INWORK SUMMARY REPORT

SLEEP, REST & BITE

January 2023
At work, mental health problems affect one in six workers each year and are the leading cause of time off work sick. Stress, anxiety and depression are the reason for approximately half of the working days lost (Deloitte, 2020). The estimated cost to the UK was 25% higher since the start of the pandemic, up to £56 billion in 2020/21 (Deloitte, 2022).

Researchers have started to show how the workplace could be a great place to offer support and stop more serious problems developing. Different programmes, interventions and resources have been trialled in the past in workplaces to reduce mental health difficulties, but there isn’t much scientific evidence to say whether they work or not, and who for.

The Mental Health and Productivity Pilot (MHPP) is a programme funded by Midlands Engine providing mental health support and resources that are backed-up by data, affordable and can be delivered long term. Three different programmes to support workers were trialled and delivered by the University of Warwick - SLEEP, REST, and BITE.
The Programmes

SLEEP, REST and BITE are all based on **Cognitive Behavioural Therapy (CBT)**. CBT is based on the idea that thoughts, behaviours, and feelings (both emotional and physical) are all interconnected. CBT works by helping us to break unhealthy links between these elements, and uses change in one area, e.g. what we think, to lead to changes in other areas, e.g. how we feel.

**SLEEP**

SLEEP is a 6 week digital online programme based on cognitive behavioural therapy for insomnia (CBTi) and emotion regulation (which teaches us to recognise, accept, and control our emotions). Topics covered in the programme include learning about what sleep is and how it affects our bodies and minds, monitoring of sleep, sleep restriction therapy and stress management techniques. Four video conferencing sessions with a trained therapist are also included.

**REST**

REST is an 8 week programme based on cognitive behavioural therapy with tools and information designed to reduce symptoms of stress, anxiety and depression. REST is fully self-guided online and builds practical skills and techniques to help people cope with stressful situations.

**BITE**

The BITE programme is a brief, online programme of cognitive behavioural therapy for eating disorders in those who are not underweight (CBT-T). Ten weekly therapy sessions were delivered online by a trained therapist. The sessions were structured around five parts including learning about and changing eating, challenging beliefs about eating, emotional triggers for eating, looking at the connection between eating and weight, and body image.
Midlands based workers were recruited into the three studies through their employers or social media advertising.

Although SLEEP and REST both followed the same study design, the aims of the trials were different. REST was a feasibility trial, whereas SLEEP was run as an efficacy trial. This means that the REST trial was trying to answer questions about how suitable it would be to deliver the programme via employers, as well looking at how many people dropped out and completed the materials. SLEEP was run as an efficacy trial, which means it aimed to collect sufficient data in a controlled environment to be able to say how effective the intervention was in improving insomnia, depression and anxiety symptoms.

Everyone who took part was asked to answer the same set of questions (e.g. mental health related symptoms, job satisfaction, job productivity, wellbeing) before getting the treatment, after finishing the treatment, and after 1-2 months (called follow-ups).

BITE was also a feasibility study, exploring whether people would take part and stay engaged, e.g. complete all the sessions, if they got access to the therapy via their workplace. BITE also assessed how the treatment affected eating disorder, depression and anxiety symptoms, productivity, and time off work sick.
What did we find?

**SLEEP**

**DEMOGRAPHICS: WHO TOOK PART?**

**GENDER**

- FEMALE (77%)
- MALE (22%)
- OTHER (1%)

**ETHNICITY**

- WHITE 80.6%
- ASIAN 13.8%
- BLACK 2.5%
- MIXED/MULTIPLE 2.5%
- OTHER 0.6%

**INCOME**

**RELATIONSHIP STATUS**

- MARRIED 51.9%
- COHABITING 18.8%
- SINGLE 17.5%
- DIVORCED 3.75%
- SEPARATED 2.5%
- WIDOWED 1.25%

**n**

- Total = 160; Intervention = 80; Control = 80

**Age**

- Mean = 43.65 years (22-65 years)

**Total = 160**;

**Intervention = 80**;

**Control = 80**;
PRIMARY OUTCOMES

Taking part in SLEEP significantly improved sleep, depression, and anxiety symptoms

**INTERVENTION GROUP**
- 50% reduction in insomnia & depression symptoms
- 40% reduction in anxiety symptoms

**CONTROL GROUP**
- 10% reduction in insomnia & depression symptoms
- 8% reduction in anxiety symptoms
SECONDARY OUTCOMES

There were significant improvements in mental wellbeing and overall work impairment, with no significant changes in all other secondary outcomes.

INTERVENTION GROUP

11% increase in mental wellbeing

36% improvement in overall work impairment

CONTROL GROUP

3% increase in mental wellbeing

11% improvement in overall work impairment
A random sample of 21 participants were included in the qualitative analysis. A main theme: ‘Better sleep improved my life’ was found, with three other themes capturing how the programme led to the positive changes in sleep and wellbeing.

"IT WAS OVERALL POSITIVE AND I FOUND IT BENEFICIAL. I FOUND THAT I UNDERSTOOD MY SLEEP BETTER AS A RESULT OF THAT. AND IT ALSO HELPED ME WITH SOME ISSUES THAT WERE IMPACTING MY SLEEP AS WELL."

"I THINK IT’S MADE REALLY IMPORTANT IMPROVEMENTS TO MY SLEEP PATTERNS AND MY QUALITY OF LIFE AND WELLBEING IN GENERAL SO I REALLY HAD HIGHLY POSITIVE VIEWS ON THE EXPERIENCE."

"I WOULD SAY PROBABLY WITH THE SLEEP THERAPIST MADE THE MOST DIFFERENCE. IT WAS JUST SORT OF GETTING THINGS IN MY HEAD. SO, WHEN SHE WAS TALKING ABOUT LITTLE BITS ABOUT THE MODULES AS WELL, IT WAS JUST MAKING THINGS A LITTLE BIT CLEARER."

"I LEARNED HOW TO KEEP A CONSTANT, LET’S SAY, PATH AND NOT CHANGE EVERY NIGHT OR FOLLOWING MORE OR LESS SLEEP NECESSITY BUT TO RESPECT THE RULES WERE USEFUL."

"I THINK WE’VE ALL GROWN ACCUSTOMED TO DOING SO MUCH OF OUR LIVES ONLINE NOW THAT I DIDN’T REALLY HAVE MUCH OF AN ISSUE WITH IT. I DON’T THINK I COUL’VE DONE THIS ANY OTHER WAY BUT ONLINE ANYWAY"
**REST**

**DEMOGRAPHICS: WHO TOOK PART?**

- **Gender:**
  - Female (85%); Male (15%)
- **Ethnicity:**
  - White 94.2%
  - Asian 1.9%
  - Black 1.9%
  - Mixed 1.9%
- **Relationship Status:**
  - Married 48.1%
  - Cohabiting 23.1%
  - Single 17.3%
  - Separated 3.8%
  - Other 7.7%
- **Income:**
  - 10-29k
  - 30-49k
  - 50-69k
  - 70-89k
  - 90-109k
  - 110-150k
- **Total:**
  - Total = 52; Intervention = 25; Control = 27
- **Age:**
  - Mean = 41.71 years (22-63 years)
OBJECTIVE 1: WERE EMPLOYERS WILLING TO TAKE PART?

- 301 employers were contacted
- 104 employers attended a call or webinar about the trial
- 33 employers agreed to host the REST trial

OBJECTIVE 2: WERE EMPLOYEES WILLING TO TAKE PART?

- 902 people expressed interest in INWORK (SLEEP, REST, MENTOR)
- 60% completed screening questionnaires
- 74 people were invited to take part after screening
- 53 people completed the baseline questions to take part

OBJECTIVE 3: ENGAGEMENT WITH THE ONLINE CONTENT

Engagement rates of the 52 participants enrolled (1 person withdrew)
OBJECTIVE 4: HOW DID TAKING PART AFFECT SYMPTOMS OF DEPRESSION AND ANXIETY?

There were some improvements in anxiety and depression symptoms in both the intervention and control groups. However, due to the study being designed to look at feasibility, and the small number of participants in each group, the findings were not statistically significant. This means we can’t say for sure whether the difference was likely to be due to the REST treatment, or could have happened just by chance. This was the case for all other quantitative outcome measures.
A random sample of 10 people were interviewed for the qualitative analysis. Four related themes were found, which are described below with quotes.

**'This isn't a quick fix'**

"But it did actually give me some tools that when my brain was racing at night and particularly when anxiety is high, I could use some of the things that I learned to try and quell some of that and to kind of stop it from spiralling into something a bit more stronger and a bit more serious."

"So, I feel like it was for anyone who's suffering with generalised anxiety or depression or even just worry in general, I think anyone could pick that up and use it and find it very useful."

"Having it split up like that so that this week, this is what we’re going to look at, next week we’ll look at something else... that was definitely useful for me, it kind of it matches the way that I like to look at things, to split things up into smaller chunks and consider them like that."

"A part of realising when I was going through the programme, this isn't a quick fix. However, many techniques are there, it's not just a case of, oh well, I've tried that technique, ooh ka-ching it's worked and I wasn't expecting that. But, this will take a considerable amount of effort on my part, and I, as much as I say, I know why the reasons are, part of it is down to me to help fix as well though, it's not just down to them to do."
**BITÉ**

**DEMOGRAPHICS: WHO TOOK PART?**

**GENDER**
- Female (91.5%); Male (8.5%)

**ETHNICITY**
- White: 83%
- Non-White: 17%
- Other: 8.5%

**RELATIONSHIP STATUS**
- Single: 21.3%
- Married/Cohabiting: 70.2%
- Other: 8.5%

**INCOME**

- < 30K: 25%
- 30-90K: 60%
- > 90K: 15%

Total = 47

Mean = 39.74 years
PRIMARY OUTCOMES

A total of 175 participants expressed an interest, of which 109 completed the eligibility questionnaire and 47 consented to the trial.

More than half of participants (61.7%, n=29) completed the treatment. Most people who completed treatment, 79.31% (n=23) also completed the two follow-up appointments. People came to almost all of their therapy appointments (98.23%).

A ‘Participant Experiences’ questionnaire was sent a month after finishing treatment. 24 participants answered the questions and said that the treatment was acceptable, helped to reduce eating disorder behaviours, and was well tailored to their personal needs. They rated these factors from 8.50 to 9.63 out of 10.

Most participants (70.83%) said they would be more likely to attend appointments at work rather than an a clinical setting like a doctors or hospital, and 16.67% had no preference. Participants said they were able to engage better with their work, both during and after getting the therapy.
SECONDARY OUTCOMES

44% REDUCTION IN DEPRESSION SYMPTOMS

44% REDUCTION IN ANXIETY SYMPTOMS

46% REDUCTION IN ACTIVITY IMPAIRMENT

58% REDUCTION IN EATING ATTITUDES AND BEHAVIOURS (EDE-Q)

48% REDUCTION IN EATING COGNITIONS AND BEHAVIOURS (ED-15)

98% REDUCTION IN OBJECTIVE BINGES
24 participants filled in an experience questionnaire 1 month after finishing the therapy. The answers were analysed to look for common themes. Seven themes were found, which are described below with quotes from participants. Overall, the analysis suggests that therapy at work is acceptable, and can improve eating disorder symptoms, although there are some barriers.
WORK OR THE WORKPLACE AS A TRIGGER

“TIME PRESSURE MEANS NOT ALWAYS GOT TIME TO EAT IN A STRUCTURED WAY LEADING TO SNACKING/GOING WITHOUT FOOD.”

PANDEMIC & RELATED CHANGES TO WORK ENVIRONMENT

“MY BINGING GOT A LOT WORSE WHEN THE PANDEMIC STARTED. I WAS AT HOME ALONE AND I’D REGULARLY ORDER TAKE AWAYS AND BINGE. SOMETIMES EVEN AT LUNCHTIME.”

ACCESSIBILITY OF WORKPLACE THERAPY

“I WOULD NOT HAVE GONE LOOKING FOR THERAPY. THE FACT IT CAME INTO MY EMAIL BOX MADE ME STOP AND THINK. I WORK LONG HOURS AND TRYING TO FIND TIME TO GO AND SEE SOMEONE IN PERSON WOULD NEVER HAVE HAPPENED. I HAVE BENEFITED FROM THIS PROCESS IMMENSELY BECAUSE I COULD ACCESS IT IN WORK TIME.”

WORK ENVIRONMENT FACILITATED ENGAGEMENT IN THERAPY

“...BEING ABLE TO TALK TO MY DIRECT LEAD ABOUT SPENDING TIME LOOKING AFTER MY MENTAL HEALTH NOW THAT THE HOUR-LONG SESSIONS HAVE FINISHED. I CAN STILL TAKE SOME OF THAT TIME TO LOOK AFTER MYSELF.”

IMPACT OF THERAPY ON WORK

“BY CONTINUING THE HABITS AND PRINCIPLES LEARNED IN THE PROGRAMME (E.G. REGULAR MEALS AND SNACKS, TAKING BREAKS), I AM DEFINITELY A LOT MORE PRODUCTIVE AND FOCUSED WITH WORK”.

IMPACTS OF THERAPY ON THE SELF

“I HAD BETTER COPING MECHANISMS FOR WHEN THOUGHTS ABOUT MY BODY IMAGE CAME INTO MY HEAD WHICH MEANT THEY DIDN’T ‘DERAIL’ ME FOR LONG”

ROLE OF THE THERAPIST

“[THE THERAPIST] WAS SUPPORTIVE AND APPROACHABLE BUT ALSO PRAGMATIC, FOCUSED ON THE GOALS OF THE PROGRAMME AND KEPT ME ON TRACK. I REALLY FEEL THAT I AM WELL ON MY WAY TO FULL RECOVERY FROM MY EATING DISORDERS THANKS TO HER. I AM CONFIDENT THAT I WILL NEVER HAVE SUCH BAD ISSUES AGAIN.”
What's next?

**SLEEP**

- SLEEP participants were willing to take part in the programme at work and showed significant improvements across insomnia, depression and anxiety symptoms.
- The next trial could be run across the whole of the UK (rather than the Midlands only) to see if the impact is the same for different groups of people.
- We also want to understand how this sort of programme could be delivered in the future outside of a research trial, for example who should deliver the therapy, how could referrals work, is it affordable?

**REST**

- REST participants showed improvements in anxiety and depression symptoms, but due to the feasibility nature of the trial with a small number of participants, these are indicative results only.
- The feasibility stage also highlighted recruitment challenges with the study design, and let us see some changes that could help in future.
- The analysis of the REST interviews has helped us to see the strengths and limitations of the current programme, which we will use to improve the programme for the next trial.
- An adapted version of the REST trial will be run in Spring 2023, to assess the effectiveness of the intervention on improving depression and anxiety symptoms on a larger scale.

**BITE**

- BITE was found to be an acceptable and feasible intervention delivered at work for people with eating disorder symptoms who are not underweight.
- These positive results will allow us to apply for funding to run a full trial to look at the effectiveness of the therapy with a larger and more diverse group of participants.
**THANK YOU**

A final thank you to all our partner organisations and employees in the Midlands that took part in the MHPP trials. For more information, please contact the University of Warwick research team at: wmghmpp@warwick.ac.uk or visit [https://mhpp.me/](https://mhpp.me/)

**PUBLISHED PROTOCOLS**

SLEEP Protocol: [https://bmjopen.bmj.com/content/12/7/e058062](https://bmjopen.bmj.com/content/12/7/e058062)
REST Protocol: [https://bmjopen.bmj.com/content/12/12/e060545](https://bmjopen.bmj.com/content/12/12/e060545)

**REFERENCES**
