the impact of outcomes and moderators that are correlated with improved employee wellbeing and reduced burnout, and mechanisms that drive changes in burnout. Some that looked promising in the studies analysed in this report are job characteristics such as workload, emotional demands, job control [1] and social support [25].
- Focus both on objective wellbeing indicators (e.g. administrative data that measure objective outcomes such as the share of employees leaving the organisation, employee turnout rates, share of employees taking leave, etc.) and subjective wellbeing indicators .
- Ensure interventions are pre-registered and that results are reported in a complete and consistent way. This will ensure greater transparency, reduce publication bias and allow for greater replicability.

Based on this literature review, we have produced the following shortlist of four interventions, in order of priority, which we recommend for further testing and implementation by the UK government and the homelessness sector (table 1). This is based on the statistically significant moderate effect sizes³² reported for reductions in burnout among frontline workers, taking into consideration implementation costs and practicalities.

³² The trial that found large effects on burnout [13] is not being recommended for replication since impacts were only found on emotional exhaustion and not on the other two dimensions of burnout measured by the Maslach Burnout Inventory (e.g. depersonalisation and personal accomplishment).

Table 1: Shortlist of recommended interventions for I	replication within the homelessness sector
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Study	Ref #	Length	Description	Reasons for replication	Limitations
Linos et al. (2022)	25	Six week	Belonging affirmation intervention involving email exchanges (see page 12 for more details)	Comparable participant group (emergency service dispatchers) = transferable and appropriate for frontline workers in homelessness sector Online delivery = lower cost No expertise needed = lower cost and more accessible to run Cost-effectiveness calculations done by authors suggest potential savings for the implementing organisation by reducing employee turnover.	Preference for in-person interventions might affect trial participation.
Laker et al. (2023)	24	Eight weeks	Group-based psycho-educational intervention focused on management of behaviors, thoughts, and emotions (see page 12 for more details)	Online delivery = lower operational costs, and more accessible for participants. Medium-term reductions in burnout (6 months post intervention)	Psychologist or psychoeducational instructor needed for delivery = higher operational costs. Preference for in-person interventions might affect trial participation.

Brinkborg et al. (2011)	19	Four weeks	Therapeutic intervention focused on stress management (see page 14 for more details).	Comparable participant group (social workers) = transferable and appropriate for frontline workers in homelessness sector Effective for participants who experience higher-levels of burnout at baseline.	Requires expert implementation = higher trial operational costs In-person delivery = may restrict participation due to more intensive engagement
McGonagl e et al. (2020)	22	Six session	Psychology-based coaching intervention (see page 17 for more details).	Phone delivery = more direct engagement with participants, and lower operating cost	Requires expert instructor delivery = higher operational costs

Additionally, informed by this literature review, there are other initiatives that organisations in the homelessness sector can start implementing internally at low cost:

- Recognise that burnout in staff is not a 'part-of-the-job' symptom.
- Prioritize the mental health of frontline workers by implementing organisational low-cost initiatives aimed at preventing burnout and promoting mental health, for example:
 - Implement passive psycho-educational initiatives by sharing information in organisational emails based on the trials suggested for replication above [24, 19, 22, 25] (if funding for the testing of these trials at the organisational level is limited).
- Start running internal surveys (at least once a year) on their frontline staff to know how staff are coping, and monitor staff wellbeing to avoid high burnout levels (refer for guidance to available online resources such as the What Works Centre for Wellbeing guidance for better workplace wellbeing³³ and the Employee Wellbeing Snapshot Survey³⁴, or refer to the Frontline Worker Survey³⁵ implemented by St Martin-in-the-Fields).

To generate more robust and specific evidence on what works to alleviate burnout and improve wellbeing among frontline workers in the homelessness sector, the government and sector bodies should prioritise the use of RCTs to inform policy decisions and support research projects that implement one or more of the recommendations made in this report.

³⁴What Works Centre for Wellbeing. (2023). *Employee wellbeing snapshot survey*. <u>https://whatworkswellbeing.org/category/work/employee-snapshot-survey/#</u>

³⁵ St Martin-in-the-Fields. (2022). *Frontline Worker Survey 2022: Early findings from our 2022 frontline worker survey.*

<u>https://www.smitfc.org/early-findings-from-our-2022-frontline-worker-survey/</u>

³³What Works Centre for Wellbeing. (2023). *Guidance for better workplace wellbeing*. <u>https://whatworkswellbeing.org/guidance-for-better-workplace-wellbeing/</u>

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Appendices

Appendix A - Search Strategy

The PICOS framework was used to define the key characteristics of studies when searching available evidence. PICOS is a tool that helps researchers define the Population, Intervention, Comparator, Outcomes, and Study design of studies during literature searches and screening. Table AI presents the PICO framework used in this literature review.

Table A1: PICOS Framework

PICO element	Description
Population	Employees - frontline workers
Intervention	Interventions delivered directly to employees to reduce burnout and improve wellbeing
Comparator	Control group (i.e. no intervention or usual care)
Outcome	Burnout measured using a validated scale
Study Design	Randomised Controlled Trials (RCT) and Quasi-experimental design

A structured search for studies was carried out using the criteria defined in the PICOS framework available in Table A1. It was conducted across peer-reviewed and grey literature sources on the following databases: APA PsycInfo, ProQuest Social Science Premium Collection and Google Scholar.

Appendix B - Included studies

Study	Short	Intervention	Theme	Burnout
Ref	Reference		(subtheme)	measure
[1]	Le Blanc et al., 2007	6-session support targeting 64 employees in oncology wards, using participatory action research approach.	Social support and/or Social connection	Maslach Inventory
[2]	Sawyer et al., 2023	9-week psychoeducational group programme delivered to 77 nurses.	Psychological (Psychoeducati onal)	Professional Quality of Life Scale (ProQoL)
[3]	Prudenzi et al., 2022	4-session Acceptance and Commitment Therapy (ACT) training programme, delivered to 98 NHS primary care staff.	Psychological (Therapeutic)	Shirom-Mela med Burnout Measure (SMBM)
[4]	Kavanau et al., 2022	3-hour nature-based intervention delivered to 56 nurses.	Social support and/or Social connection	Oldenburg Burnout Inventory (OLBI) and Mini-Z assessments
[5]	Perez et al., 2022	6-week group mindfulness programme delivered to 74 nurses.	Psychological (Therapeutic)	Professional Quality of Life Scale (ProQoL) [Burnout scale, Spanish adaption]

Table B1: Summary of included studies

[6]	Taylor et al., 2022	4.5-month access to range of brief mindfulness-based practices & psychoeducational materials for 2182 NHS staff.	Psychological (Therapeutic with some elements of psycho-educati onal)	Maslach Burnout Inventory (MBI)
[7]	Fernández -Ávalos et al., 2021	4-session group therapy (including Cognitive-Behavioural Therapy - CBT) delivered to 32 professionals working with adults diagnosed with an intellectual disability.	Psychological (Therapeutic)	Maslach Burnout Inventory (MBI) – Spanish version
[8]	Stein et al., 2021	3-session Supportive Leadership Training programme delivered to 80 childcare centre directors.	Social support and/or social connection	Maslach Burnout Inventory (MBI)
[9]	Dyrbye et al., 2023	6-session professional coaching intervention aimed at surgeons.	Coaching (subtheme: social support and/or Social connection	Maslach Burnout Inventory (MBI)
[10]	Smoktuno wicz et al., 2021	6-week self-guided internet-based psycho-educational intervention; aimed at 1575 medical professionals.	Psychological (Psychoeducati onal)	Oldenburg Burnout Inventory (OLBI)

[11]	Ng et al 2023	3-month therapeutic intervention (Body-Mind-Spirit-BMS) involving 15-minute exercises; delivered to community mental health care workers.	Psychological (Other, non-therapeuti c)	Copenhagen Burnout Inventory (CBI) [Chinese version]
[12]	Sawyer et al., 2023	8-week psychoeducational group intervention targeting 75 nurses.	Psychological (Psychoeducati onal)	Maslach Burnout Inventory (MBI)
[13]	Mistretta et al., 2018	6-week mindfulness-based resilience programme targeting 60 health care sector employees.	Psychological (Therapeutic)	Maslach Burnout Inventory - Human Services Survey (MBI-HSS)
[14]	Çelik & Kılınç, 2022	4-week laughter yoga sessions delivered to 101 nurses providing care for COVID-19 patients.	Psychological (Other, non-therapeuti c)	Maslach Burnout Inventory (MBI)
[15]	Verweij et al., 2018	8-week Mindfulness Based Stress Reduction (MBSR) intervention, delivered to 138 residents from medical disciplines	Psychological (Therapeutic)	Maslach Burnout Inventory–Hu man Service Survey (MBI-HSS) [Dutch version]
[16]	Haghighin ejad et al., 2022	4-week Mindfulness Based Stress Reduction (MBSR) intervention, delivered to 50 non-medical staff in hospitals.	Psychological (Therapeutic)	Copenhagen Burnout Inventory (CBI) [Persian version]

[17]	Zetterber et al., 2023	Communication and problem-solving skills training programme for pain and stress-related ill-health; delivered to 147 occupational health care service employees and supervisors.	Psychological (Psychosocial)	Karolinska Exhaustion Disorder Scale
[18]	Denecker e, S., et al 2013	9-month intervention targeting 581 hospital staff, aimed at implementing a care pathway to improve team-working in an acute hospital setting.	Other (Complex/Orga nisational intervention)	Utrecht Burnout Scale
[19]	Brinkborg et al., 2011	4-week stress management intervention delivered to 106 social workers.	Psychological (Therapeutic)	Maslach Burnout Inventory (MBI)
[20]	Alexander et al., 2015	8-week supervised yoga delivered to 40 nurses.	Psychological (Other, non-therapeuti c)	Maslach Burnout Inventory (MBI)
[21]	Profit et al., 2021	6-month resilience programme targeting 224 healthcare professionals and involving educational materials and practice-based learning.	Psychological (Psychoeducati onal)	Maslach Burnout Inventory (MBI) [Emotional exhaustion only]
[22]	McGonagl e et al., 2020	6-session six-session psychology-based coaching intervention delivered to	Other (Coaching, Psychological)	Maslach Burnout Inventory (MBI)

		59 primary care physicians.		
[23]	Arapovic-J ohansson et al 2018	Up to 9-sessions involving practices to enhance productivity at work; delivered to 89 healthcare workers.	Psychological (Psychosocial)	Oldenburg Burnout Inventory (OLBI) [Swedish version]
[24]	Laker et al., 2023	8-week, group-based psycho-educational intervention delivered to 173 mental health nurses.	Psychological (Psycho-educat ional)	Oldenburg Burnout Inventory (OLBI)
[25]	Linos et al 2022	6-week belonging affirmation intervention involving email exchanges between 911 dispatchers; 536 participants.	Psychological (Psychosocial)	Copenhagen Burnout Index (CBI)
[26]	Dincer & Inangil, 2021	Stress, anxiety & burnout therapeutic intervention (single session), delivered to 72 nurses who work with COVID-19 patients.	Psychological (Therapeutic)	Burnout Scale [Turkish adaption]
[27]	Ho et al., 2021	6-week Mindful-Compassion Art-based Therapy (MCAT) intervention, delivered to 56 healthcare workers.	Psychological (Therapeutic)	Maslach Burnout inventory - General Survey (MBI-GS)

[28]	Fiol-DeRo que et al., 2021 Pratt et al., 2023	 2-week psychoeducational mindfulness based intervention, delivered to 482 healthcare workers. 4-week mindfulness intervention delivered to 102 nurses working in Covid-19 wards. 	Psychological (Therapeutic) Psychological (Therapeutic)	Maslach Burnout Inventory - Human Services Survey (MBI-HSS) Maslach Burnout Inventory (MBI)
[30]	Linos et al., 2022	Priming intervention examining negative workplace interactions and positive social interactions, delivered via Facebook to 1627 physician mothers.	Psychological (Psychosocial)	Maslach Burnout Inventory (MBI)
[31]	Orsi-Hunt et al., 2023	24-week therapeutic programme aimed at developing skills and behaviours to promote wellbeing; delivered to 375 child welfare professionals.	Psychological (Therapeutic)	Maslach Burnout Inventory (MBI) [shortened, 9-item version]
[32]	Fong et al., 2022	5-day therapeutic intervention (mindful colouring) delivered to 77 nurses.	Psychological (Therapeutic)	Maslach Burnout Inventory-Hu man Services Survey for Medical Personnel (MBI-HSSMP)

[33]	Schroeder	13-hour	Psychological	Maslach
	et al., 2018	mindfulness-based	(Therapeutic)	Burnout
		programme delivered		Inventory
		to 33 primary care		(MBI)
		physicians.		