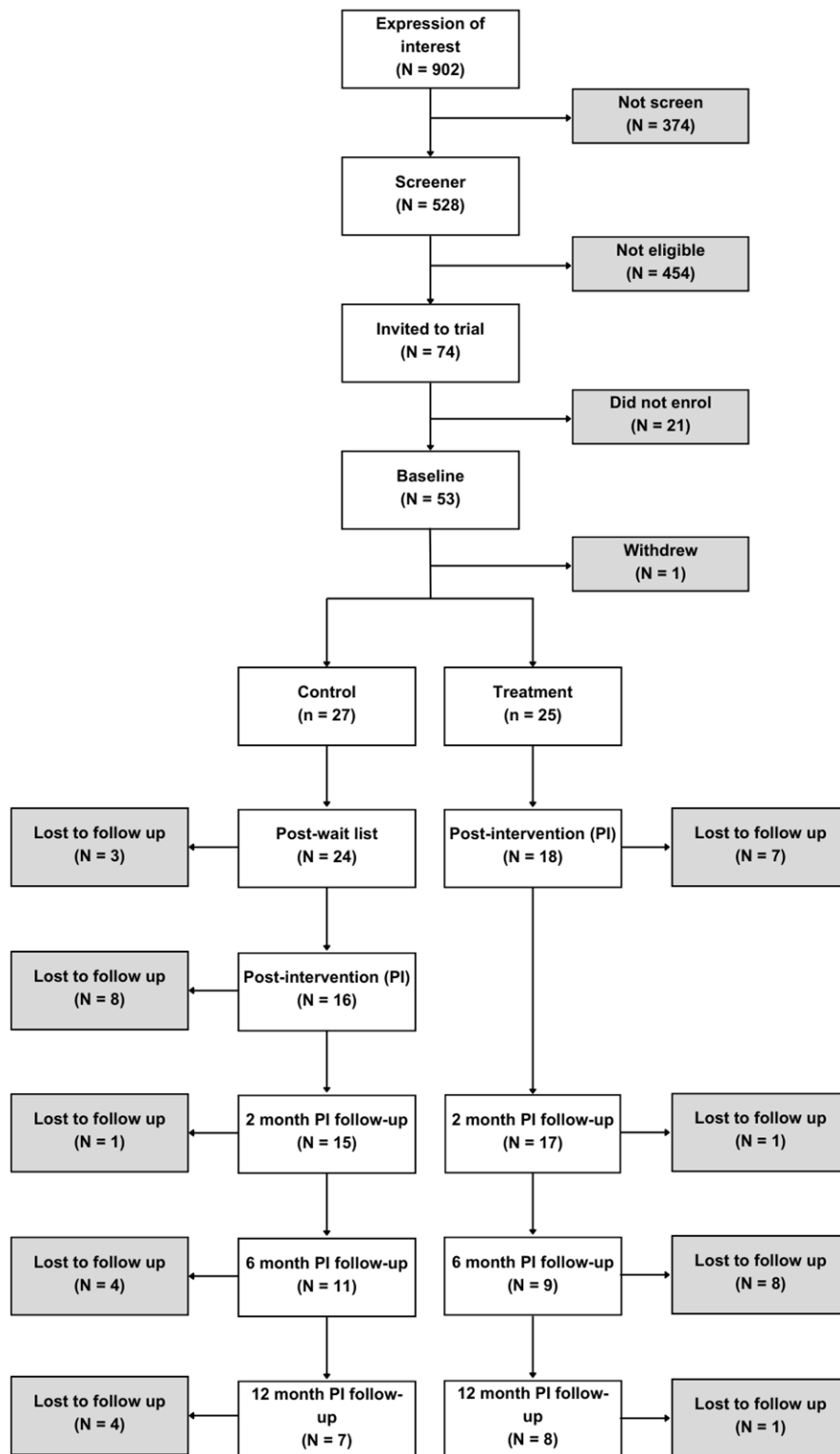


**Figure 1** CONSORT diagram from expression of interest till final follow-up outcome measure collection.



**Table 1** Baseline characteristics

<b>Variables</b>	<b>Treatment M (SD) (n= 25)</b>	<b>Control M (SD) (n= 27)</b>	<b>Significance tests for group differences at baseline</b>
<b>Demographics</b>			
Age, y	39.52 (11.85)	43.74 (11.11)	t(49.01) = 1.32, p=0.192
Sex, No. (%)			X <sup>2</sup> = 0.42, p=0.515
Women	22 (88.00)	22 (81.48)	
Men	3 (12.00)	5 (18.52)	
Ethnicity, No. (%)			X <sup>2</sup> = 3.11, p=0.375
White	23 (92.00)	26 (96.30)	
Black	1 (4.00)	0 (0.00)	
Asian	0 (0.00)	1 (3.70)	
Mixed	1 (4.00)	0 (0.00)	
Relationship status, No. (%)			X <sup>2</sup> = 4.62, p=0.328
Married	11 (44.00)	14 (51.85)	
Co-habiting	5 (20.00)	7 (25.93)	
Separated	0 (0.00)	2 (7.41)	
Single	6 (24.00)	3 (11.11)	
Other	3 (12.00)	1 (3.70)	
Hours of work	36.92 (5.71)	34.22 (7.73)	t(47.74) = -1.33, p=0.157
Education level, No. (%)			X <sup>2</sup> = 5.93, p=0.313
Doctorate	1 (4.00)	2 (7.41)	
Masters	6 (24.00)	6 (22.22)	
Bachelor	14 (56.00)	10 (37.04)	
Secondary school	3 (12.00)	2 (7.41)	
Some diploma	0 (0.00)	3 (11.11)	
Other qualification	1 (4.00)	4 (14.81)	
Income No. (%)			X <sup>2</sup> = 5.92, p=0.315
£10,000-£29,999	8 (32.00)	3 (11.11)	
£30,000-£49,999	8 (32.00)	8 (29.63)	
£50,000-£69,999	4 (16.00)	5 (18.52)	
£70,000-£89,999	2 (8.00)	8 (29.63)	
£90,000-£109,999	2 (8.00)	2 (7.41)	
£110,000-£149,999	1 (4.00)	1 (3.70)	
<b>Primary outcomes</b>			
Insomnia (ISI)	7.92 (3.34)	6.96 (3.58)	t(50.00) = -1.00, p=0.323
Depression (PHQ-9)	8.32 (4.21)	8.44 (3.67)	t(47.82) = 0.11, p=0.91
Anxiety (GAD-7)	8.28 (4.88)	9.30 (3.93)	t(46.14) = 0.82, p=0.415
<b>Secondary outcomes</b>			
Work productivity (WPAI)			
WPAI-WTM	0.65 (1.82)	0.73 <sup>a</sup> (3.49)	t(38.03) = 0.10, p=0.918
WPAI-IWW	30.40 (21.31)	31.85 (26.17)	t(49.22) = 0.22, p=0.827
WPAI-OWI	30.92 (21.09)	31.04 <sup>a</sup> (25.17)	t(48.11) = 0.02, p=0.985
WPAI-AI	32.80 (21.89)	37.78 (26.65)	t(49.33) = 0.74, p=0.464
Job satisfaction (IJSS)	2.83 <sup>b</sup> (0.32)	2.98 <sup>c</sup> (0.41)	t(20.97) = 1.05, p=0.307
Well-being (WEMWBS)	41.60 (7.71)	39.96 (7.51)	t(49.45) = -0.77, p=0.442
Quality of life (EQ-5D-5L)			
EQ-5D-5L: Overall health score	71.40 (19.17)	73.70 (14.95)	t(45.37) = 0.48, p=0.633

**Notes:** <sup>a</sup> N=26; <sup>b</sup> N=13; <sup>c</sup> N=12;

Mean values are presented with standard deviations in parentheses unless otherwise specified. Test statistics results are from *t* tests for continuous variables, and Pearson  $\chi^2$  tests for categorical variables.

**Abbreviations:** ISI, Insomnia Severity Index; PHQ-9, Patient Health Questionnaire- 9; GAD-7, Generalised Anxiety Disorders -7; WPAI, Work Productivity and Impairment Questionnaire; WTM, Work Time Missed; IWW, Impairment Whilst Working; OWI, Overall Work Impairment; AI, Activity Impairment; IJSS, Indiana Job Satisfaction Scale; WEMWBS, Warwick-Edinburgh Mental Wellbeing Scales; EQ5D, European Quality Of Life-5 Dimensions.

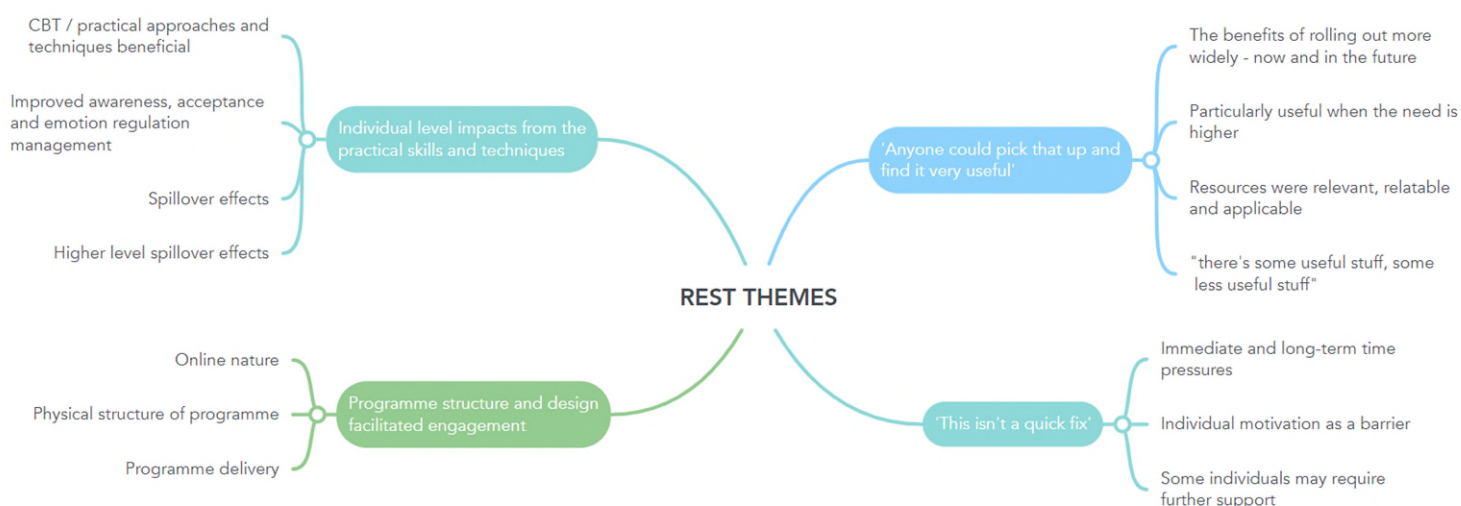
**Table 2** Outcome measure means and standard deviations at baseline and post-intervention

	Baseline N=52		Post-intervention N=42	
	M	SD	M	SD
<b>PHQ-9</b>	8.38	3.90	7.29	3.44
<b>GAD-7</b>	8.81	4.40	7.43	4.07
<b>ISI</b>	7.42	3.47	7.10	3.72
<b>IJSS</b>	2.90 <sup>a</sup>	0.37	2.90 <sup>b</sup>	0.34
<b>WEMWBS</b>	40.75	7.58	41.98	7.66
<b>WPAI-WTM</b>	0.69 <sup>1</sup>	2.77	2.67 <sup>2</sup>	8.79
<b>WPAI-IWW</b>	31.15	23.73	31.67	26.95
<b>WPAI-OWI</b>	30.99 <sup>1</sup>	23.03	33.62 <sup>2</sup>	27.96
<b>WPAI-AI</b>	35.38	24.37	35.95	26.97
<b>EQ5D – Overall Health</b>	72.60	16.97	73.50	15.00

**Notes:** <sup>a</sup> n=25, <sup>b</sup> n=18, <sup>1</sup> n=51, <sup>2</sup> n=41

**Abbreviations:** PHQ-9, Patient Health Questionnaire- 9; GAD-7, Generalised Anxiety Disorders -7; ISI, Insomnia Severity Index; IJSS, Indiana Job Satisfaction Scale; WEMWBS, Warwick-Edinburgh Mental Wellbeing Scales; WPAI, Work Productivity and Impairment Questionnaire; WTM, Work Time Missed; IWW, Impairment Whilst Working; OWI, Overall Work Impairment; AI, Activity Impairment; EQ5D, European Quality Of Life-5 Dimensions.

**Figure 2** Themes generated from qualitative interview data.



### ***Assessment of safety***

We anticipated a low risk of serious adverse events (such as death or hospitalisation) occurring during this trial, given the low base rate of negative events in the literature for digital cognitive behavioural therapy. We recorded occurrences of serious adverse events (SAEs) in this trial as resulting; in death, hospitalisation, life threatening, in persistent or significant disability or incapacity, of a congenital abnormality or birth defect or is otherwise considered medically significant by investigator. Adverse events were also a low risk during this trial, with some expected adverse events such as concentration difficulties and low mood.

To report an AE or SAE, forms were sent to the trial management team (CB, CK), who logged them in a central database for trial monitoring. All forms were logged in a central database and reviewed by the trial management team on a monthly basis, with a cumulative review of all safety information by an independent Trial Monitoring Committee (TMC). In addition, the trial management team monitored and sent the total numbers of SAEs per month to the TMC Chair – in order to expedite a safety review if more SAEs were being seen than would be expected.

Given the online nature of the intervention and little contact with participants, it is unlikely that the research team will be aware of SAE or AE unless reported by participants through contact channels such as emails.

There were no reports of adverse events reported in this study.