Collaborative case management to aid return to work after long-term sickness absence: a pilot randomised controlled trial

Cassandra Kenning,[1]* Karina Lovell,[2] Mark Hann,[1] Raymond Agius,[3] Penny E Bee,[2] Carolyn Chew-Graham,[4] Peter A Coventry,[5] Christina M van der Feltz-Cornelis,[6] Simon Gilbody,[5] Gillian Hardy,[7] Stephen Kellett,[7] David Kessler,[8] Dean McMillan,[5] David Reeves,[1] Joanne Rick,[1] Matthew Sutton[1] and Peter Bower[1]

[1]Division of Population Health, Health Services Research and Primary Care, University of Manchester, Manchester, UK
[2]School of Nursing, Midwifery and Social Work, University of Manchester, Manchester, UK
[3]Centre for Occupational and Environmental Health, University of Manchester, Manchester, UK
[4]Primary Care & Health Sciences, Keele University, Keele, UK
[5]Department of Health Sciences, University of York, York, UK
[6]Social and Behavioral Sciences, Tilburg University, Tilburg, the Netherlands
[7]Department of Psychology, University of Sheffield, Sheffield, UK
[8]School of Social and Community Medicine, University of Bristol, Bristol, UK

*Corresponding author cassandra.kenning@manchester.ac.uk

Declared competing interests of authors: none

Published January 2018
DOI: 10.3310/phr06020

Scientific summary

The Case Management to Enhance Occupational Support (CAMEOS) study

Public Health Research 2018; Vol. 6: No. 2
DOI: 10.3310/phr06020

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Scientific summary

Background

Despite relatively high levels of employment among working-age adults in the UK, there is still a significant minority who are off work with ill health at any one time (so-called 'sickness absence'). Figures for the UK show that 131 million days were lost as a result of sickness absence in 2013. Although this is down from around 175 million days before the turn of the century, sickness absence still has huge economic implications.

More than 2.5 million people claim health-related benefits (Incapacity Benefit and Employment and Support Allowance – 2013/14 data), costing the government £12B a year. Furthermore, employers pay around £9B per year in sick pay and associated costs.

Office for National Statistics figures show that, in 2013, minor illness (e.g. colds and coughs) accounted for around 27.4 million days lost, typically short-duration absences. The greatest numbers of days lost were attributable to musculoskeletal problems (30.6 million days of work lost) and mental health problems such as stress, depression and anxiety (15.2 million days of work lost).

People with long-term health conditions can and do work. Around one-quarter of the 28 million people in work in the UK have a long-term condition. Employees who suffer significant periods of sickness absence are at increased risk of longer-term problems, with profound implications for their long-term health, wealth and social inclusion.

The body of evidence for intervention with people on, or entering, long-term sickness absence is growing, but results appear mixed. There is good evidence for collaborative care models in the care for long-term conditions and, as stated previously, around 25% of the working population currently have long-term conditions. Collaborative care in an occupational health (OH) setting has been trialled in the Netherlands and the USA but a definitive trial has not taken place in the UK, which has a different health-care system.

This study aimed to adapt a collaborative care model for use in OH, to conduct a pilot study to see how it might work in this setting, to determine if it is feasible to recruit and deliver the new model to working adults on longer-term sickness absence and to determine if it is acceptable to both employees and employers.

Objectives

1. Phase 1: development
   Adapt a collaborative case management intervention to the needs of UK employees, in a range of occupations and organisations, who are entering or experiencing long-term sickness absence.
2. Phase 2: internal pilot
   Conduct a pilot study to test:

   i. recruitment of employees on long-term sickness absence to the trial
   ii. delivery of the intervention in an OH setting
   iii. adherence and acceptability among employees on long-term sickness absence
   iv. appropriateness of inclusion criteria and outcome measures
   v. evaluation of the rate of return to work in those receiving a collaborative case management intervention compared with those receiving care as usual.

Methods

Phase 1

A scoping review was conducted to look at current evidence on interventions for long-term sickness absence. Some of the key points from the review were that (a) most studies had been conducted with people with relatively short periods of sickness absence (i.e. 2–12 weeks), (b) studies that included a workplace component identified it as a key aspect for successful intervention, (c) most studies agreed on the need for consensus-based action/care plans and (d) many studies reported low adherence rates. These findings were taken to a consultation meeting to discuss intervention development and pilot trial methods.

A collaborative care intervention was developed, comprising a client-centred approach which included partnership working and proactive follow-up with integrated communication and care between the case manager, client, general practitioner (GP) and employer. A participant handbook was developed, which contained manualised cognitive–behavioural therapy-based psychological interventions, as well as a supporting manual for the case managers.

Adapted from an existing psychological intervention trialled previously in primary care, the intervention is client defined and goal orientated to improve mental and physical health outcomes. Within this framework each employee was sent a specially developed workbook and offered a client-centred assessment followed by a choice of intervention(s), including the psychological intervention (manualised), signposting and/or workplace facilitation.

Phase 2

A pilot randomised controlled trial was conducted.

Design

The study was a two-arm randomised controlled trial evaluating a collaborative case management intervention for employees who have been on long-term sickness absence. The collaborative care intervention was delivered by existing OH staff with supervision from the research team.

Setting

The trial was conducted with two collaborating sites in the UK. One was a large company providing OH support for a number of client companies. The second was a non-profit social enterprise providing free support and advice on sickness absence to the community.

Participants

Employees experiencing, or entering, long-term sickness absence were identified using routine recording systems in their employing organisations or through their GP. Employees with long-term sickness absence were defined as those who have been off work for at least 4 weeks or who have a fit note from their GP for at least 4 weeks and up to 12 months.

Participants had to report a minimum level of baseline distress, defined as a score of 11 or more on the Clinical Outcomes in Routine Evaluation Outcome Measure (CORE-OM) of general health and well-being. A minimum level of distress on the CORE-OM was required to ensure that there was significant room for improvement in outcomes associated with the intervention.

Recruitment

The OH provider was asked to recruit companies from the existing client list to take part in the study, and employees of those companies were then invited to take part in the trial. To recruit to the social enterprise [Fit for Work (FFW) team], primary care patients from the catchment area were invited to take part in the trial via their GPs.

Recruitment was via mailed invitation, with employees opting in by responding to the trial team.

Randomisation

Participants were randomised either to the collaborative case management intervention or to usual care. Participants were randomised by the research team via a central telephone-based system provided by a Clinical Trials Unit. The method of randomisation was permuted block within strata, with block sizes themselves varying randomly between prespecified limits. There were two stratification factors: partner organisation (OH provider, FFW team) and baseline CORE-OM score (11.0–17.9, 18.0–23.9 and 24.0–40.0).

Intervention

Participants received the specially developed participant handbook, the use of which would be supported by the case managers. The intervention involved core aspects of published 'collaborative care' models, including:

- a 60-minute client-centred assessment by telephone
- collaborative goal-setting (to agree on what support is needed)
- evidence-based low-intensity interventions (such as behavioural activation, problem-solving and cognitive restructuring)
- effective liaison and information sharing with key health-care personnel such as GP and other primary care providers (where appropriate and with patient consent).

Following the assessment session, the intervention consisted of up to five 45-minute telephone sessions to assess progress and solve problems that may arise in achieving goals.

Outcome measures

Baseline data were collected by self-report questionnaires during a screening interview, ensuring that all participants met the inclusion criteria for the trial. Follow-up data were collected by self-report questionnaires 12 weeks after randomisation. The main outcomes were recruitment rates, well-being as measured by the CORE-OM and return-to-work rates.

Qualitative data were also collected by interview with all participants who received the trial intervention, to get feedback on their views, and experiences, of the intervention and trial participation.

Recruitment methods were also reviewed and revised part-way through the trial to try and improve recruitment rates. However, a number of aspects of the study context limited the changes that could be made.

Data management and analysis

Data were input into a database by the Clinical Trials Unit from case report forms completed by a researcher and questionnaires were completed and returned by participants. As a result of the limited number of data we were able to collect, analysis consisted of simple descriptive statistical analysis. All interviews were transcribed and analysed thematically.

All data handling and analysis were conducted in line with Research Governance Framework for Health and Social Care guidelines (Department of Health. *Research Governance Framework for Health and Social Care.* 2nd edn. London: Department of Health; 2005) and the Data Protection Act 1998 (www.gov.uk/data-protection).

Results

Evaluation of site recruitment

The study experienced a number of delays at the start because of the difficulties recruiting clients of the OH provider. Although the aim had been to recruit at least two large employer organisations, we were able to recruit only one organisation of around 7500 employees. The main barrier to recruitment was that organisations would have to invest financially to cover the costs of the collaborative case management intervention, as it was more intensive than their usual services, resulting in excess treatment costs.

Funding was agreed with Public Health England to support the clinical activity involved in delivering this intervention through the FFW organisation, as it is a non-profit social enterprise; therefore, there were no funding issues holding up recruitment. However, as we had designated a 6-month window for all recruitment, a decision was made to delay the start of recruitment until both sites were activated.

Evaluation of participant recruitment

Although the aim had been to recruit 100 employees on long-term sickness absence, the study experienced response rates that were much lower than expected. Initial screening at the host employer site identified 240 employees (3.2%, below the projected 4.4–6.0%). To assess likely response rates, the initial mailout was restricted to 100 employees. From the 100 letters sent out to employees, only nine responses were received, a rate of just 9% (in comparison with the 20% normally experienced with primary care studies).

Response rates remained consistently low in subsequent mailouts and so we held a consultation meeting with the full research group and collaborators to identify ways we could try to improve identification and response rates. A separate action plan was developed for each site.

Following changes made to the identification and recruitment procedures, further mailouts were conducted. However, little improvement in the response rates was achieved.

In total, over 1000 invitations were mailed out to potentially eligible participants and we received just 61 responses. Of those, only 16 potential participants were eligible and randomised to the trial: seven to the treatment arm and nine to the control arm.

Acceptability

From the data collected from participants in the intervention and case managers, the intervention was seen to be broadly acceptable and implementable by the organisations. However, acceptability as measured by the employees' willingness to engage in the research would suggest that the intervention was not perceived to be acceptable.

Return-to-work rates

After 12 weeks or on completion of the intervention, participants were contacted to find out if they had returned to work. Of those contacted (three did not complete any follow-up), only one person in the treatment group reported having returned to work. Five people in the usual-care group reported having returned to work. However, looking at the data provided in the World Health Organization's questionnaire, at follow-up three people in the treatment group stated that they had worked some hours during the last 7 days. The fact that there was variation in responses between the two measures shows that consideration is needed when selecting the primary measure of return to work.

Conclusions

This study experienced a number of barriers to both the recruitment of organisations for participation in the research and also, more notably, the recruitment rates of employees on long-term sickness absence.

Although over 1000 potential participants were identified across the two sites, a very small percentage responded to the invitation to find out more or take part in the trial. We were limited in the options for increasing recruitment, such as expanding to more sites.

Other trials in this field also experienced low recruitment rates ranging from a rate of 0.9% to 11.5%. These problems are also mirrored outside the research context. One key finding from the evaluation of the FFW service report [Department for Work and Pensions. *Evaluation of the 2010–13 Fit for Work Service Pilots: Final Report*. London: Department for Work and Pensions; 2015 URL: www.gov.uk/government/publications/fit-for-work-service-pilots-2010-to-2013-final-evaluation-report (accessed November 2016)]

was that uptake was significantly lower than expected. In total, only 6726 people accessed the service offered, which was about 40% of the target 17,000.

It is, therefore, clear that substantially different recruitment methods are needed for the OH setting.

Developing effective and acceptable ways of reducing sickness absence remains a high priority.

Recommendations for research

With the introduction of several schemes, such as fit notes and the FFW service, there are already a number of interventions being implemented and evaluations of these services remain important.

A number of methods might overcome the recruitment challenges identified and could be evaluated. These might include incentives for employers, alternative study designs and further modifications to recruitment methods.

Even though we had patient and public involvement and engagement input throughout the study, it is clear that employees were not motivated to respond to the invitations. Whether this was because of the intervention, because it was a trial or for other reasons, it is important that this is explored. A consultation process to see what employees actually want would help to guide further research.

Trial registration

This trial is registered as ISRCTN33560198.

Funding

Funding for this study was provided by the Public Health Research programme of the National Institute for Health Research.

Public Health Research

ISSN 2050-4381 (Print)

ISSN 2050-439X (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: journals.library@nihr.ac.uk

The full PHR archive is freely available to view online at www.journalslibrary.nihr.ac.uk/phr. Print-on-demand copies can be purchased from the report pages of the NIHR Journals Library website: www.journalslibrary.nihr.ac.uk

Criteria for inclusion in the *Public Health Research* journal

Reports are published in *Public Health Research* (PHR) if (1) they have resulted from work for the PHR programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in *Public Health Research* are termed 'systematic' when the account of the search, appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

PHR programme

The Public Health Research (PHR) programme, part of the National Institute for Health Research (NIHR), evaluates public health interventions, providing new knowledge on the benefits, costs, acceptability and wider impacts of non-NHS interventions intended to improve the health of the public and reduce inequalities in health. The scope of the programme is multi-disciplinary and broad, covering a range of interventions that improve public health. The Public Health Research programme also complements the NIHR Health Technology Assessment programme which has a growing portfolio evaluating NHS public health interventions.

For more information about the PHR programme please visit the website: http://www.nets.nihr.ac.uk/programmes/phr

This report

The research reported in this issue of the journal was funded by the PHR programme as project number 12/3090/05. The contractual start date was in April 2014. The final report began editorial review in January 2017 and was accepted for publication in August 2017. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PHR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the PHR programme or the Department of Health.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).