A redesigned training and staff support programme to enhance job retention in employees with moderate-severe depression.

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A redesigned training and staff support programme to enhance job retention in employees with moderate-severe depression

Abstract

Purpose: Closing the treatment gap in depression is vital to prevent people from losing their jobs. Delivering group-based interventions at work could reach more employees than delivering 1:1 interventions in a clinical setting.

Design: A mixed-methods exploratory sequential design with a high level of stakeholder consultation was used to redesign an interdisciplinary Work-focused Relational Group CBT Treatment Programme for moderate-severe depression. Qualitative data from focus groups and quantitative data from a small feasibility study were integrated to develop the new Training (and Staff Support) Programme (TSSP), which was fully specified and manualised in line with the Template for Intervention Description and Replication (TIDieR) for future delivery.

Findings: Focus groups identified a need for improved acceptability and accessibility of the tertiary preventative Work-focused Relational Group CBT Treatment Programme. This programme was therefore simplified for delivery by peer facilitators at the worksite as an intervention for all employees rather than an indicated/targeted intervention for only those with symptoms/risk of depression. The TSSP comprised a compulsory trauma-informed educational/experiential workshop over four days plus optional open-ended, peer-led base groups set up and run by volunteer peer facilitators.

Social implications: The worksite TSSP provides a democratic learning space and empowers employees to stay at work by self-managing their symptoms and by challenging the interpersonal dynamics and organisational structures that might precipitate and perpetuate depression.

Originality: Our intervention is fully specified and manualised with an explicit programme theory, unlike most universal worksite-based CBT programmes.

Article classification: Research Paper
Introduction

Depression and anxiety account for over half of all work-related illness and work-related sickness absences (Health and Safety Executive, 2020). An estimated 30% of the UK workforce is diagnosed with a mental health condition at some point in their lifetimes (Business in the Community, 2019). Employees with depression are at higher risk of sickness absence and they have a poor return-to-work prognosis (Ervasti et al., 2015). Many affected individuals have recurrent episodes of depression, resulting in socioeconomic and health-related sequelae including a higher risk of job loss and long-term depression-related disability (Ervasti et al., 2015, Lerner et al., 2004). Unemployment is associated with a range of health inequalities and poor wellbeing as well as stigma, social exclusion, and poverty (Elliott, 2016). Furthermore, people with depression from minority and marginalised communities may experience cumulative disadvantages and adversities (Brown et al., 2016).

Therefore, there is an urgent need to enhance job retention in employees with recurrent depression, preferably intervening before people take sickness absence. While screening can help to prevent depression in the workplace (Couser, 2008), occupational health services are generally provided to employees who are already absent and rarely offer help to employees struggling to stay at work due to mental health problems. While tertiary preventative interventions such as work-based depression programmes exist (Bond et al., 2019), they are mainly designed to accelerate return to work in symptomatic employees.

Whilst work resumption is an important aspect of job retention, many depressed employees do not take sickness absence and, if they do, they may not seek help.

Given that workplaces provide access to a large proportion of the adult population, they are ideal settings for preventative interventions targeting depression (Tan et al., 2014).

Workplaces have become important settings for mental health promotion, providing benefits to both employers and employees (Czabala et al., 2011). Despite this, services often work in isolation, with employment programmes tending to ignore health and healthcare services tending to ignore work (Francis et al., 2008). Most adults receive no, or suboptimal, care and treatment for depression (Bond et al., 2019, Cuijpers, 2015, Thornicroft et al., 2017), and existing work-focused interventions have limited impact because employees with depression face significant political, economic, healthcare, organisational, and personal barriers to treatment and job retention (Collins et al., 2004, Lammerts et al., 2016). Ultimately, delivering treatment programmes as tertiary preventative interventions at the individual level does little to close the ‘treatment gap’ in depression.

We recently tested the feasibility of a new, interdisciplinary Work-focused Relational Group CBT Treatment Programme for moderate-severe depression [redacted et al., 2021]. While the new programme showed promising immediate positive outcomes in terms of depressive
symptoms, interpersonal difficulties, and job retention, we hypothesised that redesigning this intervention to improve acceptability and accessibility would further help to enhance the utility of the intervention and therefore job retention in UK employees with moderate-severe recurrent depression. Based on a cumulative analysis of quantitative and qualitative data from the feasibility study and qualitative data from post-intervention focus groups, here we present a re-design of the Work-focused Relational Group CBT Treatment Programme, namely the new Training (and Staff Support) Programme (TSSP).

Methods

Study design and ethical statement

A multi-phase mixed-methods exploratory sequential design was adopted comprising a two-stage stakeholder consultation process (qualitative data) and an embedded pilot study (quantitative data; see redacted et al., 2021). Stakeholders were consulted before the pilot study during the review period. Purposive sampling was used to recruit participants with appropriate knowledge and experience for ten focus groups of 1-3 hours. The sample included 13 former service-users and 15 frontline practitioners and managers, most of whom had experienced group CBT in secondary mental healthcare or job retention interventions within the last two years.

Similarity criteria (such as shared experience) were used to guide the composition of different focus groups (e.g., former service users in Group A, frontline practitioners and managers in Group B, a mix in Group C). This helped to obtain a cross-section of opinions in a welcoming atmosphere fostered by common interests.

Group A considered possible components of the intervention as well as practical issues around implementation; Group B, research procedures and practical issues around evaluation; and Group C the comprehensibility of the theoretical manual and other resources and the overall helpfulness of the intervention with reference to users’ feedback and the preliminary analysis of outcomes.

The University [redacted] Research Ethics Committee, the NHS Local Research Ethics Committee (LREC) via IRAS, and the NHS Trust’s Research and Innovation department approved the study protocol. The study conformed to the Declaration of Helsinki (World Medical Association, 1996) and Good Clinical Practice (Medicines and Healthcare products Regulatory Agency, 2012). The study was indemnified by the University of [redacted]. All participants provided written informed consent.

Data analysis
The data from all stages of the study were integrated to propose ways of improving the intervention using a mixed methods data integration approach (Fetters et al., 2013, Gallo and Lee, 2015) that merged quantitative data from the feasibility study (preliminary outcomes, therapeutic alliance, and client satisfaction), qualitative data from the feasibility study (clients’ and co-facilitators’ feedback), and qualitative data from the focus groups. The joint display method (Guetherman et al., 2015) was used to integrate and interpret the merged results, and the data were further integrated through a staged narrative approach (Fetters et al., 2013). This process culminated in the re-design of the intervention as a Training (and staff support) Programme (TSSP) informed by relational group CBT.

Results

Qualitative and quantitative data from the feasibility study

The Work-focused Relational Group-CBT Treatment Programme is outlined using the Template for Intervention Description and Replication (TIDieR) checklist (Hoffmann et al., 2014) in Supplementary Table 1. Briefly, the programme consisted of (i) up to four 1:1 psychotherapy sessions; (ii) twelve work-focused, full-day, weekly group CBT sessions facilitated by a cognitive behavioural therapist and occupational therapist; and (iii) up to four optional 1:1 sessions with an occupational therapist. The quantitative results of this feasibility study conducted in eight women with moderate-severe depression are reported in redacted et al. (2021). BDI-II depression scores significantly decreased after therapy (n=8; -20.0 median change, p=0.016; 6/8 responses, 7/8 minimal clinically important differences, two remissions), and there were significant improvements in the secondary outcomes of overall psychological distress, coping self-efficacy, health-related quality of life, and interpersonal difficulties after therapy. All clients in work at the start of therapy remained in work at the end of therapy. The intervention was safe and had 100% retention.

As assessed by the Agnew Relationship Measure (ARM)-5 after each session, there were positive bonds and partnerships with the co-facilitators and confidence in the treatment. The mean client satisfaction measured by the Client Satisfaction Questionnaire (CSQ)-8 was 27.0 (SD 2.08), suggesting that clients were highly satisfied with their overall treatment.

After the programme, clients were asked to: (i) name one positive/negative thing standing out about the programme; and (ii) report whether there was anything that they thought should be included in/removed from the programme.

Most clients found talking together in a group positive, particularly for conflict resolution in the group setting and needing to participate. However, participants found the written materials very dry and that they read more like a manual for psychotherapy professionals.
than for lay people. One participant thought there were too many goals to achieve each week, and two participants found certain aspects “very repetitive” such as “going over the goals twice [in pairs and in plenary].”

**Post-intervention qualitative data from the focus groups**

Mixed focus groups were conducted and, overall, two main themes were identified for improvement: improving acceptability and improving accessibility.

With respect to improving acceptability, two themes to improve acceptability were: i) making the programme more interesting and stimulating; and ii) focusing on long-term coping. With respect to improving accessibility, three themes were identified that might improve accessibility: i) making it more understandable; ii) delivering it at the worksite; and iii) making it peer led.

**Programme re-design to create a Training (and Staff Support) Programme (TSSP) informed by relational group CBT**

Data integration from the feasibility study (preliminary outcomes, therapeutic alliance, and client satisfaction), qualitative data from the feasibility study (clients’ and co-facilitators’ feedback), and qualitative data from the focus groups suggested how the intervention could be improved (**Figure 1**). Details of the changes made to the treatment programme as a result of feedback are detailed in **Supplementary Table S2**.

The Training (and Staff Support) Programme (TSSP) informed by relational group CBT is outlined using the TIDieR checklist in **Table 2**. Briefly, the intervention was simplified so that it could be delivered by peer facilitators at the worksite, as an intervention for all employees, rather than an indicated/targeted intervention for only those with symptoms/risk of depression. The TSSP comprised a compulsory trauma-informed educational/experiential workshop over four days followed by optional open-ended, peer-led base groups set up and run by volunteer peer facilitators. For details, see **Table 2**.

Field testing of the TSSP was conducted with the local authority and Early Help workforce and found to be feasible, although there were problems in delivering the course to large teams and acceptability of the subject matter.

**Discussion**

Widespread adoption of a psychotherapeutic TSSP delivered at the worksite, ideally before employees go off sick, has the potential to close the treatment gap in depression and to transform the organisational culture. One randomised controlled trial (RCT) evaluated a universal ‘Coping with Strain’ course based on CBT delivered in group format at a worksite.
setting (Saelid et al., 2016). Unsurprisingly, baseline mean BDI-II scores were in the mild range. The intervention, which was adapted from the ‘Coping with Depression’ course but with a work focus to the content and between-session assignments, consisted of eight weekly sessions with 8-12 group members for 2½ hours plus two booster sessions in the follow-up period. This intervention was associated with a significant and sustained reduction in depressive symptoms during the course, but no work outcomes were reported. Our TSSP could similarly impact both depressive symptoms and work outcomes, a hypothesis that warrants formal testing in a prospective trial.

A large systematic review of international guidelines on workplace mental health found that prevention is not prioritised as highly as detection and treatment, and recommendations for preventative interventions tend to be delivered at the individual rather than organisational level (Memish et al., 2017). However, a ‘bits and bobs’ approach (e.g., mental health literacy courses) is unlikely to address structural and systemic factors that cause occupational stress. In comparison, our intervention was designed for employees with more severe and chronic depression and redesigned to transform the workplace culture as a way of enhancing job retention.

The operational logic (Astbury and Leeuw, 2010) of our intervention mirrors other psycho-educational courses delivered at the worksite, such as Mental Health First Aid (MHFA). However, although MHFA opens up conversations about mental health, it does not change organisational culture (Narayanasamy et al., 2018), and MFHA has not had a noticeable impact on encouraging employees to seek help (Attridge, 2012, DeFehr, 2016, Knaak et al., 2018, Morgan et al., 2018). MFHA may in fact reinforce stigma by using psychiatric diagnoses that can create a ‘them and us’ culture, with providers seen as mentally healthy and recipients as unhealthy (Corrigan, 2017, DeFehr, 2016). The ‘othering’ of people with mental health problems is also possible when managers are trained apart from employees, as if managers cannot have mental health problems. Our intervention trains managers and employees together, which may help to overcome a reported lack of trust between the two groups (Business in the Community, 2019). The redesign is consistent with several studies showing that it is possible to prevent depression via innovative methods of delivering psychotherapeutic interventions (Cuijpers and Holte, 2015, Wahle et al., 2017). There is strong evidence that workplace psychotherapeutic and universal CBT-based or psychoeducational interventions delivered at primary prevention level can prevent depression and reduce symptoms (Yunus et al., 2018).

Recruiting peer facilitators to deliver the intervention at the worksite is supported by four decades of research, which recommends that research should not attempt to tackle the disease burden by creating new models and formats, since most are equivalent in
effectiveness, but rather by ‘training people to become lay counsellors’ and scaling up
interventions (Cuijpers et al., 2017). Low-intensity psychotherapeutic interventions provided
by non-psychologists can also shorten the length of time depressed employees take off sick
(Doki et al., 2015).

The conceptual logic (Astbury and Leeuw, 2010) of our intervention mirrors to some extent
the IGLOO model (Nielsen et al., 2018). IGLOO is a conceptual framework to enhance
sustainable return to work (SRTW) in employees with mental health problems and uses
occupational health psychology theory. SRTW is an important aspect of job retention in that
some employees with depression require time off sick to recover (although some may stay at
work while symptomatic). IGLOO focuses on both work and non-work resources that enable
someone to resume work successfully. The TSSP draws on the resources of the individual
(employee), the group (co-workers), the leader (managers), and the organisational context
(workplace) to prevent relapse and recurrence of depression as a way of maintaining
employment, in contrast to interventions designed using the IGLOO model, which focus on
SRTW.

Our intervention works at micro and meso levels and therefore falls short of a multi-level
conceptualization of the relationship between the psychosocial work environment and
employee mental health (Martin et al., 2016). This framework recommends considering
macro-level factors such as the political, economic, and cultural context, meso-level factors
such as team climate and organisational environment, and micro-level factors such as
employees’ vulnerabilities and strengths when designing organisational interventions.

However, our intervention is based on the Person-Environment-Occupation model (Law et
al., 1996) as a conceptual framework for understanding how intra-personal, inter-personal,
and work factors interact to affect someone’s ‘occupational performance’ across the lifespan
to develop personalised care plans, which might compensate for this design flaw.

Since the TSSP is a combined intervention (i.e., aims to bring about change at the individual
and organisational level), it may fill a gap in research and practice. One review investigated
the mediators of change in combined vocational rehabilitation interventions for burnout
(Pijpker et al., 2020). Most of these interventions were based on different occupational stress
theories, with only one based on CBT. Overall, the interventions were effective by: 1)
involving employees in decision-making; 2) enhancing their job control and social support;
and 3) eliminating stressors in the workplace. Our intervention also targets some of the
intra- and inter-personal factors that precipitate and perpetuate moderate-severe recurrent
depression. Moreover, setting up opportunities for all employees to practise ‘the art of good
conversation’ could foster protective factors such as respect, civility, and collegiality in the
workplace.
The TSSP partially satisfies the ‘integrated intervention’ approach proposed by LaMontagne et al. (2014) by promoting mental health and addressing mental health problems regardless of cause. It is also compatible with national and international guidelines in terms of the need for mentally healthy or psychologically safe workplaces (Harvey et al., 2014, Leka et al., 2010, NICE, 2009).

A worksite training programme could create or reveal a range of tensions and conflicts which could derail its implementation (Karanika-Murray and Biron, 2015). First, psychotherapeutic interventions may meet resistance in some employees. A study of a training programme for university staff was designed to improve the capacity for ‘empathetic attunement’ (Brandão et al., 2016), a skill thought to underpin positive peer relationships between staff at all levels, but the study found there were significant individual differences in self-defensiveness in one-third of participants when asked to learn a new and unfamiliar skill. Most of these participants became less defensive as the trainers provided a secure training context.

Second, psychotherapeutic interventions are potentially triggering for some employees and this may deter organisations from investing because of the risk of vicarious liability. Moreover, although the intervention is designed as a universal preventative programme to obviate the need for disclosure, there is a risk of exposure which may inadvertently ‘out’ those with mental health problems. Thus, many employers outsource corporate health completely (Lier et al., 2019), limiting the impact of psychotherapeutic interventions on organisational culture.

Third, employees may wish to avoid taking part in any intervention which they perceive as the employer trying to ‘fix’ them. Organisational reliance on training programmes to improve employee mental health, often delivered as a superficial panacea or as an ‘antidote to uncertain times’ (Bevan and Bajorek, 2018), is likely to inculcate a sense of alienation, cynicism, and hostility rather than openness, authenticity, and compassion within workplace relations. There are often fears about hidden agendas (Higgins et al., 2012), and some employees may prefer a service that is independent, impartial, confidential, and based away from the worksite.

Finally, the construct of ‘resilience’ is problematic in this context because when employees complain about not being able to cope with a high workload, the problem is located in them due to an apparent lack of ‘resilience’ for which they need training to develop. But by ‘coping’ with the situation, employees may be tacitly legitimising working practices that are unreasonable. As noted by (Saltmarsh, 2016), the ‘stress-free life [is seen] as the responsibility of the individual, even though it may be the institution itself that produces the stress being experienced’.
Therefore, worksite training programmes need to be set up with the same thorough preparation as treatment programmes delivered in clinical settings. Nevertheless, redesigning our tertiary individual-level treatment programme as a primary organisational-level TSSP has the potential to enhance job retention in all employees, particularly those vulnerable to relapse and recurrence of depression.

**Limitations**

We invited stakeholders to consider the results from the feasibility study, but the conclusions from this study needed to be treated as partial and non-generalisable due to a very small purposive sample; a single location; the possibility of selection or relationship bias; and because the context for the study may be very different to other clinical, worksite, or community contexts. However, this methodological weakness was compensated for through data integration from all stages of the research. Data integration did not use blinding, but the risk of analytical or confirmation bias was mitigated by a high degree of research governance: the study was closely supervised by a senior clinician and academic, ensuring robustness of the interpretations of the findings.

**Conclusions**

Here we present a novel TSSP informed by relational group CBT for employees of health and social care organisations, paving the way for formal quantitative testing of its efficacy. The intervention design and the programme theory are unique because they were developed in consultation with stakeholders to identify active ingredients and mechanisms of change. Both the TSSP are fully specified and manualised in line with the TiDIER checklist and guidance so that they can be delivered with fidelity in any future trial.

**References**


Guetterman, T., Creswell, J. W. and Kuckartz, U. (2015), "Using joint displays and MAXQDA software to represent the results of mixed methods research", *Use of visual displays in research and testing: Coding, interpreting, and reporting data*, pp. 145-175.


Health and Safety Executive (2020), "Health and safety at work: summary statistics for Great Britain 2020".


World Medical Association (1996), "World Medical Association Declaration of Helsinki".


**Figure Legend**

Figure 1. Integration of the data using the joint display method (Guetterman et al., 2015) to improve the intervention.
<table>
<thead>
<tr>
<th>BRIEF NAME</th>
<th>WHY</th>
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<tbody>
<tr>
<td>1 Provide the name or phrase that describes the intervention</td>
<td>A Training (and Staff Support) Programme (TSSP) informed by relational group CBT for employees of health and social care organisation, and others who offer services to people with complex needs.</td>
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<td>WHY</td>
<td>There is a lack of knowledge about job retention interventions that aim to improve employees’ communication and interaction skills in high-stress occupations such as nursing, teaching, and social work and whether they have an impact at individual, organisational, and service-user levels.</td>
</tr>
<tr>
<td>2 Describe any rationale, theory, or goal of the elements essential to the intervention</td>
<td>This intervention is designed to help employees gain knowledge about, skills to manage, and positive attitudes towards stress and trauma and to enhance relational ways of working. It targets dysfunctional communication and interaction patterns and maladaptive coping frequently seen in people with complex needs. Peer-led ‘Base Groups’ for staff provide emotional and practical support and a psychologically safe environment where new ways of coping can be developed. The goals of the intervention are improved clinical, inter-personal, and occupational outcomes for employees and service users.</td>
</tr>
<tr>
<td>WHAT</td>
<td>For employees, there is a range of educational resources including a manual, DVDs, and recordings. There is a range of educational resources and a manual. These can also be used in direct work with families. For workshop facilitators, there are PowerPoint presentations which give clear details for the first four sessions and which explain the approach. For ‘Base Group’ peer facilitators, there are suggested session formats and handouts.</td>
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<tr>
<td>3 Materials: describe any physical or informational materials used in the intervention, including those provided to clients or used in intervention delivery or in training of intervention providers. Provide information on where materials can be accessed (such as online appendix, URL)</td>
<td>The preparation process for the educational workshop involves a 1:1 meeting with the workshop facilitator to orientate employees about the programme and to screen for any mental health problems and current stressors using CORE-OM and the HSE risk tool. The Coping Self Efficacy questionnaire will identify what coping strategies the employee typically uses. The employee is given the manual and contact details of the workshop facilitator.</td>
</tr>
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</table>
All employees undertaking the training programme are asked to sign a confidentiality agreement.

The educational workshops comprise four full day sessions over four weeks with assignments prescribed before / between / after each session. The workshops start with ice breakers / warm up games to reduce anxiety and accelerate group cohesion. The workshops are mainly used to socialise members to the relational ways of working model; to provide educational material via didactic presentations, videos, and experiential exercises based on adult learning principles; and to promote self-disclosure and feedback processes between employees. This involves presentation of information about stress and basic neuroscience, the relevance of trauma, dysfunctional personal and inter-personal coping styles, and opportunities to practice skills in vivo. Facilitators use a range of strategies such as reciprocating pairs, small groups, and plenary sessions to orientate workshop members to take on an active role in their own learning and also to take an active role in other employees’ learning.

Following completion of the four sessions, another 1:1 meeting with the workshop facilitator is arranged to de-brief the employee and to offer feedback about their participation.

All employees who have completed the educational / experiential workshops will be invited to form or join a Base Group of between 6-8 members who commit to attend reliably for 2 hours on a weekly / fortnightly / monthly basis. Membership can be agreed as part of employees’ performance appraisals or personal development plans.

Each Base Group has a stable membership of between six to eight people who make a commitment to meet regularly for no less than 12 months. At each one-year anniversary, the members may decide to close the group, to split in half to form two new groups inviting other staff members to join, or to continue with the existing membership for another 12 months.

Each session starts with 30 minutes reflection time when group members prepare a worksheet at the beginning of the session about something they have found stressful, upsetting, or disturbing between sessions which may be a work-related or a personal issue. Members work in pairs to build understanding of their triggers, automatic stress reactions, helpful or unhelpful coping strategies, for example. In a plenary slot, members summarise what their partner disclosed and then the group as a whole decides who might need more time to talk about what has happened and what might be helpful. Group discussion for the next 60 minutes focuses on processes such as re-appraisal, re-attrition, and re-processing. Before the end of the session, members complete their worksheet outlining how they could cope in a more adaptive way with any current stressors. These commitments are shared with others in the final 30 minutes before the session ends. If anyone requires additional support between sessions, this can be negotiated and agreed. The main goal of this group is to generate self-awareness and self-efficacy.

**WHO PROVIDED**

5 For each category of intervention provider (such as psychologist, nursing assistant), describe their expertise, background, and any specific training given

The intervention will initially require qualified psychotherapists / psychologists or other experienced mental health practitioners to facilitate the workshops and to support employees in setting up and running the peer-led Base Groups (which could involve attending the first 4 groups). The intervention involves a ‘train the trainers’ approach, as all components will be undertaken by employees eventually as they gain basic CBT concepts and skills. Base Group peer facilitators will have on-going monthly supervision with a psychological therapist. These volunteers will also have the opportunity to co-facilitate further educational / experiential workshops, and in time run them on their own.
### HOW

6 **Describe the modes of delivery (such as face-to-face or by some other mechanism, such as internet or ‘phone) of the intervention and whether it was provided individually or in a group**

The main mode of delivery is face-to-face workshops with some 1:1 briefing and de-briefing sessions. Contact via email and telephone with members of the project team would be available for troubleshooting purposes.

Employees accessing a Base Group may negotiate additional support by telephone or text between sessions.

### WHERE

7 **Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features**

The 1:1 briefing and de-briefing sessions will be conducted in suitable accommodation such as small meeting rooms. Privacy and confidentiality would be essential. The educational / experiential workshops should be conducted in suitable accommodation such as medium to large meeting rooms within buildings used by NHS or LA teams, or other free community venues. It is important for the room to be the same for every session and for there to be no interruptions. Facilities such as lifts and accessible toilets would be required.

A PowerPoint projector would be required and agreement within local teams to photocopy handouts. Refreshments would be dependent on what the facilitators could feasibly arrange but should ideally include lunch.

The Base Group sessions should be conducted in suitable accommodation such as small to medium meeting rooms within buildings used by NHS or LA teams or other free community venues. It is important for the room to be the same for every session and for there to be no interruptions. Facilities such as lifts and accessible toilets would be required.

Refreshments would be dependent on what the facilitators could feasibly arrange but should ideally include a cold or hot drink.

### WHEN and HOW MUCH

8 **Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity, or dose**

The intervention comprises one 1:1 orientation / screening session of one hour duration, four full day weekly workshops, and an optional weekly / fortnightly / monthly Base Group (depending on how frequently the group members what to meet).

Preparation for the intervention comprises one 1:1 briefing before the workshops and one 1:1 de-briefing session of up to 1 hour duration each session.

The workshops comprise four weekly full day sessions over 4 weeks with up to 12 participants.

The peer-led Base Group comprises one x 2 hour session on a weekly / fortnightly / monthly basis for minimum 12 months.

Over 12 months, the intervention will reduce from high intensity with psychotherapists / psychologists heavily involved in running the programme to low intensity as peer facilitators working towards accreditation take over running the TSSP under continuing supervision.

### TAILORING
**If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when and how**

The educational / experiential workshops should be mandatory to help all employees gain knowledge about, skills to manage, and positive attitudes towards stress and trauma.

The intervention may be tailored in response to employee need, e.g., the provision of work-focused or personal feedback using the HSE checklist or CORE-OM or the recommendation to join a peer-led Base Group, for example.

**MODIFICATIONS**

**If the intervention was modified during the course of the study, describe the changes (what, why, when and how)**

The intervention has been substantially modified from a tertiary preventative Treatment Programme to this primary preventative Training (and Staff Support) Programme. This means that the original intervention has split into two components: 1) four weekly educational / experiential workshops, and 2) a follow-up weekly peer support group.

**HOW WELL**

**Planned: if intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies were used to maintain fidelity, describe them**

Before and after each educational / experiential workshop, time should be set aside for shared reflection with both co-facilitators using the competency checklist.

Any problems or concerns can be addressed in their own line management supervision or with members of the project team. Live supervision can be used to observe the co-facilitators’ practice *in vivo*, to verify their competence, and to evaluate fidelity to the model through the use of the competency checklist as above. Quality assurance will be achieved over time through a process of peer evaluation by employees accredited as peer facilitators. Before and after each group session, time should be set aside for individual reflection by the facilitator using the competency checklist.

**Actual: if intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned.**

Field testing of the Training Programme has taken place with the Local Authority and Early Help workforce and found to be feasible, although there were problems in delivering the course to large teams and acceptability of the subject matter.
1. Introduce new concepts
2. Use case scenarios
3. Use experiential teaching techniques
4. For clients
5. For practitioners
6. Warn people it might make them feel worse at first
7. Revisit skills
8. Provide crisis support

DELIVER IT AT THE WORKSITE

11. Might prevent work-related stress
12. Could come under 'health & safety'
13. Everyone in the workplace needs more knowledge and skills about mental health
14. Others can identify / trust more in a peer
15. Might be good for one's own recovery

RE-DESIGN

Make it more stimulating and interesting
Make it more understandable

Focus on coping over the long-term

Make it peer-led
### SUPPLEMENTARY MATERIALS

#### Supplementary Table S1. The Work-focused Relational Group CBT Treatment Programme (TIDier compliant).

<table>
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<td>A work-focused relational group-CBT Treatment Programme for employed people with moderate-severe recurrent depression.</td>
</tr>
<tr>
<td><strong>WHY</strong></td>
<td></td>
</tr>
</tbody>
</table>
| **2** Describe any rationale, theory, or goal of the elements essential to the intervention | There is a lack of knowledge about indicated work-focused clinical interventions at the tertiary level (i.e., treatment and relapse prevention) to promote job retention.  
The intervention is based on the inter-personal theory of depression. It targets dysfunctional communication and interaction patterns frequently seen in people with depression that predict relapse and recurrence.  
Group psychotherapy provides an activating environment where new skills can be acquired, consolidated, and applied with the benefit of *in vivo* behavioural rehearsal, corrective peer feedback, contingent reinforcement, emotional co-regulation, and stimulus discrimination.  
The goals of the intervention are improved clinical, inter-personal and occupational outcomes. |
| **WHAT** |  |
| **3** Materials: describe any physical or informational materials used in the intervention, including those provided to clients or used in intervention delivery or in training of intervention providers. Provide information on where materials can be accessed (such as online appendix, URL) | For clients there is a range of psycho-educational resources including a manual, DVDs, and recordings.  
For therapists there are PowerPoint presentations which give clear details for the first four sessions which explains the approach.  
All of these materials are available at [www.group-CBT.com](http://www.group-CBT.com). |
| **4** Procedures: describe each of the procedures, activities, and/or processes used in the intervention, including any enabling or support activities | The assessment and formulation process involves up to four 1:1 sessions undertaken by a Cognitive Behavioural Therapist.  
In the first session, clients complete a Family History questionnaire, Screening Checklist, Baseline Activity Tracking Diary, and a Crisis Plan.  
Clients are given some printed Information about depression, and a letter for their employer about the programme.  
Each client is asked to identify someone who will provide on-going support for the therapy outside of the session and to invite them to one of the assessment sessions. This person’s perspective is sought about how depression affects their relationship, and they are asked to complete the |
Impact Message Inventory.

A summary of the assessment is written in the form of a letter to the client, which includes a diagram depicting an ideographic formulation of how recurrent depression is perpetuated by behavioural excesses or deficits which result in dysfunctional communication and interaction patterns at home and / or work. A treatment plan is agreed using a problems / goals format. One of the goals must specifically relate to job retention or return-to-work.

All group members sign a confidentiality agreement with behavioural guidelines made explicit to safeguard members’ welfare.

The group psychotherapy programme comprises twelve full-day sessions over 12 weeks with prescribed homework after each session and written progress reports provided about the last session at the beginning of the next. The first four sessions all start with ice breakers / warm up games to reduce anxiety and accelerate group cohesion. They are mainly used to socialise members to the treatment model, to provide psycho-educational via didactic talks, videos and experiential exercises based on adult learning principles, and to promote self-disclosure and mutual trust between members. This involves presentation of information about RD, the relevance of trauma, and dysfunctional personal and inter-personal coping styles. Group facilitators use a range of strategies such as reciprocating pairs, small groups, and plenary sessions to orientate group members to take on an active role in their own therapy, and also to take an active role in other group members’ therapy.

During the next eight sessions, group members are given an in vivo behavioural goal (e.g., ask someone for support, disagree with someone, offer an apology, or give someone a compliment), and other members guess what the person was trying to achieve at the end of the session.

Each group member can request up to four 1:1 sessions with the Occupational Therapist outside of the group sessions with a job retention / return-to-work focus. This may involve contact with the workplace, human resources, or Occupational Health services.

Each group member is offered up to two 1:1 sessions with a therapist if required during the course for the purposes of crisis resolution at home / work.

Group members also prepare a worksheet at the beginning of the session about an inter-personal situation with a significant other (at home / work) that they found challenging during the preceding week. Members work in pairs to build understanding of what each person did / said, as well as each person’s thoughts and feelings. Different perspectives are encouraged in a re-processing plenary slot, with the aim of developing communication and interaction skills, as well as empathic concern for the significant other. Group discussion is focused on how a stress-inducing dynamic can change into a stress-reducing dynamic by a process of reparation. Learning may be enhanced using role play or the “empty chair” technique.

Each session also involves “small group” facilitated discussion, when the whole group splits into two halves for more intense psychotherapeutic work on individual goals / behavioural experiments / journal reflection for example depending on the individual’s needs.

Members choose an activity in advance and take turns (one for each of the last eight sessions) for either “Telling my Story” (presenting information about themselves and their recovery journey in whatever form they wish to) or “The Hot Seat” (asking other group members to give honest feedback and observations about the person using a worksheet based on inter-personal skills and strengths).

At lunchtime, group members are given a “Teamwork Challenge”, which consists of planning a celebratory event for the end of the programme together. Time is given after the lunchtime to reflect on how each member is engaging with this exercise and with unstructured social contact and how this relates to their individual work situations.
All sessions include time for goal review and goal setting, with other group members encouraged to provide feedback and reinforcement as appropriate.

In session 11, group members are given a Discharge Plan worksheet to complete prior to the last session, and in session 12, group members complete a Relapse Prevention Plan. They are also invited to write a post card addressed to themselves outlining what they have achieved in therapy and including motivational affirmations. The post card is sent to each member by the therapists four weeks after the last session.

A further 1:1 session (with the significant other if appropriate) is offered in the week following completion of the intervention to discuss the Discharge Summary, which is written in the form of a letter to the person’s referrer and GP reporting on progress towards goals with outcome measures.

<table>
<thead>
<tr>
<th>WHO PROVIDED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5</strong> For each category of intervention provider (such as psychologist, nursing assistant), describe their expertise, background, and any specific training given</td>
</tr>
<tr>
<td>The intervention is delivered by a qualified CBT group psychotherapist and a qualified Occupational Therapist. Both should have significant experience in secondary care mental health service provision. Training in co-facilitation using behavioural and inter-personal process principles should be provided.</td>
</tr>
</tbody>
</table>

| HOW |
| **6** Describe the modes of delivery (such as face-to-face or by some other mechanism, such as internet or ‘phone) of the intervention and whether it was provided individually or in a group. |
| The main mode of delivery is face-to-face group psychotherapy with additional individual sessions. Group members are also encouraged to contact the therapists by telephone, text, or email between sessions if the intervention has triggered distress or if they are uncertain about any aspect of the programme. They are informed that this contact should not be used as an out-of-hours emergency service. They are also informed not to expect an immediate reply and not to ring overnight or at weekends. |

| WHERE |
| **7** Describe the type(s) of location(s) where the intervention occurred, including any necessary infrastructure or relevant features |
| The 1:1 sessions are conducted in suitable accommodation, such as within an outpatient or community mental health service. A PowerPoint projector is required and capacity to photocopy handouts. The group psychotherapy programme takes place in a large room with a break-out room, with facilities for refreshments and opportunity for unstructured social contact between group members. |

| WHEN and HOW MUCH |
| **8** Describe the number of times the intervention was delivered and over what period of time including the number of sessions, their schedule, and their duration, intensity, or dose |
The intervention comprises twelve full day weekly group sessions over a period of 3 months. In addition, up to four 1:1 weekly or fortnightly assessment sessions of one hour duration, up to two 1:1 crisis resolution sessions of one hour duration (as required), one 1:1 discharge session of one hour duration, and up to four 1:1 Occupational Therapy session of up to 3 hours duration per group member.

**TAILORING**

9. **If the intervention was planned to be personalised, titrated or adapted, then describe what, why, when and how**

The intervention is individually tailored through the optional addition of 1:1 sessions for crisis resolution, Occupational Therapy, and carer support.

**MODIFICATIONS**

10. **If the intervention was modified during the course of the study, describe the changes (what, why, when and how)**

N/A

**HOW WELL**

11. **Planned: if intervention adherence or fidelity was assessed, describe how and by whom, and if any strategies were used to maintain fidelity, describe them**

Before and after each group session time was set aside for briefing and de-briefing with both co-facilitators using a group CBT competencies checklist.

Live supervision included the Acting Head of the CBT Service attending 3 group sessions for one hour each time to observe the co-facilitators’ practice *in vivo*. This live supervision was intended to evaluate fidelity to the model through the use of the competencies checklist as above.

12. **Actual: if intervention adherence or fidelity was assessed, describe the extent to which the intervention was delivered as planned.**

The intervention was delivered per protocol and found to be feasible, although there was a low rate of recruitment because this intervention was delivered as a Treatment Programme in a clinical setting and relied on referrals from practitioners.

Live supervision only took place on one occasion due to competing demands on the time of the Acting Head of the CBT Service.
### Supplementary Table S2 – Changes made to the new intervention as a result of feedback

<table>
<thead>
<tr>
<th>Concern expressed</th>
<th>Suggested changes</th>
<th>Changes made</th>
<th>Staff</th>
<th>SU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough information about thinking styles.</td>
<td>Incorporate more basic cognitive restructuring components.</td>
<td>Use concept of primary and secondary appraisals derived from coping process theory and dual processing theory.</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Confusing if concepts are only presented in written form or lecture.</td>
<td>Elaborate concepts / provide clear explanations using case studies, examples from real life, personal</td>
<td>Use adult learning techniques and experiential exercises; pair work and small group discussion (“fleshing it out”).</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>scenarios in the session.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of technical / academic terminology.</td>
<td>Make it less complicated, less dense, explain fewer ideas more fully, use less technical language;</td>
<td>Present ideas using diagrams and more accessible language in the manual with fewer concepts provided, i.e., focus mainly on inter-personal behaviour, and use of language from “stress management” literature.</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>simplify how the concepts are described and depicted.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Could be boring and off-putting.</td>
<td>Present concepts in a more interesting, stimulating and engaging way; provide less information in a</td>
<td>Use lots of different activities to energise participants and make learning more fun; notes for facilitators added to 4 x PowerPoint presentations with notes on how to explain concepts in an accessible way.</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>clearer way using illustrations / animations / experiential / face-to-face in the group.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too many different potentially conflicting ideas (“conceptually not quite there yet”).</td>
<td>Work at further conceptual integration or only focus on a few concepts.</td>
<td>Rely on group process components to convey concepts implicitly (versus explicitly) such as inter-personal reciprocity and emotional co-regulation.</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Reading manual as it stands could be exhausting if given out at the beginning of</td>
<td>Give manual out at the end of the programme with some between-session reading / tasks.</td>
<td>Make manual look more colourful and break up into digestible chunks so participants are encouraged only to read certain sections before or after specific sessions.</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>the course (“I was getting a bit worn out”).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possibility of crisis and relapse prevention (“getting worse before you get better”,</td>
<td>Provide participants with relevant information about who to contact if they feel worse.</td>
<td>All clients developed personalised crisis and relapse prevention plans using coping process theory.</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Using inter-personal theory of depression may result in guilt and self-blame (“go back to square one”).</td>
<td>Support to make links between what person says / does and what others say / do; use compassionate feedback to improve awareness of how one’s behaviour impacts on others.</td>
<td>Brief and debrief interactive exercises carefully to ensure all participants have a positive experience.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Using role play could be unhelpful if one person is using therapist role “in an aggressive manner”.</td>
<td>Support to make links from “there &amp; then” with “here &amp; now”</td>
<td>Provide 1:1 assessment and formulation; treatment plan with personalised problems / targets.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Not enough processing time between sessions if they were delivered more intensively, i.e., every day, twice-weekly.</td>
<td>Sessions to be full day delivered as weekly sessions</td>
<td>Consideration given to frequency matching the intensity to participants’ needs / capacities.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Too many goals and between-session assignments.</td>
<td>Prescribe fewer goals and between-session assignments.</td>
<td>Goal-setting process simplified and personalised.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>DVDs didn’t work on some home computers; too much information if watched all at once.</td>
<td>Watch DVDs in the group, space them out.</td>
<td>DVDs watched together 2 per session with discussion.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Treatment Programme delivered in clinical setting is remote from the workplace.</td>
<td>Use it as a workplace preventative Training Programme, facilitated by peer mentors and / or OH staff.</td>
<td>Development of trauma-informed educational / experiential workshop using ideas and materials from sessions 1-4.</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Some people may need more support after the Treatment Programme has been completed, if improvement in symptoms decays over time.</td>
<td>Make programme longer.</td>
<td>Development of asset-building peer support Base Group using format from sessions 5-12.</td>
<td>✓ ✓</td>
<td></td>
</tr>
<tr>
<td>Some people may not understand the concept of self-help and may expect a “miracle cure” without making an active effort to change; some significant others may not know how best to support the person with depression.</td>
<td>Involve people who provide support / carers more (e.g. professional and personal).</td>
<td>Invite carers to attend educational / experiential workshop sessions with / without person with depression.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Some people may be triggered by confrontational or challenging feedback if it happens when you have a blip”).</td>
<td>Use compassionate feedback to improve awareness of how one’s behaviour impacts on others.</td>
<td>Emphasise non-blaming approach understanding how people react</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>disconfirms their core beliefs. on others. automatically with perceived threat if they have experienced trauma, i.e., maladaptive personal and inter-personal coping styles.</td>
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</tr>
<tr>
<td>All of the clients had experienced childhood trauma and may have had traits of personality disorder. Need more information on how trauma affects people, and what they can do to cope with triggers. Screen for trauma and traits of personality disorder at baseline to identify potential triggers in the 1:1 and group settings.</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>