

**Review of the Effectiveness and
Cost Effectiveness of
Interventions, Strategies,
Programmes and Policies to Help
Recipients of Incapacity Benefits
Return to Employment
(Paid and Unpaid)**

**Report
May 2008**

Review of the Effectiveness and Cost Effectiveness of Interventions, Strategies, Programmes and Policies to Help Recipients of Incapacity Benefits Return to Employment (Paid and Unpaid)

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Executive Summary

The National Institute for Health and Clinical Excellence (NICE) has been asked by the Department of Health to develop guidance for primary care services and employers on the management of long-term sickness and incapacity. The guidance will provide recommendations for good practice that are based on the best available evidence of effectiveness and cost effectiveness.

This report is one in a series of reviews of the literature covering primary studies of interventions, strategies, programmes and policies to help those in receipt of incapacity benefit return to work. As such, the report aims to inform the guidance through two linked systematic reviews of the literature on the effectiveness and the cost effectiveness of interventions to move incapacity benefit recipients into employment.

Specifically, this review addressed the following primary research question:

'What UK primary care-based interventions, programmes, policies or strategies are effective and cost-effective in helping those in receipt of incapacity benefit to return to full or part time employment? These could be delivered by a number of sectors (such as voluntary or education sectors) in collaboration with, and/or funded by, employers and primary care services.'

A protocol was developed which specified the population, interventions and outcomes of interest for the effectiveness and cost effectiveness reviews. The protocol provided the detailed inclusion and exclusion criteria that were applied to the literature retrieved via the online searches specified in the protocol. In addition to these database and website searches, experts and the Programme Development Group were contacted for additional studies. The citations and references given in the included papers were also checked. The process took into account the following included and excluded population groups.

- Populations covered:

- All adults over the age of 16 living in the community who are unemployed because of long-term incapacity and/or in receipt of incapacity benefit/disability benefits or other similar benefit.
- Locations to be included:
 - UK only studies as incapacity benefit (and any previous benefits) designates a specific UK based policy
- Populations excluded were:
 - Unemployment benefit recipients
 - Employed/self employed
- The settings excluded were:
 - Studies conducted in non-UK settings
- The interventions, programmes, policies and strategies included were any that:
 - Could help adults in receipt of incapacity benefit or have helped recipients of earlier forms of the benefit to return to work (paid/unpaid) or prepare for work (paid/unpaid).
 - Interventions, policies, programmes or strategies delivered in a primary-care setting and/or workplace setting and/or planned, designed, delivered, managed or funded in collaboration with primary care providers and/or employers. These interventions, policies, programmes or strategies can be delivered by a number of providers (such as voluntary, private, statutory sectors) and/or in various settings not just workplace or primary care settings (such as job centres, community centres) as long as they are fully or co-planned, designed, delivered, managed and/or funded in collaboration with employers and primary care services.
- Interventions, programmes, policies and strategies excluded were any that:
 - Dealt solely with the provision of treatment for existing conditions (including pharmacological or therapeutic interventions)
 - Dealt solely with the effectiveness of the incapacity benefit system, private health insurance schemes or statutory or occupational sick pay.
 - Dealt solely with preventing ill-health retirement (ie where recipient has no intention of returning to work).

Based on the protocol, searches were undertaken of 19 research and specialist economics data bases and six websites by the Centre for Review and Dissemination (CRD) at York University.

Initial title and abstract sifting

A total of 5,899 articles were identified (5,546 effectiveness and 353 cost effectiveness), supplemented by website searches, relevant references from review articles, suggestions from experts who have been consulted about the available literature, citation searches and checking references from the final included papers.

The titles and abstracts of these articles were all initially sifted against the agreed inclusion and exclusion criteria from the protocol. Papers definitely meeting the criteria were put forward for full paper screening. Those where it was unclear if a study met all the criteria were tagged as 'get full paper' and put forward for full paper screening. Those relevant to this review from the searches for the forthcoming reviews were tagged and screened against appropriate sift criteria labelled as 'include' or 'get full paper'. Otherwise papers were excluded from the review. A total of 180 primary effectiveness and cost effectiveness papers from all sources were ordered and retrieved for full paper screening.

Full paper screening

The full paper screening involved a more thorough check of the studies suitability for inclusion in the review. This screening was undertaken using full paper screening checklist based on the agreed protocol. Given that the decisions were based on the full papers rather than simply the title and abstract, and in some cases only the title, more definitive decisions could be made. In addition all the papers were subject to a second review at the full paper screening stage to validate the decisions made.

Included papers

Articles passing the full paper screen were then put through a process of data extraction and quality assessment. Data extraction was performed by one reviewer and checked by another. Quality assessment was undertaken by two reviewers independently and ratings of quality were then compared. Any differences were settled through discussion. Three effectiveness articles and no cost-effectiveness articles passed this full paper screen. The papers covered different issues were reviewed under three themes.

Intervention Theme 1: Cognitive behavioural therapy

Evidence statement for Theme 1

ER3.1: There is insufficient evidence from one RCT (grade '-') to assess the efficacy of cognitive behavioural therapy delivered by Jobcentre Plus work psychologists over an eight week period in

improving employment outcomes for incapacity benefit recipients with mild, moderate or severe anxiety and depression and expressing a desire to return to work (Winspear 2007).

Intervention Theme 2: Work-focussed interviews and access to employability support

Evidence statement for Theme 2

ER3.2: There is limited evidence from a non-randomised controlled trial (grade +) that a programme comprising attendance at a work-focussed interview and access to return to work support (including further interviews, help with managing their health condition, financial support and in-work occupational health and personal support) could be effective at increasing the chances of people on Incapacity Benefit (IB) being in work 18 months after initially enquiring about accessing IB. The employment effects appear to be stronger for women than men, those aged under, rather than over, 50 and people without rather than with mental illness. (Bewley et al. 2007)

Intervention Theme 3: Rehabilitation programme

Evidence statement for Theme 3

ER3.3: There is insufficient evidence from one case series study (grade -) to assess the efficacy of the Papworth Trust's Early Rehabilitation Programme (comprising support for participants over a four to ten month period from a rehabilitation coordinator, case manager, job coach and assistant, vocational adviser, information technology assessor and vocational psychologist - help from a literacy tutor, an occupational therapist and assistant, a consultant in rehabilitative medicine, a speech and language therapist and a physiotherapist are also used according to individual need) in assisting the return to work of those on incapacity benefit because of disabling injuries (Desouza et al 2007).

Conclusions

The search for the literature was comprehensive and considerable effort was made to limit bias in the identification, selection, extraction and appraisal of the literature. Overall, this review has identified a paucity of evidence in relation to the effectiveness of interventions and a complete lack of evidence for the cost effectiveness of interventions that met the requirements of the research question and the inclusion and exclusion criteria (eg UK studies based on an RCT or longitudinal methodology).

Two conclusions are apparent. Firstly that the effectiveness and cost effectiveness reviews for research question 4 have identified a need to generate new research in this

area as there is so little research which meets the specified inclusion criteria and evaluates the impact of interventions, strategies, programmes and policies to aid those on incapacity benefits to return to work. In particular it would be useful to have some form of economic evaluation of interventions that appear to be effective (in this case the only example being the Pathways to Work pilot reported on by Bewley et al (2007)).¹

This clearly represents a gap in the evidence base, at least in terms of the types of primary studies included in this review. It can be concluded that there is insufficient UK information of this sort on which to base detailed policy and practice, but that this report identifies clear gaps for future research.

In the absence of a sufficient research base, one option is to take into account evidence from other OECD countries. The different contexts and benefit regimes operating in other countries will undoubtedly limit the transferability of any findings (and this was one of the reasons that this review focussed just on the UK). However, given the time it would take to build up a substantial body of evidence, future reviews of this area may benefit from developing a way of at least drawing out the principles operating in other countries to see if any lessons can be learnt for the UK

¹ Reference to a cost benefit analysis is made in the range of literature about Pathways to Work, but no published study was found during searching

1. Introduction

The National Institute for Health and Clinical Excellence (NICE) has been asked by the Department of Health to develop guidance for primary care services and employers on the management of long-term sickness and incapacity. The guidance will provide recommendations for good practice that are based on the best available evidence of effectiveness and cost effectiveness. The Institute for Employment Studies, Institute of Work Psychology and the School of Health and Related Research (both at Sheffield University) were contracted to undertake a series of three effectiveness and cost effectiveness reviews of primary randomised controlled or longitudinal studies (covering four research questions) and an economic analysis of the evidence to support the production of this guidance.

This report covers the effectiveness and cost-effectiveness review for research question 4 about what works to help those in receipt of Incapacity Benefit to return to full or part time employment, first discussed at the Programme Development Group (PDG) in December 2007. Separate reviews covered the other three primary research questions about various aspects of long-term sickness absence and were first considered by the PDG in February 2008 and April 2008.

This review has been revised in the light of the comments received from the PDG and any further evidence received through the search and sifting process since the first draft was completed.

An economic analysis, including economic modelling, will be presented at the PDG meeting in May 2008. This will cover a selection of topics identified in the reviews which have been chosen by the PDG and where there is sufficient data to make modelling feasible.

1.1 Background

Extensive studies of work and unemployment support the concept that work is beneficial for health and well-being. There is broad consensus across multiple

disciplines, disability groups, employers, unions, insurers and all political parties, based on extensive clinical evidence that, when their health conditions permit, sick and disabled people should be encouraged to remain in or to (re)-enter work as soon as possible. The benefits of work for these groups are that it is therapeutic, leads to better health outcomes and minimises the harmful effects of long-term sickness absence and the risk of long-term incapacity (Waddell and Burton, 2006). Prolonged absence can result in job loss and the longer a person is on incapacity benefit, the less likely they are to return to work (Cabinet Office, 2004). It has been estimated that for a person claiming incapacity benefit for a year, the average duration of their claim will be for eight years and after two years they are more likely to die or retire than return to work (DWP/DH/HSE, 2005). It is against this background the Department of Health is seeking to provide guidance on which interventions are effective and cost-effective in helping those in receipt of incapacity benefit to return to work. The guidance is intended to be used by professionals and managers who have public health as part of their remit working in the NHS, local authorities and the wider public, private, voluntary and community sectors.

1.2 Research objectives

This review addresses the following specific research question which is referred to as 'research question 4' throughout the report:

'What UK primary care-based interventions, programmes, policies or strategies are effective and cost-effective in helping those in receipt of incapacity benefit to return to full or part time employment? These could be delivered by a number of sectors (such as voluntary or education sectors) in collaboration with, and/or funded by, employers and primary care services.'

The following secondary research questions were developed to interrogate the data further (data permitting):

- What is the frequency, content, length and duration of an effective intervention, programme, policy or strategy?
- Which are the most effective, cost effective and acceptable interventions, programmes, policies or strategies for different groups? (eg age, conditions, gender, ethnic groups or social classes)
- Does the effectiveness of an intervention, programme, policy or strategy depend on the person leading it? (What are the significant characteristics of an effective leader: what training and skills are required?)
- What are the barriers to-and facilitators of-effective implementation?
- Does the intervention, programme, policy or strategy lead to any adverse or unintended (positive and negative) outcomes?

- Which interventions, programmes, policies or strategies are ineffective and/or are not cost effective?

It is important to recognise that any evidence subsequently presented in relation to the secondary research questions is drawn from a limited pool of studies and cannot be considered on the same level as evidence about the primary outcome.

1.3 Structure of report

The structure of this report is as follows:

- Chapter 2 discusses how the literature search was conducted, the retrieval of papers, the selection of studies for inclusion, data extraction and quality assessment.
- Chapter 3 presents the effectiveness findings by theme/area
- Chapter 4 provides the cost-effectiveness findings
- Chapter 5 discusses the review findings, highlighting their applicability, limitations and any gaps.

Seven appendices present supporting documents.

2 Methodology

This chapter details the methodology for identifying studies for inclusion in review question four. First the search strategies for the effectiveness and cost effectiveness questions are given, with details of the data bases and websites searched. The methods for title and abstract screening are described along with inclusion and exclusion criteria used. The process for contacting experts and members of the PDG is explained. Next the full paper screening process is detailed, including the review level papers, and the additional inclusion and exclusion criteria used at this stage are given. Finally the data extraction and quality assessment is presented and a summary of included papers given.

2.1 Identifying potentially relevant studies

In consultation with NICE it was decided to conduct three strands of searches for research question 4¹:

1. effectiveness – primary studies
2. effectiveness – reviews; and
3. cost effectiveness – primary studies and reviews.

Nineteen databases and six websites were searched by the Centre for Reviews and Dissemination (CRD) at York University, using a search protocol supplied by the IES/University of Sheffield team.

An additional five website searches were undertaken by NICE following suggestions received from the PDG.

¹ The search strategy for the remaining research questions (1 to 3) are covered in the other two evidence reviews.

2.1.1 Effectiveness literature searches

The following key terms and limiters were used in the search. Key search terms were defined as 'benefit recipients', 'return to work', 'work readiness' or other synonyms. The search strategies for the Medline search can be seen in Appendix 1.

The following limits were placed on the search strategy:

- Published from 1990 onwards
- Published in English language only.

The following 19 databases and six websites were searched to identify primary studies and review-level studies for this effectiveness rapid review:

Databases

- Cochrane Database of Systematic Reviews (CDSR)
- Database of Abstracts of Reviews of Effectiveness (DARE)
- Cochrane Central Register of Controlled Trials
- MEDLINE
- EMBASE
- PsycINFO
- CINAHL (Cumulative Index of Nursing and Allied Health Literature)
- AMED (Allied and Complementary Medicine)
- Business Source Premier
- British Nursing Index
- NHS HTA
- ASSIA (Applied Social Science Index and Abstracts)
- Social Science Citation Index
- Science Citation Index
- Sociological Abstracts

Four databases of grey literature were also searched:

- HMIC (Health Management Information Consortium. Comprises King's Fund Database and DH-Data database)

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- SIGLE (International System for grey literature)
- National Research Register
- Current Contents.

Websites

A series of websites were also searched to identify any relevant literature:

- Department for Work & Pensions: <http://www.dwp.gov.uk/>
- Institute for Public Policy & Research: <http://www.ippr.org.uk/>
- Employment studies research unit:
<http://www.uwe.ac.uk/bbs/research/esru/wps.shtml>
- Centre for Longitudinal Studies: <http://www.cls.ioe.ac.uk/>
- Health and Safety Executive: <http://www.hse.gov.uk/index.htm>
- Department for Business, Enterprise and Regulatory Reform:
<http://www.dti.gov.uk/index.html>

The database and website effectiveness search for research question 4 resulted in 5,627 primary study titles and abstracts¹ and a further 716 review-level references were also identified.

2.1.2 Cost Effectiveness literature searches

Specific economic searches, with the same limitations as for the effectiveness searches, were performed on following specialist economic databases:

- Health Economics Evaluation Database (HEED)
- NHS EED (NHS Economics Evaluation Database)
- Econlit.

The cost effectiveness search identified 353 titles and abstracts (all primary studies) for research question 4.

¹ That is 5,546 from the database searches and 81 from the website searches.

2.1.3 Suggestions from experts and PDG

The IES/University of Sheffield team put together a list of experts in the area of managing sickness absence and return to work. The list included academics working in the field, policy makers and commentators. This list, together with the titles of articles identified in the question four searches and the website searches that had passed the first stage of screening (see 2.2.1. for further details), were circulated to PDG members by NICE in October 2007. PDG members were asked to suggest additional experts who should be contacted and for any references they felt relevant to the review, which were not on the list.

Experts suggested by IES/University of Sheffield, NICE and the PDG were then all contacted with the titles of articles identified as relevant (following the title and abstract screening) to research question 4 and asked to suggest any additional references.

This resulted in an additional (to the above database and website searches) 21 effectiveness titles and abstracts. No economic titles and abstracts for research question 4 were suggested additional to those already identified.

2.1.4 Additional web-site searches

Following consultation with the PDG a further five website searches were undertaken:

- ACAS
- Institute of Occupational Health
- Oxford Health Alliance
- National Audit Office
- Xpert HR

The above website searches resulted in a further 13 effectiveness titles and abstracts and no additional economic titles/abstracts for research question 4 being identified (see section 2.2.4 below).

2.2 Selection of studies for inclusion

2.2.1 Title and abstract appraisal

The purpose of title and abstract appraisal is to identify studies that 'help to answer the questions being addressed by the review' (NHS CRD, 2001). Study selection should be systematic, replicable and free from bias. Sifting is informed by inclusion

criteria reflecting the population, intervention, outcome and study design, and by exclusion criteria defined in the scoping document, such as language and date.

Only the criteria relevant to research question 4 are presented here. The criteria for the remaining research questions (1-3) are presented in the two other evidence reviews.

The inclusion criteria are set out below.

Settings included covered:

- UK only because incapacity benefit designates a specific population that only exists in the UK

Population included covered:

- all adults over the age of 16 who are:
 - unemployed because of long-term incapacity and in receipt of incapacity benefit/disability benefits.

Interventions, programmes, policies and strategies included covered:

- any that aimed to help adults in receipt of incapacity benefit to return to work or prepare for work.

Outcomes included covered:

- return to work after being in receipt of incapacity benefit
- job related activity (eg job seeking)
- other work related outcome.

Study designs that were included:

- Primary level study designs:
 - randomised controlled trials (RCTs)
 - longitudinal intervention studies (ie there is at least one follow up measure after baseline).
- Review level studies:
 - reviews of RCT's or longitudinal studies .

The sifting was limited to these study designs in line with the requirements of the research question. The aim of the sifting was to identify studies that demonstrate causality, ie that demonstrate that an intervention does have a significant, direct impact on the outcome of choice (ie return to work or work readiness) rather than simply demonstrating an association. Causality can only be demonstrated by research that uses longitudinal study design (ie studies with at least one follow up measure after baseline). Therefore the inclusion criteria were constructed to limit the retrieved studies to those reporting longitudinal data.

The exclusion criteria were as follows:

Excluded locations were:

- any non UK.

Excluded populations were:

- all adults over age 16 in full or part-time employment, both paid and unpaid
- all adults over age 16 not in receipt of incapacity benefit (or a previous version of the benefit).

Excluded Interventions, programmes, policies and strategies were:

- were delivered outside a workplace or primary care setting, with no primary care or employer involvement in the planning, design, delivery, management or funding
- deal solely with the provision of pharmacological treatment
- looked at the effectiveness of private health insurance schemes, the incapacity benefit system and/or the claiming of statutory sick pay to reduce sickness absence.

Excluded study types:

- studies which describe the relationship between health/ill health and incapacity (ie correlates studies or non evaluative studies of an intervention, policy, programme or strategy). Descriptive studies of participants' views and experiences and cross-sectional studies (ie with only one data collection point) are also excluded.
- dissertations/theses
- non-English language studies.

2.2.2 Development of title and abstract screening checklists

Detailed sifting criteria in the form of title/abstract screening checklists were developed. The inclusion/exclusion criteria outlined in the scope guided the sift process and helped to ensure consistency in screening across the abstract sifting team. In total, the following three abstract screening checklists were developed and used to screen the titles and abstracts retrieved:

1. Effectiveness:-primary studies: RCTs and longitudinal intervention studies
2. Economics:-primary studies and reviews literature
3. Reviews:-reviews of the effectiveness literature.

The abstract screening checklists are given in Appendix 2.

2.2.3 Title and abstract screening process

When a title/abstract appeared to satisfy all of the inclusion criteria it was coded as 'include'. When it was unclear regarding its possible relevance and inclusion, then it was coded as 'get full paper'. Any titles and abstracts meeting any of the exclusion criteria were excluded from the review.

Titles and abstracts coded as 'get full papers' were retrieved because there was insufficient information contained in the title or abstract to assess whether the study was relevant or not. Consequently, when the full paper was acquired, an accurate assessment could be made as to whether or not to include the paper in the review.

To be considered an economic evaluation, a study has to analyse explicitly both the costs and the outcomes of the intervention under investigation in comparison to the costs and outcomes of at least one alternative. For the economic results, abstracts could also provide potentially relevant background data which may assist with the modelling review – any such abstracts were tagged and coded appropriately.

In a reciprocal process, any titles and abstracts from the searches for the two other evidence reviews (which cover research questions 1 to 3) that appeared relevant to research question 4 were also tagged as such and then re-screened using the abstract screening checklist in Appendix 2.

The result was a list of papers coded as 'includes' or 'get full paper' from the effectiveness and cost-effectiveness literature searches for this review (covering research question 4) and subsequent evidence reviews (covering research questions 1 to 3), and the suggestions from experts and the PDG. From each source of references, those passing the title and abstract screening for research question 4 were ordered for full paper retrieval.

2.2.4 Additional website searches

The searches results for the additional five websites (see above section 2.1.4) identified 280 potential papers for question 4 (and 611 for question 1 to 3). The Xpert HR website search yielded a high number of hits (267 for research question 4 and 580 for research questions 1 to 3 prior to de-duplication). However, it was felt that the titles/abstracts identified by these searches may not be particularly relevant and the time required to screen these results would only yield minimal relevant material. In order to determine this a ten per cent random sample of the titles/abstracts were selected and screened using the appropriate forms by the NICE team. Ten per cent of the sample were considered potentially relevant and coded as 'get full paper'. Given the small percentage it was agreed that the remaining titles/abstracts from these search results would not be screened at this stage. This therefore left 13 search results for review question 4 from the remaining four additional websites searched (and 31 search results for research questions 1 to 3). None were identified as potentially relevant to research question 4 following title/abstract screening and ordered for retrieval.

2.2.5 Number of papers ordered

Table 2.1 summarises the numbers of titles and abstracts coded as 'include' or 'get full paper' for each of the above categories. It should be noted that because of the re-classification of papers (eg papers from the searches for the two other reviews

Table 2.1: References passing research question 4 title and abstract sift by source

Source	Number of title and abstracts screened	Number coded as include or get full paper for research question 4
Q4 Effectiveness primary study search	5,627	118
Q4 Economics primary study and review search	353 (primary studies)	22
Q4 Effectiveness review search	716	23
Q1-3 Effectiveness primary study search	15,345	24
Q1-3 Economics primary study and review search	2,495	1
Q1-3 Effectiveness reviews search	309	0
Q4 Additional website search*	13	0
Q1-3 Additional website search*	31	0
Q4 PDG & Expert suggested references	21 (effectiveness)	5 (inc. one review)
Q3 PDG & Expert suggested references	18 (effectiveness)	0
Total		194

* includes four websites suggested by the PDG. It was decided not to fully screen the X-pert HR website (see 2.2.4)

Source: IES/IWP/SchARR

(covering research questions 1 to 3), which were tagged as a research question 4 paper, then excluded when screened against the research question 4 checklist and the elimination of duplicates) the figures presented below do not necessarily match those in previous reports. In total 194 references were ordered for full paper retrieval.

2.2.6 Full paper screening

Of the 194 papers ordered 20 (effectiveness studies) turned out to be books or book chapters so were excluded from the review. Of the remaining 174 papers ordered items coded as 'includes' or 'get full papers', 12 (effectiveness references) are unavailable (eg because they are incomplete). The rest have been retrieved and screened.

Detailed full paper screening checklists were developed to allow a more accurate assessment of whether each paper met all the inclusion and exclusion criteria (See Appendix 3 for details of the three full paper screening checklists developed). The full paper screening checklists were based on all the inclusion and exclusion criteria detailed in section 2.2.1. Some of these inclusion and exclusion criteria were expanded to reflect the detail in the scope or parameters discussed and agreed by the PDG. This detail enabled a better categorisation of papers included at the full paper screening stage and ensured that any data relevant for the economic modelling was identified and coded appropriately. The expanded criteria are as follows:

Additional or expanded inclusion criteria:

Interventions, programmes, policies and strategies:

- These can be delivered in a primary care setting and/or workplace setting and/or planned, designed, delivered, managed or funded in collaboration with primary care providers and/or employers. These interventions can be delivered by a number of providers (such as voluntary, private and statutory sector) and/or in various settings not just workplace or primary care settings (such as jobcentres, community centres) as long as they are fully or co-planned, designed, delivered and/or funded in collaboration with employers and primary care service.
- Could help adults (over 16) who are unemployed and in receipt of incapacity benefit (or a previous form of incapacity benefit or similar benefit) return to work (paid/unpaid) or prepare for work (paid/unpaid).

Primary outcomes

- Return to work (paid/unpaid).

- Sustained return to work(paid/unpaid).
- No effect on return to work, job related activity or any other work outcome.

Secondary outcomes

- Other work related outcomes (ie uptake of or increased job seeking, increase in work experience or vocational training, and increase in skills/knowledge for work/unpaid work or alternative career/work)

To be included in the review the paper had to contain data on the primary review question. If a paper only addressed secondary research outcomes it would be excluded.

Study design for effectiveness papers:

At the full paper screening stage the study design of all included papers was classified into one of the following categories to allow grouping of papers for data extraction and quality assessment:

- RCT
- controlled before and after
- cohort
- case control
- before and after
- interrupted time series
- other.

Study design for cost effectiveness papers:

At the full paper screening stage the study design of all included papers was classified into one of the following categories to allow grouping of papers for data extraction and quality assessment:

- cost benefit analysis (CBA)
- cost effectiveness
- cost utility
- other.

Mixed studies

- If the study was a combined intervention and the public health data could be disaggregated.

Mixed studies are ones that included data on treatment and an intervention, policy, strategy or programme relevant to this review or covered multiple population groups which met both inclusion and exclusion criteria. Mixed studies would only be included if the data relevant to the appropriate population group could be sufficiently disaggregated.

Additional or expanded exclusion criteria:

Interventions, programmes, policies, strategies:

- Studies which deal solely with the effectiveness of the incapacity benefit system, private health insurance schemes or statutory or occupational sick pay.
- Studies dealing solely with preventing ill health retirement (ie where the individual has no intention of returning to work).

Study types excluded:

- Studies which describe the relationship between health/ill-health and incapacity benefit (ie correlates studies or non evaluative studies of an intervention, policy, programme or strategy).
- Books and book chapters

2.2.7 Review-level material

As noted above in Section 2.1, searches were also made for relevant review-level material, such as effectiveness and cost effectiveness reviews or meta-analyses of RCT's and longitudinal studies. A further review-level reference was also suggested by PDG and expert – see Table 2.1. All 24 review-level references (23 effectiveness and 1 economic review) assessed to be potentially relevant to the incapacity review were also ordered for full paper retrieval – see table 2.2. A full paper screening checklist was developed and used to screen these reviews (See Appendix 3).

Additional details on the screening criteria for review studies were also specified as follows:

Population inclusion criteria

- The review must wholly or partly cover evaluations of an intervention/policy/strategy/programme which aims to help adults over 16 who are unemployed and in receipt of incapacity benefit (or a previous form of incapacity benefit or other similar benefit) return to work (paid or unpaid).

Setting inclusion criteria

- At least one of the studies reported in the review must be set in the UK

Effectiveness study design criteria:

- The review must include at least one RCT or longitudinal study.

Cost effectiveness study design criteria:

- The study must contain effectiveness studies or economic evaluations with cost effectiveness, cost benefit, cost utility, cost consequences, cost minimization or net monetary (cost) benefit data.

If a review met the full paper screening inclusion and exclusion criteria its reference lists were then checked by two reviewers to identify potentially relevant additional primary studies. Any duplicates with primary study references already obtained were removed and titles/abstracts ordered for retrieval. Abstracts of any primary studies thus identified were then screened using the appropriate abstract screening checklist and if accepted/included, they were added to the references requested for full paper retrieval. As Table 2.2 indicates no additional primary studies were identified from the three effectiveness and one cost-effectiveness reviews screened (none outstanding).

Table 2:2: Review level studies ordered and included for reference tracking

	Review studies ordered	Review studies screened and included in reference tracking	Number of primary studies identified from reference checking of relevant reviews.
Q4 Effectiveness Reviews for reference checking	23	3	0
Q4 Cost-Effectiveness Reviews for reference checking	1	1	0

Source: IES/IWP/SchARR

2.2.8 Reference tracking

Additional to the reference checking of included review-level studies, the reference lists for all primary studies that met the inclusion criteria were examined to identify any additional relevant references. A list of any additional references thought to be relevant was checked against the Reference Manager databases of literature search results. Abstracts were obtained for any references not identified in the Reference Manager databases (previously identified references would have already been screened) and they were then screened following the same process described above for titles and abstracts generated by the search of electronic databases. Eleven further, additional effectiveness references were identified by this process and ordered for full paper screening. None were included in this review as a result of this exercise.

2.2.9 Citation searching

The citations of all three included papers were also searched for by one reviewer using Web of Science to determine whether any additional papers citing these included references had been missed. No further, additional references were identified by this process.

2.3 Summary of studies identified for inclusion

The sifting of the titles and abstracts produced by the searching of the electronic databases gave a total of 180 primary papers that possibly matched the inclusion criteria for review Question four. The full papers for these were requested and all have been received and a full paper screening undertaken.

2.3.1 Effectiveness studies

As Table 2.3 outlines 157 effectiveness primary studies were thought to be relevant to research question 4 and were screened. One reviewer checked all of the received papers against the inclusion criteria using the full paper screening list checklist given in Appendix 3 and at least one in ten were double checked by a second reviewer. As a result of this process three papers were included (two from the question 4 effectiveness search and one from suggestions from external experts). For the sources of all possible studies to answer this question, and the points at which studies were excluded, see Figure 2.1.

Table 2.3: Papers ordered, pending and included

	Full papers ordered ¹	Full papers included
Q4 Effectiveness primary study search	118	2
Q4 Cost-Effectiveness search	22	0
Q 1-3 Effectiveness primary study search	24	0
Q1-3 Cost-Effectiveness search	1	0
Q4 Additional website searches	0	0
Q4 References suggested by PDG and experts- effectiveness	4*	1
Q1-3 References suggested by PDG and experts- cost effectiveness	0	0
Reference tracking of included papers - effectiveness	11	0
Reference tracking of included papers - cost effectiveness	0	0
Citation searching of included papers (effectiveness)	0	0
Citation searching of included papers (cost-effectiveness)	0	0
Total	180 (23 cost effectiveness and 157 effectiveness)	3 (effectiveness)

* One PDG suggestions was a review (see Table 2.2)

Source: IES/IWP/SchARR

The following three effectiveness papers were identified for inclusion using the above process and went forward for data extraction and quality assessment:

- Bewley H, Dorsett R, Haile G (2007) The Impact of Pathways to Work, DWP Research Report 435
- Desouza M, Sycamore M, Little S and Kirker S G B, (2007) 'The Papworth early rehabilitation programme: Vocational outcomes', Disability and Rehabilitation, April 2007, 29 (8), p 671-677.
- Winspear D, 'Using CBT to improve employment outcomes for incapacity benefit customers: Interim report', Journal of Occupational Psychology, Employment and Disability, Vol 9, No 1, Spring 2007, p 41-51.

Appendix 4 provides the reference details of the primary studies excluded as a result of the full paper screening. Studies were excluded because they failed to meet at least one of the inclusion criteria (or met an exclusion criterion). As soon as they failed to meet one of the criteria they were excluded. In the appendix the references are

¹ This includes references which turned out to be books or unobtainable and therefore unable to be screened

ordered by the criterion by which they were excluded. Most were excluded because they were a non-intervention study (did not examine a interventions, strategies, programmes or policies to help incapacity benefit recipients return to work (47 per cent), but these may well have failed against other criteria too. The other main reasons for the exclusion of the studies were that: they were not conducted in the UK (31 per cent); they were based on the wrong population (eg included people employed or not on Incapacity Benefit) (11 per cent); or they were not the right study design (ie RCT or longitudinal studies) (five per cent); or did not provide data on the primary outcomes for this review (five per cent).

2.3.2 Cost-effectiveness

When sifting the list of titles and abstracts generated by the search of electronic databases, 23¹ primary studies were selected as possible papers that satisfied the inclusion criteria for this review. One primary study was a duplicate found by two of the searches (Leon et al 2002), so, the final total number of primary studies before screening of full papers was 22. Two reviewers then assessed these full papers using the economic full paper screening checklist. However, when checking the inclusion criteria against the full details of the study (as described in section 2.2), all 22 studies were ultimately excluded because none satisfied the inclusion criteria. For the sources of all possible papers to answer this question, and the points at which papers were excluded, see Figure 2.2.

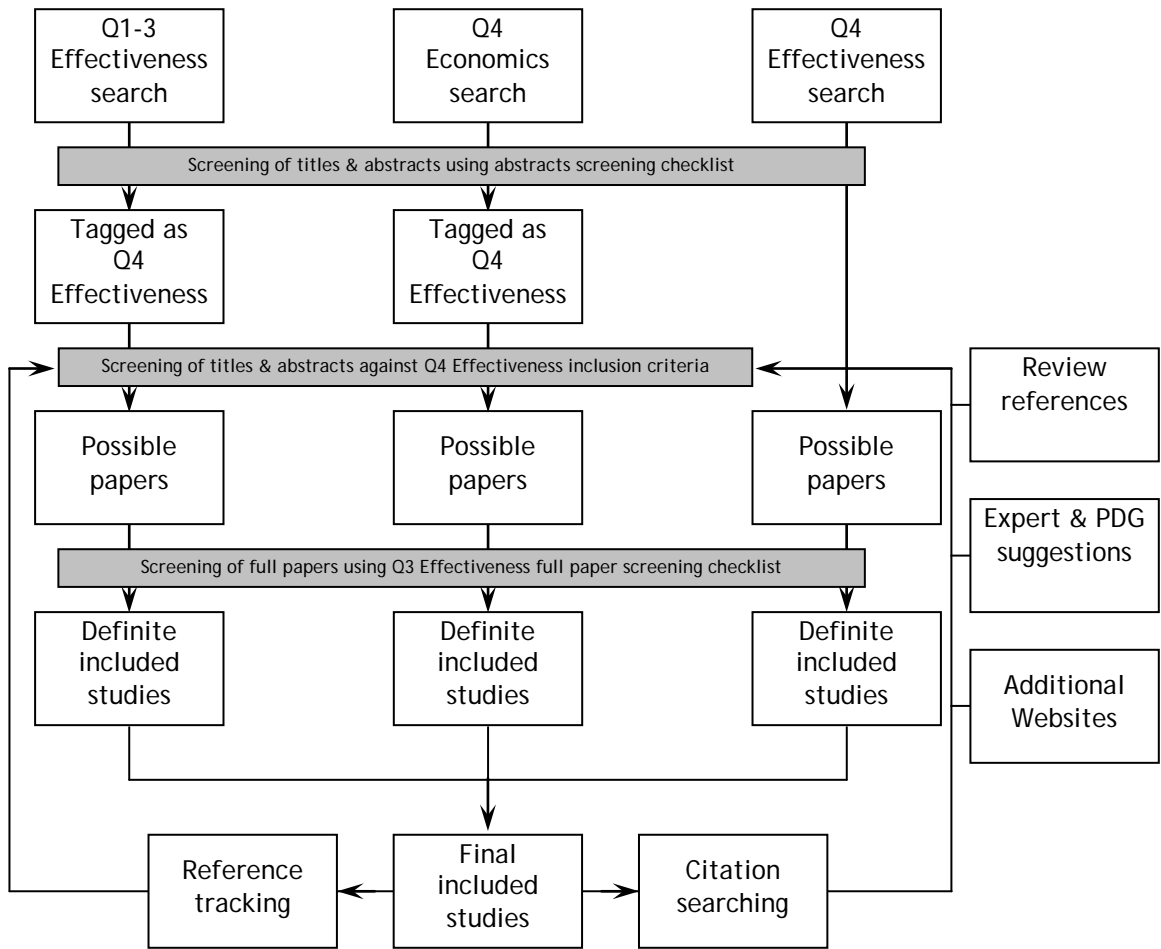
In the absence of any relevant papers satisfying the inclusion criteria, it was agreed to check other potential sources of possible data, i.e. books and book chapters, which had been tagged during screening of the literature search results. Eleven books and book chapters had been tagged in this way, but, once again, no economic studies with cost effectiveness, cost benefit, cost utility, cost minimisation or net monetary (cost) benefit data were identified for inclusion. The papers and the reasons for all the exclusion are presented in section 4.1

Seven papers were also identified which contained potentially relevant data for the modelling stage. However, this figure may well change once it had been agreed what areas will be modelled.

Figures 2.1 and 2.2 below present a diagrammatic overview of the results of this comprehensive searching and screening process.

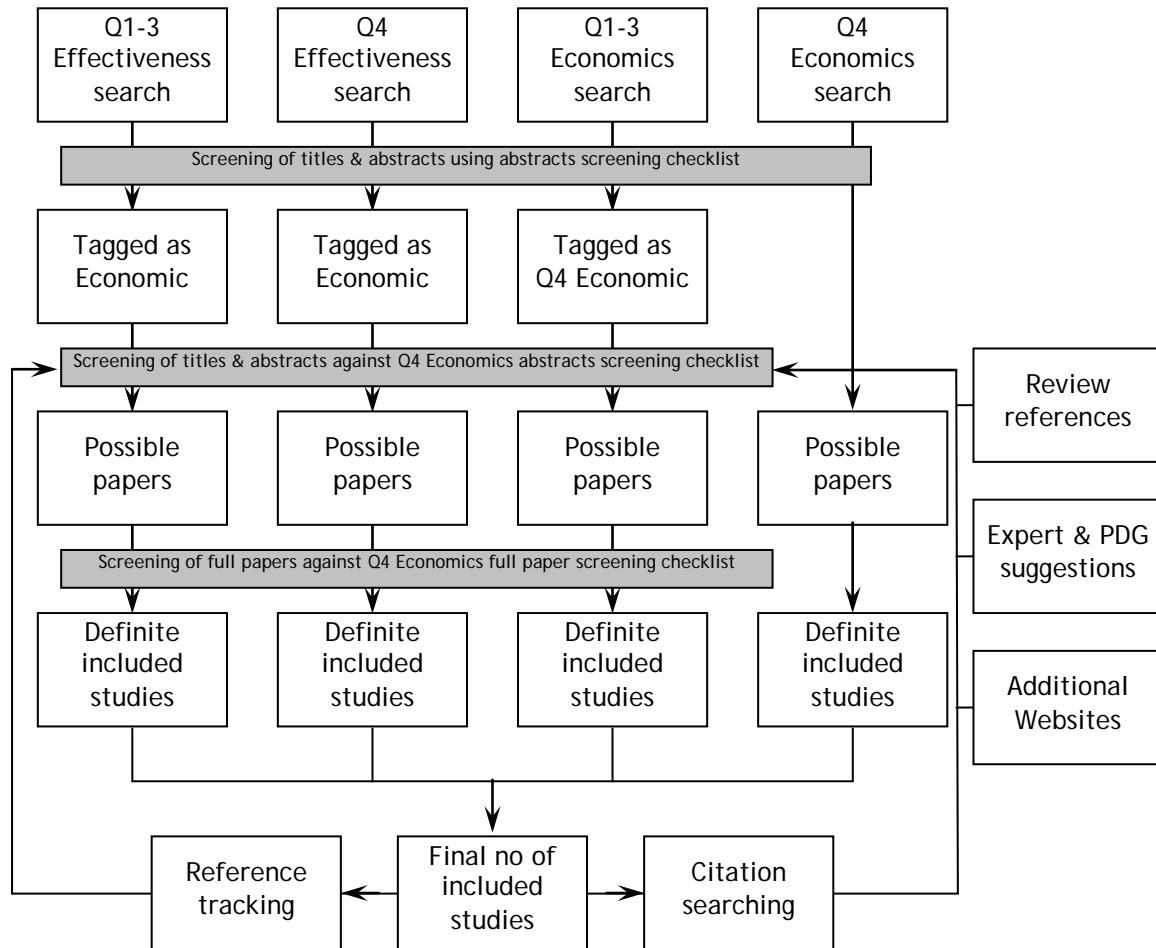
¹ Twenty two primary studies from the research question 4 searches and one study from the search for research questions 1 to3.

Figure 2.1: Process for identifying effectiveness studies



Source: IES/IWP/SchARR

Figure 2.2: Process for identifying cost-effectiveness studies



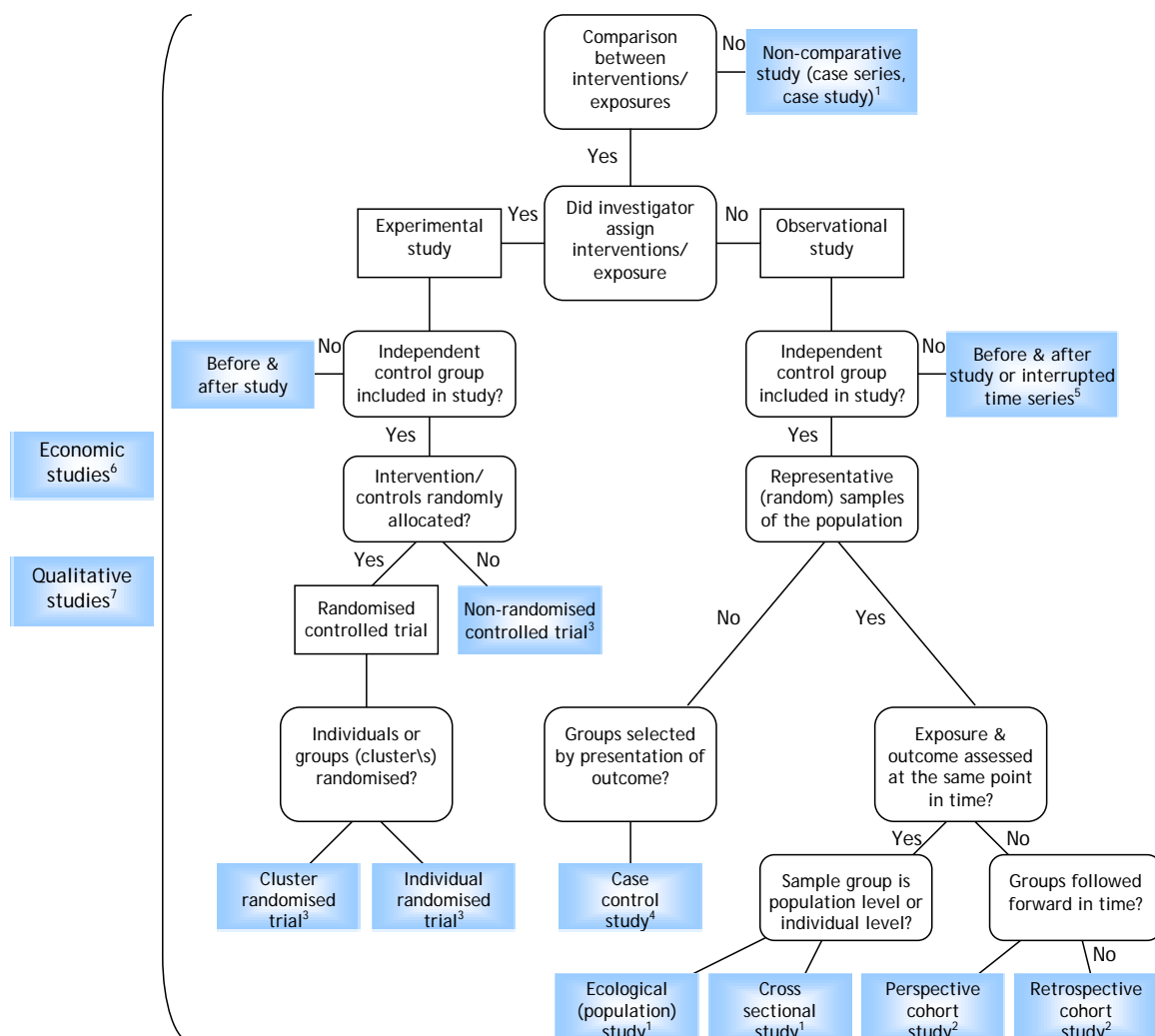
Source: IES/IWP/SchARR

2.4 Data extraction and quality appraisal

2.4.1 Data extraction

The study type of each included effectiveness paper was identified using the following algorithm which was adapted from *Methods for development of NICE public health guidance* (Figure 2.3).

Figure 2.3: Algorithm for classifying primary study designs about effectiveness



Source: IES/IWP/SchARR

The effectiveness data extraction form contained in the *Methods for development of NICE public health guidance* was adapted to reflect the parameters of this review – please see Appendix 6 for a example of a completed form. One reviewer extracted data for each full paper using this form. A second independent reviewer checked the data extraction, and any differences were resolved by discussion with a third reviewer.

For the cost effectiveness review, the data extraction form contained in the *Methods for development of NICE public health guidance* was adapted to reflect the parameters of this review and supplemented with questions from the Drummond checklist (Guidelines for authors and peer reviewers of economic submissions to the BMJ, M F Drummond, on behalf of the BMJ Economic Evaluation Working Party) – please see Appendix 7.

Secondary outcomes

If a study is included on the basis that it contains data relevant to the primary research question and outcome, then data on any secondary outcomes will also be reported. The following secondary outcomes are to be considered (but are not limited to):

- Other work related outcome (eg increase in work experience, vocational training, increase in knowledge/skills for alternative work/career, uptake and increase in job seeking activity)
- Acceptability of the intervention/policy/programme/strategy – content/frequency/location etc.
- Identification of any adverse or unintended (positive or negative) outcomes as a result of the intervention, programme policy or strategy.
- Barriers to or facilitators of effective implementation
- Individual improvement in personal aspects such as: ability to cope, mental condition, disability management, changed capacity and goals, musculoskeletal ability and social functioning.

2.4.2 Quality assessment

Effectiveness studies

Quality appraisal for the effectiveness studies was conducted based on the NICE CPHE forms. These forms provide criteria for rating a study based on how robust an example it is of that particular study design. For example, a randomised control trial (RCT) will be rated on how well it meets the defined standards for a robust RCT. Different criteria exist for each type of study design. This means that the quality rating for studies of the same design can be compared with each other (ie an RCT rated ++ is more robust than an RCT rated +). However, quality ratings for different study designs cannot be compared and an RCT rated – is still likely to provide more robust data than a before and after study rated ++ because an RCT is an inherently stronger study design.

It was agreed that the criteria for making the actual quality assessment ratings (++, +, -) should be adapted to reflect study designs found in the social sciences/public health area (eg an RCT would not be downgraded for failure to use complex concealment designs such as double blinding), because such designs are not always possible with intervention studies where the individual delivering the intervention knows what the intervention is.

Two independent reviewers assessed the quality of each included study. Any differences in quality assessment were resolved by discussion with a third reviewer

or, if agreement could not be reached, details were reported in the review. Appendix 6 gives the quality assessment forms used and a completed checklist is given.

The quality assessment checklists contained in the *Methods for development of NICE public health guidance* were adapted to reflect the parameters of this review – see Appendix 7.

Cost effectiveness studies

No economic quality assessment was undertaken given no economic studies were identified for inclusion.

2.5 Synthesis and formulation of evidence statements

2.5.1 Effectiveness studies

The results of the data extraction and quality assessment for each theme identified in the included effectiveness studies were presented in a narrative summary and combined in a summary evidence table. An evidence statement was generated for each theme. Chapter three of the report presents the synthesis of data and evidence statements for the included effectiveness studies.

2.5.2 Cost-effectiveness studies

No synthesis was undertaken of cost-effectiveness studies because no study satisfied the required inclusion criteria.

3 Effectiveness Findings

Three effectiveness studies were identified which met the criteria for inclusion for interventions, programmes and strategies to help recipients of incapacity benefits return to work. The interventions described differ considerably and are discussed under the three separate thematic headings below.

The evidence tables for each of the studies are presented in full alphabetical order (by the first named author) at the end of this chapter.

3.1 Theme 1: Cognitive behavioural therapy

Winspear (2007)

A Randomised Controlled Trial (RCT) study (rated '-') conducted in 2007 investigated the impact of cognitive behavioural therapy (CBT) delivered by Jobcentre Plus work psychologists over an eight week period to improve the employment outcomes for incapacity benefit recipients with mild, moderate or severe anxiety and depression (an average 8.7 sessions per individual) . The published paper presents an interim report on the research¹.

The intervention was delivered by ten Jobcentre Plus work psychologists all of whom had attended a five day CBT course (one already held a qualification in CBT). The participants were 67 incapacity benefit recipients with mild, moderate or severe anxiety and depression. No details are given in the paper of their demographics or employment histories. The intervention is being trialled in two demonstration sites in Newham and Doncaster. The participants were referred to the study by Incapacity Benefit Personal Advisers and Disability Employment Advisers using the criteria of mild/moderate levels of anxiety/depression, a desire to return to work but finding it

¹ Data on the final outcomes have been requested but are yet to be available

difficult because of mental health problems and a willingness to participate in a psychological therapy. Those referred were randomly assigned to either a group for immediate therapy or to a control group which waited eight weeks to commence the programme. No information was given on how random allocation was achieved (ie who did it, was it blind, etc.)

Those taking part were assessed on a number of measures of psychological health, employability and job-seeking behaviours at the start of the intervention, post intervention and at a three month follow-up stage. Additionally the control group was assessed at the start of the waiting period of eight weeks. The published standardised scales of Rosenberg Self Esteem, Beck Depression Inventory and Beck Anxiety Inventory were used. An Approach to Work scale and a Job-Seeking Behaviours scale designed by the author were also used but it is not stated if these questionnaires had been validated. The employment status of the participants was gathered at a three month follow-up.

The study is a progress report on the research using partial data, a point that was stressed by the author. Ten of the 67 people recruited to the research were deemed unsuitable because they had a range of problems outside the selection criteria such as drug or alcohol problems, traumatic brain injury or long-enduring mental problems. A further 17 dropped out and the reasons for this are not known by the author. Eighteen participants had completed the course and the remaining 22 people were still completing their eight weeks of CBT.

There were some notable discrepancies in the reporting of the findings section of the paper. The text and Table 4 of the paper refer to 14 out of the experimental group and four out of the control group as having completed the programme, however, these figures are transposed in Table 2 of the paper. Table 2 in the paper also indicates that 18 participants have completed their CBT but the text refers to 35 subjects who have finished their CBT intervention. 'Finished' is therefore assumed to refer to both the 18 completers and the 17 from both the experimental and control groups who dropped out of the programme.

The findings with regard to base line depression and anxiety scores also appear to be based on the sub-sample of 14 of the experimental group and four of the control group who have completed their CBT intervention plus the ten from the experimental group and the seven from the control group who have dropped out. It is reported that just over half of these participants reported high levels of depression and or anxiety at baseline but no further information is available about whether they were more likely to complete or leave the intervention.

Changes in depression anxiety and self esteem were assessed by comparing control group (n= 11) pre-intervention mean scores with intervention group (n=14) post intervention mean scores. These show significantly better scores in the intervention group for depression ($p=0.000$), self-esteem (0.016) and anxiety ($p=0.019$).

Primary outcome:

The interim results showed that four of the 57 participants allocated to receive CBT had found work but no further details are given and one had been referred to a job broker for help with securing a job.

Secondary outcomes:

The secondary outcome in the study of relevance to this review relates to improved employability. This was measured via ability to relate to others, work motivation, proactive job searching and control over job search. Frequency of job seeking behaviour was also assessed.

Results for the experimental group alone pre and post-intervention show significant increases in participants' control over their efforts to find work ($p=0.000$), their motivation towards work ($p=0.009$), their ability to relate to others ($p=0.028$) and their proactivity in job seeking ($p=0.036$). However, it is unclear whether these figures relate to all in the experimental group or just to those completing the intervention as no base numbers are given in the table presenting the mean scores.

No differences in actual job-seeking behaviour were found between the pre-intervention control group and the post-intervention experimental group immediately after finishing the CBT intervention. The author comments that is more realistic to expect to see increased job-seeking behaviours at the three month follow-up stage.

The paper presents no data concerning any of the secondary research questions listed in Section 1.2 of the introduction.

Limitations of the study

A number of limitations of the study were identified:

- The experience of CBT of those delivering the programme was limited and potential differences between them were not tested.
- No details of the intervention content are given.
- No reasons for the varying numbers of sessions among the participants are given.
- The sample of 57 individuals is small and details of the random allocation were not presented.
- Characteristics of the experimental and control groups in terms of gender, age or any other features were not given so the extent to which they were matched is not known.

- Two of the outcome measures were developed by the author and it is not known if these were validated.
- Differences between completers and those dropping out of the programme are not analysed.

Owing to these limitations of study design, both reviewers assessed this RCT study as ‘-’.

Evidence statement:

ER3.1: There is insufficient evidence from one RCT (grade -) to assess the efficacy of cognitive behavioural therapy delivered by Jobcentre Plus work psychologists over an eight week period in improving employment outcomes for incapacity benefit recipients with mild, moderate or severe anxiety and depression and expressing a desire to return to work (Winspear 2007).

3.2 Theme 2: Work-focussed interviews and access to employability support

Bewley et al. (2007)

This study (rated ‘+’) is a non-randomised area controlled trial based on a before and after comparison between areas that had implemented the Pathways to Work programme and similar areas which had not. The Pathways to Work pilot programme aimed to encourage employment among people claiming incapacity benefits through compulsory attendance at a work-focussed interview and access to return to work support.

In October 2003 the Pathways to Work initiative was launched in three Jobcentre Plus (JCP) districts in England, Wales and Scotland. Six months later, April 2004, pilots started in four more areas in England. The Pathways programme, at that time, involved a number of elements. Individuals aged between 18 and 60 not in work and making a claim for incapacity benefit (IB) were required to attend a Work Focussed Interview (WFI) with a trained IB Personal Adviser (IBPA) eight weeks after making their claim. Failure to attend the interview could have led to benefit sanctions. Claimants had to attend a further five WFIs unless they were judged either to have particularly severe medical conditions or likely to return to work without further help.

Participation in all other aspects of Pathways was voluntary and could involve the following elements:

- a ‘choices’ programme of training or support to help people enter the labour market, including the New Deal for Disabled People (NDDP) and a Condition

Management Programme (run with local health providers to help people manage their health condition);

- a Return To Work Credit (RTWC) – of £40 a week (for up to a year) for working over 16 hours a week in a job earning less than £15,000 pa;
- In-Work Support (IWS) including one or more of the following: mentoring, a job coach, occupational health support, financial advice and in-depth support to complement that provided by IBPAs and NDDP job brokers [no other information about this support is provided in the study];
- Advisers' Discretionary Fund (ADF) – to make purchases of up to £100 to help people find work.

The overall evaluation of the Pathways programme has a number of strands. This impact evaluation study examines the overall effect of the programme (and does not look at the component parts). It involved analysis of two streams of quantitative data for each of the two sets of pilot areas (those starting in October 2003 and those in April 2004):

- administrative data on the 23,300 claimants in the pilot areas during the study period (from the National Benefits Database) including personal characteristics and benefits claims history for each of 18 months after the initial benefit enquiry;
- data from telephone surveys of individuals who had started the claims process (although two slightly different sample frames were used one covering people who had made an initial enquiry and the other of those who had actually started making a claim). Surveys (of separate samples) were conducted soon after individuals made their first enquiry (baseline) and around 19 months after the initial enquiry. The sample sizes for the October 2003 and April 2004 pilots (ie before and after,) were 1794 (in both October 2003 and April 2004 pilot areas) before Pathways started and 1957 (October and April areas) at the follow-up point (details of response rates etc. were not provided in this report).

Equivalent administrative and survey data were also collected from comparable Jobcentre plus areas that had not yet implemented the Pathways to Work programme and which formed a control or comparison sample (the survey samples for the control areas were 723 (at the 'before' point) and 1310 (at the 'after' point)). No comparisons on the pilot and control samples are provided in this study report.

Primary outcomes

Average employment levels among those receiving the Pathways to work Programme were higher, but not significantly, than the equivalent people in the control areas and therefore not receiving the programme 18 months after their initial IB enquiry.

The impact analysis was conducted using a 'difference-in-difference' (DiD) approach which compares the difference between employment rates before and after the introduction of Pathways in the pilots areas with employment rates at the same points in the control areas using a regression framework to control for observable differences between the two samples. (The variables used in the DiD analysis of the survey data were: sex; age; dependent children; ethnicity; age left school; whether had a partner and partner's employment status; type of health problem experienced; length of time health problem lasted).

Using the survey data the authors found that employment levels for those receiving Pathways to Work were 7.4 percentage points above the estimated 'base' of 29.7 per cent who did not receive the programme ($p = 0.09$)¹. In other words, in the Pathways areas 37.1 per cent of those making an IB claim were in work 18 months on, compared with assumption that 29.7 per cent (based on data from the control areas) would have been in work if Pathways had not been operating. This employment effect was reported to be 'quite stable over the latest six or so months observable'. There was a smaller positive, but not significant, effect on employment of 16 hours a week or more ($p = 0.18$) and in paid work over 30 hours or more ($p = 0.40$) in people receiving the programme compared with those not receiving the programme.

The effect on earnings was positive (but not statistically significant ($p = 0.40$)).

There was a small positive effect at the 18 month point on the receipt of incapacity benefits (ie a reduction of 1.7 percentage points on a base of 51 per cent) but this was also statistically not significant ($p = 0.72$). Administrative data indicated that there was a larger effect in the first six months after making a claim which declined over time.

Overall these results indicate that Pathways increased the likelihood of working among those making a claim for Incapacity Benefits a year and half after the original IB enquiry.

Secondary outcomes

Participants were significantly less likely to report self-assessed health problems which affected day-to-day activity 'a great deal' – by an average 10.8 percentage points from the 49.8 per cent 'base' estimated from the control group ($p = 0.02$).

Sub-group analysis² showed that Pathways had:

¹ This is statistically significant at 90 per cent but not at 95 per cent confidence limits

² The analysis at sub-group level does not control for compositional differences between the sub-groups which may influence any observed effects. Thus, for example, if the employment effect is greater for women than for men it cannot be inferred that being female is likely to increase the effect

- stronger employment effects among women compared with men (the employment effect¹ for women (n = 1505, pilot and control sample combined) was an average of 13 percentage points, a statistically significant result comparing the pilots and the controls (p = 0.05), and compares with a three percentage point increase for men (n = 1786), which was not statistically significant (p = 0.62);
- stronger employment effects on those aged under rather than over 50 (employment among the under 50's (n = 2100) was 10.6 percentage points higher than it would have been without Pathways (p = 0.06)² compared with only 2.3 percentage points higher for the over 50's (n = 1190), (p = 0.75);
- little effect on the employment of those whose main health condition at first interview involved mental illness (employment levels among those with a mental illness (n = 700) was estimated to be -1.1 percentage points (ie lower than it would have been if Pathways had not been operating) (p = 0.9), compared with a 10.7 percentage points increase for those with no mental illness (n = 1985) (p = 0.06).

Limitations of the study

The study has been quality assessed and given a rating of '+'.

The authors state that the survey sample population was drawn from a different sample source to the administrative data (the former were those making an initial enquiry about and IB claim and the latter had actually started making a claim) and that this could have affected some of the results.

Of the seven pilot areas, three started Pathways in October 2003 and four in April 2004. During this time, considerable organisational change took place in the Jobcentre Plus offices as a new regime was introduced on an area by area basis. The Jobcentre areas involved in the October 2003 pilots were among those in the first wave of these changes and could have been disproportionately affected (eg in their ability to deal with claimants) compared to their control areas, some of which underwent the changes at a later date. For this and other related reasons most of the reported analysis was based on the latter areas.

of Pathways; rather, it is the case that the combined characteristics of women predispose them to being affected more by Pathways than men.

¹ Ie the estimated level of increase in the proportion employed above what it would have been in the absence of the programme (ie the counterfactual estimated from the control areas)

² This is statistically significant at 90 per cent but not at 95 per cent confidence limits

Evidence statement:

ER3.2: There is limited evidence from a non-randomised controlled trial (grade +) that a programme comprising attendance at a work-focussed interview and access to return to work support (including further interviews, employability training, help with managing their health condition, financial support and in-work occupational health and personal support) could be effective at increasing the chances of people on Incapacity Benefit (IB) being in work 18 months after initially enquiring about accessing IB. The employment effects appear to be stronger for women than men, those aged under, rather than over, 50 and people without rather than with mental illness. (Bewley et al. 2007)

3.3 Theme 3: Rehabilitation programme

Desouza et al. (2007)

A case series study; grade ‘-’ evaluating the Papworth Trust’s Early Rehabilitation Programme was conducted in 2007.

The programme, based in Eastern England, aims to provide those with physical or cognitive disabilities with ‘employment, medical and life skills’ to enable them to return to work and is open to anyone receiving incapacity benefit. The programme provides support for participants over a four to ten month period from a rehabilitation coordinator, case manager, job coach and assistant, vocational adviser, information technology assessor and vocational psychologist. Help from a literacy tutor, an occupational therapist and assistant, a consultant in rehabilitative medicine, a speech and language therapist and a physiotherapist is also used according to individual need. Clients are often enrolled in local adult education courses, vocational training and certification programmes aimed at the general population.

The study involved reviewing all the records of the 340 individuals who had contacted the Papworth Trust (a UK charity promoting equality, choice and independence for people with physical disabilities, sensory impairment and learning difficulties) between 1995 and December 2003 and had completed referral forms to assess their eligibility for the programme. This exercise identified 107 individuals who had started the rehabilitation programme with 94 completing it. The reasons for exclusion given in the paper were the non-attendance of the next recommended stage of the acceptance process (132), those who were not recommended for acceptance (73), those who left the programme before completion (13) and those who could not proceed as no funding was available (20). It should be noted that these stated reasons account for five more people than the total number of clients.

The median time for contact to be made with those completing the programme was 48 months after completion. No control group was established. The participants

comprised 87 males and 20 females with the following conditions: brain injuries (54 per cent), musculo-skeletal injuries (21 per cent), back injuries (14 per cent) and other injuries (11 per cent). All participants were contacted by phone to determine their vocational position at November 2004 but their responses were not validated.

Primary outcome:

The results showed that of the 94 who completed the programme at the time of follow up, 53 were employed, and two were in voluntary work. The remaining 39 were unemployed.

Secondary outcomes

Thirty-three participants were deemed 'work ready' when contacted. Work readiness was defined as having sufficient stamina, dexterity, basic cognitive skills and interpersonal skills to be able to seek and sustain employment with the help of schemes run by Disability Employment and Job Centres. It is unclear from the paper if just some of the participants undertake a work placement or if this is an integral part of the programme. However, at the end of these work placements those taking part are deemed 'work ready' and are given a written reference from their manager. The measures for assessing work readiness are also not reported in the paper.

The remaining six participants in the programme were unemployed but four were in education, although no further details are given in the paper about this, and two had achieved independent living which is one of the objectives of the programme.

When their conditions were considered those with back injuries and musculo-skeletal injuries appeared more likely to have returned to work (70 per cent) than those with brain injuries (34 per cent), however the base numbers are small, 37 for back and musculo-skeletal injuries and 58 for brain injuries.

This paper also presents no data concerning any of the secondary research questions listed in Section 1.2 of the introduction.

Limitations of the study:

The following limitations were identified in the study:

- The effectiveness of the intervention can not reliably be assessed in the absence of a control group.
- The effectiveness of the programme is evaluated after a different length of time for each of the participants rather than a fixed interval. The results therefore include those who have only just completed the programme along with those who took part nine years ago.

- A high number of people were excluded, ineligible or dropped out which produced a very selective sample (potentially self-selecting sample) which limits the generalisability of this intervention.

For these reasons the paper has been coded as a case series study; grade '-'.

Evidence statement:

ER3.3: There is insufficient evidence from one case series study (grade -) to assess the efficacy of the Papworth Trust's Early Rehabilitation Programme (comprising support for participants over a four to ten month period from a rehabilitation coordinator, case manager, job coach and assistant, vocational adviser, information technology assessor and vocational psychologist - help from a literacy tutor, an occupational therapist and assistant, a consultant in rehabilitative medicine, a speech and language therapist and a physiotherapist are also used according to individual need) in assisting the return to work of those on incapacity benefit because of disabling injuries (Desouza et al 2007).

3.4 Evidence tables for the two themes

Table 3.1 presents a summary of the evidence from the three included papers.

Table 3.1: Evidence tables for the studies included in the effectiveness review

Bewley et al. (2007)

Study details	Intervention, policy, strategy or programme description	Sample and setting	Duration of study and follow-up period/s	Primary and secondary outcomes	Results	Confounders and limitations
<p>Title and source: Bewley H, Dorsett R, Haile G The impact of Pathways to Work, DWP Research Report 435, 2007</p> <p>Study design: Before and after comparison study</p> <p>QA Grade: +</p>	<p>Aim: To evaluate the effect of the Pathways to Work pilot programme which aimed to encourage employment among people claiming incapacity benefits through compulsory attendance at a work-focussed interview and access to return to work support.</p> <p>Intervention: Individuals aged between 18 and 60 making a claim for incapacity benefit (IB) were required to attend a Work Focussed Interview (WFI) with a trained IB Personal Adviser (IBPA) eight weeks after making their claim. Claimants had to attend five further WFIs, unless they were judged either to have particularly</p>	<p>Included: 23,300 people in the seven pilot areas who made an enquiry about and/or started to make a claim for IB between 1 August and 30 November 2004. Findings based on administrative data for entire population and sample surveys of the population (and controls)</p> <p>Excluded: Those that were judged either to have particularly severe medical conditions or likely to return to work without further help were excluded from the programme. (It is not clear</p>	<p>Duration and follow-up: Administrative data were collected from the sample 18 months after their initial enquiry. These data were supplemented by survey data from two samples of a) 1794 enquirers and claimants in the pilot areas before Pathways started and b) 1957 IB enquirers and claimants in the pilot areas after Pathways started, compared with samples of a) 723 and b) 1310 in the</p>	<p>Primary outcomes Return to work (in employment (at 16 + or 30 + hrs pw) 18 months after their initial claim. Receipt of incapacity benefit, 18 months after their initial claim (and monthly during the intervening period. Earnings, 18 months after their initial claim. Secondary outcomes Self-reported health condition</p>	<p>Primary outcomes 18 months after their initial IB enquiry, the employment levels in the Pathways pilot areas among the eligible population were estimated to be 7.4 percentage points higher above the 29.7 per cent of individuals who would have been in work if Pathways had not been operating ($p = 0.09$). There was a smaller positive, but not significant, effect on employment of 16 hours a week or more ($p = 0.18$) and in paid work over 30 hours or more ($p = 0.4$). The effect on earnings was positive (but statistically insignificant, $p = 0.4$) There was a small positive effect on receipt of incapacity benefits (ie a reduction of 1.7 percentage points on a base of 51 per cent) but this was also statistically insignificant ($p = 0.72$). Administrative data indicated that there was a larger effect in</p>	<p>Identified by author: The survey sample population was drawn from a different sample source to the administrative data (the former were those making an initial enquiry about and IB claim and the latter had actually started making a claim). Of the seven pilot areas, three started Pathways in October 2003 and four in April 2004. Due to the timing of its implementation, changes in the Jobcentre Plus may have had a greater impact on the October 2003 areas relative to its</p>

<p>severe medical conditions or likely to return to work without further help. Other aspects of the programme were voluntary and could involve:</p>	<p>whether they were similarly excluded from the surveys in the pilot and control areas)</p>	<p>comparison areas over the same time periods.</p>	<p>the first six months after making a claim which declined over time</p> <p>These results indicate that Pathways increased the likelihood of working among those not receiving benefits a year and half after the original IB enquiry</p>	<p>comparator areas than the April 2004. For this and other related reasons most of the reported analysis was based on the latter areas</p>
<ul style="list-style-type: none"> - access to a 'choices' programme of training or support to help people enter the labour market; - a Condition Management Programme (run with local health providers to help people manage their health condition); - Return To Work Credit (RTWC) - of £40 pw for jobs >16hrs pw earning less than £15,000 pa; - In-Work Support (IWS) including mentoring, occupational health support, financial advice; - Advisers' Discretionary Fund ADF) - to make purchases of up to £100 to help people find work. 	<p>Setting:</p> <p>Seven Jobcentre Plus districts, one in Scotland, one in Wales and five in England</p>	<p>Secondary outcomes</p>	<p>Participants were significantly less likely to report self-assessed health problems which affected day-to-day activity 'a great deal' by 10.8 ppts from a base of 49.8 per cent (p = 0.02).</p>	<p>Identified by reviewer:</p> <p>none</p>
<p>Comparison:</p>	<p>Benefits claimants in</p>	<p>Sub-group analysis showed that Pathways had:</p>	<p>stronger employment effects on women rather than men (the impact estimate for women was 13 ppts p = 0.05, compared with 3 ppts for men, p = 0.62);</p>	<p>stronger employment effects on those aged under rather than over 50 (the impact estimate for <50's was 10.6 ppts p = 0.06, compared with 2.3 ppts for >50's, p = 0.75);</p>
<p>little effect on the employment of those whose main health condition at first interview involved mental illness (the impact estimate for those with a mental illness was -1.1 ppts p = 0.9, compared with 10.7 ppts for those with no mental illness, p = 0.06).</p>				

36 Interventions to Help Recipients of Incapacity Benefits Back to Work

comparable non-pilot
areas

Desouza et al. (2007)

Study details	Intervention, policy, strategy or programme description and comparison	Sample and setting	Duration of study and follow-up period/s	Primary and secondary outcomes	Results	Confounders and limitations
<p>Title and source: M. Desouza, M. Sycamore, S. Little & S.G.B. Kirker- 2007</p> <p>Study design: Case series study</p> <p>Grade: -</p>	<p>Intervention: Evaluation of Papworth Trust Early Rehabilitation Programme:- Delivered by Papworth Trust, using job coaching, occupational therapy and medical rehabilitation.</p> <p>Comparison: None</p>	<p>Sample: 107 patients on incapacity benefit starting programme between 1995 and 2003. 87 Male, 20 female.</p> <p>41 traumatic brain injury, 22 musculo-skeletal Injuries, 17 acquired brain injury, 15 back injuries, 8 amputees and 4 other.</p> <p>Setting: Eastern England Programme carried out in centres and evaluated subsequently by follow-up in 2004.</p>	<p>Duration: Programme carried out between 1995 and 2003. Duration is 4-10 months dependent upon patient.</p> <p>Follow-up: Follow-up in 2004 (median time to follow-up 48 months after completion of the programme).</p>	<p>Primary outcomes: Self-reported return to work. Unvalidated. Self- reported "ready to work". Unvalidated.</p> <p>Secondary outcomes: None reported in paper</p>	<p>Primary outcomes: Of the 94 completing the programme at follow-up there were: 56% (53) employed 31% (33) work ready 4% (4) in education, 2% (2) in voluntary work. 2% (2) achieved independent living Completers: % of those with condition achieving employment traumatic brain injury 32% (13) acquired brain injury 41% (7) musculo-skeletal injuries 64% (14) back injuries 80% (12) amputation 62% (5) Other 50% (2)</p> <p>Secondary outcomes: None reported in the paper.</p>	<p>Identified by author: High drop-out rate 13 of 107 starting programme</p> <p>Identified by reviewers: Lack of a control group means effectiveness cannot be reliably assessed Effectiveness of the programme is assessed after differing lengths of time from just completed programme to nine years High number of people were excluded, ineligible or dropped out producing a selective sample</p>

Winspear (2007)

Study details	Intervention, policy, strategy or programme description and comparison	Sample and setting	Duration of study and follow-up period/s	Primary and secondary outcomes	Results	Confounders and limitations
<p>Title and source: Winspear D, 'Using CBT to improve employment outcomes for incapacity benefit customers: Interim report', <i>Journal of Occupational Psychology, Employment and Disability</i>, Vol 9, No 1, Spring 2007, p 41-51</p> <p>Study design: Randomised controlled trial (individual)</p> <p>Grade: -</p>	<p>Intervention: Cognitive Behavioural Therapy (CBT) delivered by Jobcentre Plus work psychologists over an 8 week period, with a minimum of 6 and a maximum of 18 sessions (mean = 8.7).</p> <p>Comparison: No CBT - waiting list controls (start of treatment programme delayed by 8 weeks. Authors also compare experimental group before and after CBT.</p>	<p>Sample: 57 Incapacity Benefit recipients with mild, moderate or severe anxiety and depression desiring to return to work.</p> <p>No further demographic or employment details given</p> <p>Experimental group = 31, control group = 26</p> <p>(NB. Figures wrong way round in table 2 in the paper).</p> <p>Setting: Newham and Doncaster</p>	<p>Duration: Eight week programme.</p> <p>Follow-up: post-programme assessment plus 3month follow-up.</p>	<p>Primary outcomes: Return to work (self reported)</p> <p>Secondary outcomes: Psychological health (Beck's Depression and Anxiety Inventories, Rosenberg Self Esteem Scale); employability (Approach to Work Questionnaire, comprising 4 dimensions: relating to others, work motivation, proactive job searching, control over job search [Winspear 1998]); Frequency of self-reported job seeking behaviour (factual questionnaire)</p>	<p>INTERIM FINDINGS ONLY</p> <p>Primary outcomes: The interim results showed that four of the 57 participants allocated to receive CBT had found work but no further details are given and one had been referred to a job broker for help with securing a job.</p> <p>Secondary outcomes: Compared with baseline/pre-CBT levels: CBT reduces depression (p=0.000) and anxiety (p=0.019) and improves self-esteem. Secondary outcomes: CBT completers (both intervention and control groups) reported improved employability on 4 dimensions (ability to relate to others (p=0.028), work motivation (p=0.009), proactive job searching ((p=0.036), control over job search (p=0.000)) and sought information about jobs more often. Four found work.</p>	<p>Identified by author: Interim findings only.</p> <p>Identified by reviewers: CBT deliverers trained to different levels; short-term training only</p> <p>No details of intervention content</p> <p>No reasons given for varying numbers of sessions among participants</p> <p>Very small sample</p> <p>Details of random allocation not specified</p> <p>Extent to which control and experimental group were matched is unknown</p> <p>Not known if two outcome measures were validated</p> <p>Differences between completers and those dropping out were not analysed</p>

3.5 Applicability of the evidence to the UK populations in the scope

Three studies have been included in the effectiveness review; one describing the use of CBT sessions with those on incapacity benefit to improve vocational outcomes (Winspear, 2007), one evaluating a rehabilitation programme to aid return to work for those with disabling injuries (Desouza et al. 2007) and the third was a major evaluation of a change in the level and nature of support provided to Incapacity Benefit claimants piloted in areas throughout Great Britain (Bewley et al. 2007).

The Winspear study had a number of limitations which led to its ‘-’ rating. No details were given of the intervention content, the method of random allocation, the varying number of sessions among the participants or the characteristics of the experimental and control groups to assess the extent to which they were matched. In addition the experience of CBT of those delivering the programme was limited and the potential differences between them were not tested. Any differences between those completing the programme and those that dropped out were similarly not analysed. Two of the outcome measures were developed by the author and it is not clear if these were validated.

The Desouza paper also attracted a ‘-’ score because there was no control group and a high number of people were excluded, ineligible or dropped out which gave a very selective sample. The effectiveness of the programme was also assessed at a fixed point in time which meant that some participants had only just completed the intervention while others took part nine years ago.

The Bewley evaluation had fewer limitations and was based on comparisons of IB recipients in pilot areas and areas selected as control, although each of the areas did not start the intervention at the same time and the authors had some concerns about the use of different sample frames which limited its rating to ‘+’.

The first two studies provide insufficient evidence to judge the effectiveness of the interventions. Furthermore their applicability to the wider UK population of those on Incapacity Benefit is also limited as the interventions were targeted at the two specific groups. On the other hand, Bewley does provide evidence to indicate that the changes to what happens to potential claimants when the first make an application for IB and the support they are offered to return to work at that points could be effective across Great Britain, if not the UK, at increasing their rate of employment.

4 Cost Effectiveness Findings

4.1 Cost-effectiveness results

No studies were found that satisfied the inclusion criteria for this cost-effectiveness review (see 2.7.2 above). The full papers of 22 potentially relevant primary studies were requested and they have all been received. However, each of these papers have subsequently been excluded. A paper could be excluded for failing to satisfy more than one of the necessary criteria, but for ease of reporting the most obvious excluding criterion is reported below. As a result, no data extraction or quality assessment of any studies, and no synthesis was undertaken.

Table 4.1: Reasons for exclusion of cost-effectiveness studies

Study	Not UK population	Not a population in receipt of benefit	Not an economic evaluation
Abasolo et al (2005)	✓		
Ballegaard et al (1996)	✓		
Brewer et al (2006)		✓	
Campolieti M. (2001)	✓		
CCOHTA (1992)	✓		
Cullberg J, et al. (2006)	✓		
Fritz JM, et al (2003)	✓		

Study	Not UK population	Not a population in receipt of benefit	Not an economic evaluation
Gatchel et al (2003)	✓		
Gill (1996)		✓	
Hunter SJ, Shaha S, Flint D, Tracy DM. (1998)			✓
Jordan KD et al (1998)			✓
Leon AC, Walkup JT, Portera L. (2002)	✓		
Miller et al (2002)		✓ **	
Monpere et al (2000)	✓		
Pinnington MA, Miller J, Stanley I. (2004)		✓	
Seekamp A, Regel G, Tscherne H. (1996)	✓		
Shaw W et al (2006)	✓		
Thomas C, Morris S. (2003)			✓
Turk DC, Okifuji A. (1998)	✓		
Turk D et al (2001)	✓		
Turk D et al (2004)	✓		
Zeitler (1991)	✓		

* See Figure 2.2 above

** Only one-fifth of population in receipt of benefit and results for this population are not given separately

4.2 Applicability of the evidence to the UK populations in the scope

The absence of evidence here does not permit any comment on the cost effectiveness of interventions to help people back to work or to prepare for work who are resident in the UK and in receipt of incapacity benefit. This absence of economic evaluation is not surprising given the very small number of studies for this population and topic (see Section 3).

5 Discussion

5.1 Effectiveness Findings

The effectiveness review for Q4 identified only three papers which met the inclusion criteria for the review.

5.1.1 Cognitive behavioural therapy

The first study (Winspear, 2007) is a randomised controlled trial of a cognitive behavioural intervention therapy (CBT) and was rated as being of low (ie '-') methodological quality. The intervention consisted of an eight week programme of varying numbers of CBT based sessions (no information on session content is given) being delivered to Incapacity Benefit recipients. Limited information is given about return to work outcomes and it is difficult to identify from the paper whether increases in employability apply to all the intervention group, or only those who completed the intervention. As a result there is insufficient evidence from one study to assess the effectiveness of CBT in improving employment outcomes for incapacity benefit recipients with mild, moderate or severe anxiety or depression and expressing a wish to return to work.

5.1.2 Work focussed interviews plus access to employability support

The second study (Bewley et al, 2007) was a 'non-randomised controlled study', rated as being of medium methodological quality and provides evidence that participation in a Pathways to Work pilot programme resulted in a small, positive increase in the number of those in employment at 18 months (when compared to those who would have been in work at 18 months without the Pathways to Work intervention). The Pathways to Work pilot programme consisted of several elements including:

- a compulsory work focused interview (and up to five compulsory follow up interviews) and voluntary participation in any or all of :
 - training, and/or
 - a return to work credit, and/or
 - in work support
- Additionally, advisers had access to a discretionary fund to make purchases of up to £100 to help people find work.

The study provide sufficient evidence to indicate the intervention is likely to be effective at increasing the chances of people on Incapacity Benefit (IB) being in work 18 months after initially enquiring about accessing IB. The study also found that the employment effects were stronger for women than men and those aged under, rather than over, 50.¹

5.1.3 Rehabilitation programme

The remaining paper (Desouza, 2007) was a case series study rated as being of poor methodological quality. The study examined the impact of an early rehabilitation programme (The Papworth Trust's Early Rehabilitation Programme) comprising of multiple inputs from:

- Rehabilitation co-ordinator
- Case manager
- Job coach
- Vocational advisor
- Information technology assessor
- Vocational psychologist

The programme is open to anyone receiving incapacity benefit and aims to provide participants with employment, medical and life skills over a four to ten month period to enable them to return to work. The study found that 53 of 94 participants were in employment at the point of follow up. The lack of a comparison group means it is not possible to say if this is a better or worse outcome than 'care as usual'. As a result there was insufficient evidence to assess the efficacy of this particular rehabilitation programme.

¹ These findings are supported by a range of other studies about the Pathways programme which are not included in this review as they do not meet the inclusion criteria.

Overall, it should be born in mind that the quality ratings for different types of study design cannot be directly compared and that a weak RCT such as Winspear is a more robust study design than either the before and after or case series research reported by Bewley and Desouza respectively.

5.2 Cost-effectiveness findings

The cost-effectiveness review was unsuccessful in identifying any economic evaluations of interventions to help UK recipients of incapacity benefit to return to work.

5.3 Conclusions

The search for the literature was comprehensive and considerable effort was made to limit bias in the identification, selection, extraction and appraisal of the literature. Overall, this review has identified a paucity of evidence in relation to the effectiveness of interventions and a complete lack of evidence for the cost effectiveness of interventions that met the requirements of the research question and the inclusion and exclusion criteria (eg UK studies based on an RCT or longitudinal methodology).

Two conclusions are apparent. Firstly that the effectiveness and cost effectiveness reviews for research question 4 have identified a need to generate new research in this area as there is so little research which meets the specified inclusion criteria and evaluates the impact of interventions, strategies, programmes and policies to aid those on incapacity benefits to return to work. Second, some form of economic evaluation of interventions that appear to be effective would be helpful (in this case the only example being the Pathways to Work pilot reported on by Bewley et al (2007).¹

This clearly represents a gap in the evidence base, at least in terms of the types of primary studies included in this review. It can be concluded that there is insufficient UK information of this sort on which to base detailed policy and practice, but that this report identifies clear gaps for future research.

In the absence of a sufficient research base, one option is to take into account evidence from other OECD countries. The different contexts and benefit regimes operating in other countries will undoubtedly limit the transferability of any findings (and this was one of the reasons that this review focussed just on the UK). However, given the time it would take to build up a substantial body of evidence, future reviews of this area may benefit from developing a way of at least drawing out the principles operating in other countries to see if any lessons can be learnt for the UK

¹ Reference to a cost benefit analysis is made in the range of literature about Pathways to Work, but no published study was found during searching

References

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- Health and Safety Executive (2004), *Managing sickness absence in the public sector: A joint review by the Ministerial Task Force for Health, Safety and Productivity and the Cabinet Office*
- NHS CRD (2001), *Undertaking systematic reviews of research on effectiveness*, NHS Centre for Reviews and Dissemination, Report No 4, University of York
- Waddell G, Burton AK (2006), *Is work good for your health and well-being?*, Department of Work and Pensions
- Winspear D, 'Using CBT to improve employment outcomes for incapacity benefit customers: Interim report', *Journal of Occupational Psychology, Employment and Disability*, Vol 9, No 1, Spring 2007, p 41-51.

Appendix 1: Example Search Strategy Used for Research Question 4

MEDLINE primary study search strategy research

new deal adj2 disabled

pathways to work

return adj2 work adj5 disabilit\$

return adj2 work adj5 incapacity

sickness adj3 benefit\$

invalidity adj3 benefit\$

incapacity adj3 benefit\$

disability adj3 benefit\$

sickness adj3 leave

invalidity adj3 leave

incapacity adj3 leave

disability adj3 leave

sickness adj3 allowance\$

invalidity adj3 allowance\$

incapacity adj3 allowance\$

disability adj3 allowance\$

sickness adj3 pension\$

invalidity adj3 pension\$

incapacity adj3 pension\$

disability adj3 pension\$

sickness adj3 payment\$

invalidity adj3 payment\$

incapacity adj3 payment\$

disability adj3 payment\$

DISABILITY-INSURED

NDDP

IB adj5 (incapacity or benefit\$)

access to work

or/1-28

Appendix 2: Sifting Criteria Used

The following pages constitute the NICE Absence Sift Criteria for Question 4.

NICE Absence Sift Criteria: Effectiveness primary studies Q4

The ultimate aim of Question 4 of the review is to provide guidance on what interventions, programmes, policies or strategies are effective and cost effective in helping those in receipt of incapacity benefit to return to full or part time work?

For all titles and abstracts answer ALL questions UNLESS excluded at any stage

	QUESTION	ANS	QUALIFIER	ACTION		
1	Is this a primary study evaluation of an intervention, policy, strategy or programme which focuses on helping recipients of incapacity benefit (or another (or previous) sickness/ill health related benefit such as invalidity benefit) return to work?	No	Review/ Systematic review or meta analysis	Code as rev		
			Economic data	Code as Econ		
			Other	Exclude		
		Yes	Doc type dissertation	Exclude		
			Intervention – deals solely with the provision of pharmacological treatment	Exclude		
			Intervention – deals solely with effectiveness of IB system, private health insurance schemes or statutory sick pay	Exclude		
			Intervention – delivered in a non-primary care setting without primary care or employer involvement in its planning, design, delivery, management or funding	Exclude		
			Other	Go to Q2		
		Unclear		Code as unclear & go to Q2		
2	Is the study based in the UK?	No		Exclude		
		Yes		Go to Q3		
		Unclear		Code as unclear &		

	QUESTION	ANS	QUALIFIER	ACTION
				Go to Q3
3	Does the study measure return to work related outcomes?	No		Exclude
		Yes	Return to full or part time employment	Code as R4 & go to Q4
		<i>Unclear</i>	Some other work related outcome	Code as unclear
4	Is the study longitudinal?	No		Exclude
		Yes		Include
		<i>Unclear</i>		GFP
Enter decision – if any ‘unclear’ code as GFP				
Q4	Book chapter?	Yes		Tag

NICE Absence Sift Criteria:

Economics (primary studies and reviews) Q4

The ultimate aim of the economics reviews is to provide guidance on the most cost effective actions to manage sickness absence and support return to work or to help those in receipt of incapacity benefit to return to full or part time work

For all titles and abstracts answer ALL questions UNLESS coded as exclude at any stage

	QUESTION	ANS	QUALIFIER	ACT'N
Q1	<p>Is the study a comparative economic evaluation of an intervention, policy, strategy or programme which focuses on helping recipients of incapacity benefit (or another (or previous) sickness/ill health related benefit such as invalidity benefit) return to work?</p> <p><i>ie study type is "cost-effectiveness", "cost consequences", "cost benefit", "cost-utility", "cost-minimisation" or reports outcomes cost per x gained or cost per x avoided or net monetary benefit (cost benefit only). Code as unclear anything with costs and consequences reported separately but doesn't call it any of the above.</i></p> <p><i>ie. not costs of an illness</i></p>	Yes	Population – if focuses solely on children (16 & under)	Exclude
			Intervention – delivered in a non-primary care setting without primary care or employer involvement in its planning, design, delivery, management or funding delivered solely in a developing country	Exclude
			Absence - not due to sickness (eg maternity leave)	Exclude
			Topic – if focuses solely on pharmacological treatment	Exclude
			Topic – if focus is prevention of 1 st instance of sickness absence	Exclude
			Topic – if focuses solely on effectiveness of IB system, private health insurance schemes or statutory sick pay	Exclude
			Abstracts describes comparative economic evaluation of an intervention, policy etc	Go to Q2
		Unclear	Abstracts unclear if comparative economic evaluation of an intervention, policy etc	Code U/C & go to Q2
		Abstracts includes work related costs & consequences but not comparative economic evaluation of	Code - Modelling	

	QUESTION	ANS	QUALIFIER	ACT'N
			intervention, policy etc	
		No		Exclude
Q2	Does the study contain work related outcome measures?	No		Exclude
		Yes	Return to full or part time employment	Go to Q3
			Some other work related outcome	Code Oth
		<i>Unclear</i>		Code U/C
Q3	Is the study based in UK	No	If relevant to R1, R2, R3, include there, if not, exclude	Exclude
		Yes		Code as Review 4
		<i>Unclear</i>		Code U/C
Enter decision in final column – if any ‘unclear’ code as GFP				
Tag if book chapter				

NICE Absence Sift Criteria: Effectiveness reviews Q 1 to 3 and Q4

The ultimate aim of the review is to provide guidance on the most effective actions to manage sickness absence and support return to work or to help those in receipt of incapacity benefit to return to full or part time work

For all titles and abstracts answer ALL questions UNLESS coded as exclude at any stage

	QUESTION	ANS	QUALIFIER	ACTION
Q1	Is the article a review of interventions, policies, strategies or programmes aimed at reducing sickness absence or aiding return to work?	Yes	Population – if focuses solely on children (16 & under)	Exclude
			Setting – if related to reducing sickness absence and delivered in non workplace or non primary care setting (check IB relevant)	Exclude
			Setting - delivered solely in a developing country	Exclude
			Absence - not due to sickness (eg maternity leave)	Exclude
			Intervention – if solely health promotion or prevention of 1st instance	Exclude
			Intervention – if focuses solely on pharmacological treatment	Exclude
			Intervention – deals solely with effectiveness of IB system, private health insurance schemes or statutory sick pay	Exclude
			Intervention, policy etc – other	Go to Q2
		Unclear	Intervention, policy etc – unclear	unclear & go to Q2
		No		Exclude
Q2	Is it a review of	Yes		Go to

	QUESTION	ANS	QUALIFIER	ACTION
	longitudinal studies?			Q3
		No		Exclude
		<i>Unclear</i>		unclear & go to Q3
Q3	Does the review report on work related outcome measures?	No		Exclude
		Yes	Reduce the numbers of employees moving from short to long term sickness absence?	code Review 1
			Aid the return to work of employees after long term sickness absence?	code Review 2
			Reduce the re-occurrence of an employees long term sickness absence?	code Review 3
			Assist UK incapacity benefit recipients in returning to work	Go to Q4
			Other work-related outcome	Code Other
		<i>Unclear</i>		Code unclear
Q4	Does the review contain data from (a) UK based study/ies	No		Exclude
		Yes		Include
		<i>Unclear</i>		Code unclear
	TAG		Book chapter	Tag
			Economics data	Tag
			Primary study	Tag
Enter decision in final column – if any ‘unclear’ code as GFP				

Appendix 3: Full Paper Screening Checklists

Full paper screening TRIAGE Form: Q4 Effectiveness (primary study)		Reference Manager ID No:
Paper checked by:	Date of check:	
Population: Is the study an evaluation of an intervention/policy/strategy/programme which aims to help adults (over 16) who are unemployed and in receipt of incapacity benefit (or a previous form of incapacity benefit or other similar benefit) return to work (paid and unpaid)?		Yes No unclear
Is the study set in the UK?		Yes No unclear
Intervention: Is the intervention/policy/strategy/programme being delivered in a primary-care setting and/or workplace setting and/or planned, designed, delivered, managed or funded in collaboration with primary care providers and/or employers? <i>These interventions etc. can be delivered by a number of providers (such as voluntary, private, statutory sector) and/or in various settings not just workplace or primary care setting (such as job centres, community centres) as long as they are fully or co-planned, designed, delivered, managed and/or funded in collaboration with employers and primary care service). Interventions can include mixed component studies - eg treatment and public health</i>		Yes No unclear
Outcome: Is one of the following outcomes being measured:		
Return to work (paid/unpaid) ¹		Yes No unclear
Sustained return to work (paid/unpaid)		Yes No unclear
No effect on return to work, job-related activity or any other work related outcome		Yes No unclear
If yes to Q4, are any other work related outcomes measured (ie uptake of or increased job seeking; increase in work experience and vocational training and increase in skills/knowledge for work/unpaid work or alternative career/work) Yes No Unclear		
Study Design: Is the study longitudinal in design (ie at least one measurement after baseline) If yes to Q6, What is the study design?:		Yes No Unclear
RCT		

<p>Controlled before and after Cohort Case control Before and after Interrupted Time Series Other (please specify)..... IF ANY 1-5 = 'NO', CHECK Q8 THEN EXCLUDE</p>																
<p>If 1-5 all Yes, does the study meet any of the following exclusion criteria: Study – pre 1990 Study not English language Deals solely with the provision of treatment for existing conditions (including pharmacological or therapeutic interventions) Deals solely with the effectiveness of the incapacity benefit system, private health insurance schemes or statutory or occupational sick pay. Deals solely with preventing ill-health retirement (ie where recipient has no intention of returning to work)</p> <p>IF ANY Q6 = 'YES', CHECK Q8 THEN EXCLUDE IF ANY Q1-6 = 'UNCLEAR', CHECK Q8 THEN REFER FOR SECOND OPINION</p>	<table border="0"> <tr> <td>Yes</td> <td>No</td> <td>unclear</td> </tr> <tr> <td>Yes</td> <td>No</td> <td>unclear</td> </tr> <tr> <td>Yes</td> <td>No</td> <td>unclear</td> </tr> <tr> <td>Yes</td> <td>No</td> <td>unclear</td> </tr> <tr> <td>Yes</td> <td>No</td> <td>unclear</td> </tr> </table>	Yes	No	unclear	Yes	No	unclear	Yes	No	unclear	Yes	No	unclear	Yes	No	unclear
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<p>If the study is a combined intervention, can the public health data be disaggregated? Does the study contain economic/cost data or effectiveness data relevant to the other research questions* OR data relevant for the economic modelling for this research question (which does not have to be UK)</p> <p>IF Q7 = 'NO', TAG AS MIXED, CHECK Q8 THEN EXCLUDE IF ANY Q1-7 = 'UNCLEAR', CHECK Q8 THEN REFER FOR SECOND OPINION</p>	<table border="0"> <tr> <td>Yes</td> <td>No</td> <td>Unclear</td> </tr> <tr> <td>Q1</td> <td></td> <td></td> </tr> <tr> <td>Q2</td> <td></td> <td></td> </tr> <tr> <td>Q3</td> <td></td> <td></td> </tr> <tr> <td>Modelling</td> <td></td> <td></td> </tr> </table>	Yes	No	Unclear	Q1			Q2			Q3			Modelling		
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<p>Put forward for QUALITY ASSESSMENT and DATA EXTRACTION (studies to be grouped by study design type)</p>																

(*Q1 Preventing/reduce employees moving from short to long term sickness; Q2 Help employees return to work from LTSA; Q3 prevent the re-occurrence of LTSA)

Full paper screening TRIAGE Form: Q4 Economics (primary study)		Reference Manager ID No:
Paper checked by:	Date of check:	
<p>Population: Is the study an evaluation of an intervention/policy/strategy/programme which aims to help adults (over 16) who are unemployed and in receipt of incapacity benefit (or a previous form of incapacity benefit or other similar benefit) return to work (paid and unpaid)?</p> <p>Is the study set in the UK?</p> <p>Intervention: Is the intervention/policy/strategy/programme being delivered in a primary-care setting and/or workplace setting and/or planned, designed, delivered, managed or funded in collaboration with primary care providers and/or employers <i>These interventions etc. can be delivered by a number of providers (such as voluntary, private, statutory sector) and/or in various settings not just workplace or primary care setting (such as job centres, community centres) as long as they are fully or co-planned, designed, delivered, managed and/or funded in collaboration with employers and primary care service)? Interventions can include mixed component studies (eg treatment and public health studies)</i></p> <p>Outcome: Is one of the following outcomes being measured: Return to work (paid/unpaid) Sustained return to work (paid/unpaid) No effect on return to work, job-related activity or any other work related outcome</p> <p>If yes to Q4, are any other work related outcomes measured (ie uptake of or increased job seeking; increase in work experience and vocational training and increase in skills/knowledge for work/unpaid work or alternative career/work) Yes No unclear</p> <p>Study design: Is the study an economic evaluation (ie an RCT or longitudinal study with at least one follow up measure after baseline) with cost effectiveness, cost benefit, cost utility, cost minimization or net monetary (cost) benefit data?</p> <p>If yes to Q5, What is the study design? Cost benefit (CBA) Cost effectiveness Cost utility Other</p>		<p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p>
IF ANY 1-5 = 'NO', CHECK Q8 THEN EXCLUDE		
<p>If 1-5 all Yes, does the study meet any of the following exclusion criteria:</p> <p>Study – pre 1990 Study not English language Deals solely with the provision of treatment for existing conditions (including pharmacological or therapeutic interventions) Deals solely with the effectiveness of the incapacity benefit system, private health insurance schemes or statutory or occupational sick pay. Deals solely with preventing ill-health retirement (ie where recipient has no intention of returning to work)</p>		<p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p> <p>Yes No unclear</p>
IF ANY Q6 = 'YES', CHECK Q8 THEN EXCLUDE		

<p>If the study is a combined intervention, can the public health data be disaggregated? Does the study contain economic/cost data or effectiveness data relevant to the other research questions* OR data relevant for the economic modelling for this research question (which does not have to be UK)</p> <p style="text-align: center;"> IF Q7 = 'NO', TAG AS MIXED, THEN EXCLUDE IF ANY Q1-7 = 'UNCLEAR', REFER FOR SECOND OPINION </p>	<p>Yes No Unclear</p> <p>Q1</p> <p>Q2</p> <p>Q3</p> <p>Modelling</p>
<p>Put forward for QUALITY ASSESSMENT and DATA EXTRACTION (studies to be grouped by study design type)</p>	

* Q1 – Preventing/reduce employees moving from short to long term sickness; Q2 Help employees return to work from LTSA; Q3 prevent the re-occurrence of LTSA

Full paper screening TRIAGE Form: Q4 Reviews		Ref Man ID No:		
Paper checked by:		Date of check:		
<p>Population: Does the review partly or wholly cover evaluations of an intervention/policy/strategy/programme which aims to help adults (over 16) who are unemployed and in receipt of incapacity benefit (or a previous form of incapacity benefit or other similar benefit) return to work (paid and unpaid)?</p> <p>Is at least one of the studies in the review set in the UK?</p> <p>Intervention: Is at least one of the studies in the review an evaluation of an intervention/policy/strategy/programme being delivered in a primary-care setting and/or workplace setting and/or planned, designed, delivered, managed or funded in collaboration with primary care providers and/or employers <i>These interventions etc. can be delivered by a number of providers (such as voluntary, private, statutory sector) and/or in various settings not just workplace or primary care setting (such as job centres, community centres) as long as they are fully or co-planned, designed, delivered, managed and/or funded in collaboration with employers and primary care service)?</i></p> <p>Outcome: Is one of the following outcomes being measured: Return to work (paid/unpaid) Sustained return to work (paid/unpaid) No effect on return to work, job-related activity or any other work related outcome</p> <p>If yes to Q4, are any other work related outcomes measured (ie uptake of or increased job seeking; increase in work experience and vocational training and increase in skills/knowledge for work/unpaid work or alternative career/work) Yes No unclear</p> <p>Study design: Does the review include at least one RCT or longitudinal study (eg. the same data collected from at least 2 different points in time)?</p> <p>If yes to Q6 does it contain effectiveness studies or economic evaluations with cost effectiveness, cost benefit, cost utility, cost consequences, cost minimization or net monetary (cost) benefit data?</p> <p style="text-align: center;">IF ANY 1-5 = 'NO', CHECK Q8 THEN EXCLUDE</p>		Yes	No	unclear
		Yes	No	unclear
		Yes	No	unclear
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		Yes	No	unclear
		Yes	No	unclear
		Yes	No	unknown
		Yes	No	unknown
<p>If 1-5 all Yes, does the review meet any of the following exclusion criteria:</p> <ul style="list-style-type: none"> Review – pre 1990 Review not English language Deals solely with the provision of treatment for existing conditions (including pharmacological or therapeutic interventions) Deals solely with the effectiveness of the incapacity benefit system, private health insurance schemes or statutory or occupational sick pay. Deals solely with preventing ill-health retirement (ie where recipient has no intention of returning to work) <p style="text-align: center;">IF ANY Q7 = 'YES', CHECK Q8 THEN EXCLUDE</p>		Yes	No	unclear
		Yes	No	unclear
		Yes	No	unclear
		Yes	No	unclear
		Yes	No	unclear
<p>*Does the review contain economic/cost data or effectiveness data relevant to the other research questions OR data which may be useful for the economic modelling (specify).....</p>		Yes	No	unclear



<p style="text-align: center;">If any Q1-8 = 'UNCLEAR', REFER FOR SECOND OPINION</p>	
<p>Check review references against Ref Man and if not in Ref Man file order for abstract appraisal</p>	

* Q1 – Preventing/reduce employees moving from short to long term sickness; Q2 Help employees return to work from LTSA; Q3 prevent the re-occurrence of LTSA

Appendix 4: Excluded Primary Studies by Reason for Exclusion

Effectiveness studies: Excluded studies by reason

Non intervention, policy, programme or strategy

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Appendix 5: Studies Pending

There were no effectiveness or cost effectiveness primary or review studies pending

Appendix 6: Example Completed Effectiveness Data Extraction and Quality Checklists

Data Extraction Form	Ref ID: Q4 Other 3569
Authors/Title/Source	
M Desouza, M Sycamore, S Little, S G B Kirker 'The Papworth Early Rehabilitation Programme', <i>Disability and Rehabilitation</i> , April 2007, 29 (8), 671-677	
Project: LTSI	
Data extracted by: CM	Date of extraction: 19.11.07
Describe the study:	
Systematic review (including at least one RCT)	<input type="checkbox"/>
Systematic review of experimental studies	<input type="checkbox"/>
Systematic review of observational studies	<input type="checkbox"/>
Randomised controlled trial: Individual	<input type="checkbox"/>
Randomised controlled trial: Cluster	<input type="checkbox"/>
Controlled non-randomised trial	<input type="checkbox"/>
Controlled before-and-after	<input type="checkbox"/>
Interrupted time series	<input type="checkbox"/>
Before and after study	<input type="checkbox"/>
Cross sectional (survey)	<input type="checkbox"/>
Audit/Evaluation	<input type="checkbox"/>

Economic analysis	<input type="checkbox"/>
Case study	<input checked="" type="checkbox"/>
Local practice report	<input type="checkbox"/>
Qualitative study	<input type="checkbox"/>
Focus group(s)	<input type="checkbox"/>
Brief interview	<input type="checkbox"/>
Extended interview	<input type="checkbox"/>
Semi-structured interview	<input type="checkbox"/>
Document Analysis	<input type="checkbox"/>
Observation (Passive/Participant)	<input type="checkbox"/>
<i>Other (please state)</i>	<input type="checkbox"/>
<p>What was the research question?</p> <p>What were the vocational outcomes of the Papworth Early Rehabilitation Programme which aims to get people on incapacity benefits into employment, fit for and seeking work, involved in voluntary work or education, and/or able to live independently?</p> <p>Other study parameters:</p> <p>Setting:</p> <p>Geographical (City/country): Cambridgeshire.</p> <p>Social (school/workplace etc): Papworth rehabilitation centres</p> <p>Date of study (to/from): Utilised Programme records from 1995 to 2003. Follow-up in November 2004.</p> <p>Who funded the study?</p> <p> Not stated</p> <p>Participants:</p> <p> Number of participants:</p>	

107

Details on age, gender, and other characteristics (specifically disability, ethnicity, sexual orientation, religion or belief and socio-economic status) if presented:

87 male, 20 female

41 traumatic brain injury, 22 musculo-skeletal Injuries, 17 acquired brain injury, 15 back injuries, eight amputees and four other injuries

Were intervention groups balanced at baseline?:

Not applicable

Comments:

Individual

Sex: Not stated Age (range or mean): Not stated

Group: Not applicable

Organisation/Institution

Community/Environment

Policy/socio-political

Method of recruitment/enrolment and response rate:

All who started the programme between 1995 and December 2003

Method of allocation to intervention:

All participants allocated to intervention, no control group.

Selection criteria:

Inclusion:

All participants starting rehabilitation programme (107)

Exclusion:

Those who did not attend next recommended stage of acceptance process (132), those who were not recommended for acceptance (73), those who left programme before completion (13) and those who could not proceed as no

funding was available (20).

Intervention:

Description of the Intervention:

The Early Rehabilitation Programme run by the Papworth Trust, an 'employment, medical and life skills' rehabilitation programme for people with physical or cognitive disabilities. Delivered by team of a rehabilitation coordinator, case manager, job coach and assistant, vocational adviser, information technology assessor, and vocational psychologist. Help from a literacy tutor, occupational therapist and assistant, consultant in rehabilitation medicine, speech and language therapist and physiotherapist is bought in according to individual need.

Description of the comparator(s):

None

Method/mode of delivery (for example, peer education):

Job coaching, occupational therapy, medical rehabilitation.

Providers/deliverers of the intervention (including organisations involved):

The Papworth Trust

Length, duration and intensity of the intervention:

4-10 months, dependent upon the patient

Time to follow-up (average/median): Median 48 months

How many (n, %) participants completed the intervention?

94 of 107 (88%)

Details on age, gender, and other characteristics (specifically disability, ethnicity,

sexual orientation, religion or belief and socio-economic status) if presented:

For non-completers, were the reasons for non-completion described?

No.

Outcomes¹:

Primary outcomes:

Return to work (paid and unpaid)

Sustained return to work (paid and unpaid)

No impact on return to work

Were baseline measurements of outcomes assessed? Yes No

Describe outcome measures:

Employment status

Were baseline measurements of outcomes assessed? Not applicable

Yes No

Were the outcome measure(s) validated?

Yes No Not clear

If yes, how?

Secondary outcomes:

Other work related outcome

Acceptability of the intervention

Adverse or unintended outcomes

Barriers or facilitators of effective intervention

Individual improvement in personal aspects

Other - Describe:

Work readiness

¹ Adapted from Nutbeam's model (1998).

Describe outcome measures:

'Work ready' meant the individual had sufficient physical stamina, dexterity, basic cognitive skills (eg time-keeping) and inter-personal skills to be able to seek and sustain employment, with the help of schemes run by Disability Employment and Job Centres.

Were baseline measurements of outcomes assessed? Not stated

Yes No

Were the outcome measure(s) validated?

Yes No Not clear

If yes, how?

Analyses:

Data collection methods used:

Records and follow-up interviews

Describe methods used (intention to treat, descriptive statistics, qualitative analysis etc): Not applicable

Unit of analysis:

Individual Group Organisation/institution

Community/environment Policy/socio-political

Other (describe)

Power

Was a power calculation presented? Yes No

If yes, describe:

Was the study powered to detect an effect if one exists?

Yes

No

Not clear

Any other process details:

Results:

Briefly describe the results for each of the main outcomes (what size of effect is identified in the study? *List all measures of effects in the units used in the study – for example, absolute or relative risk, number needed to treat, include p values and any confidence intervals that are provided*). Also describe results according to individual or population characteristics including age, gender, and other characteristics specifically disability, ethnicity, sexual orientation, religion or belief and socio-economic status (if presented)?

Of the 94 completing the programme at follow up there were:

56% (53) employed
31% (33) work ready
4% (4) in education,
2% (2) in voluntary work.
2% (2) living independently

Percentage and numbers of those with condition returning to work:

traumatic brain injury 32% (13)
acquired brain injury 41% (7)
musculo-skeletal injuries 64% (14)
back injuries 80% (12)
amputation 62% (5)
Other 50% (2)

Are there any key criticisms of the conclusions drawn by the authors?

None

Does the paper address or offer any evidence of effect according to either of the following individual/population characteristics? If so, please ensure that evidence is presented in results above.

Older people	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not clear <input type="checkbox"/>
Gender	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not clear <input type="checkbox"/>
Ethnicity	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not clear <input type="checkbox"/>
Socio-economic status	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not clear <input type="checkbox"/>
People with disabilities	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Not clear <input type="checkbox"/>

Other (please specify):

Does the paper demonstrate any evidence of harms or adverse effects associated with the intervention?

None

Do the authors identify any strengths and/or weaknesses of the evidence presented?

Weaknesses identified:

Incomplete entries in original records

Inconsistent formal follow up at 6 months

Loss of some clients from long-term follow up.

Rate of non attendance thought to be high but no comparable figures from elsewhere

No information about the employment outcomes of those who contacted the Trust but did not take up a place on the rehabilitation programme

In your opinion, are the results generalisable to the UK?

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not clear <input type="checkbox"/>
Why: Participants are drawn from UK wide referrals.		
Do the authors identify any evidence gaps or make any recommendations for further research? Lack of a formal outcome measure of handicap or participation Patient drop out needs to be addressed		
Is there any data on cost-effectiveness presented? Yes No formal cost analysis but average cost of the programme is equivalent to four years incapacity benefit. Individual will become net contributory to Treasury rather than beneficiary, so cost of programme saved in shorter period.		
Are there policy implications of the work? Funding for clients was difficult to obtain from statutory services.		
Are there effective practice implications of the work? Yes, such initiatives have the potential to get employees off incapacity benefit and back to work.		

Methodology Checklist: Case studies (adapted from STROBE checklist, Version 3¹)

Study Identification <i>Include source (if published-full reference details, if not published-contact details of source).</i>	<i>The Papworth Early Rehabilitation Programme: Vocational outcomes</i> <i>Disability and Rehabilitation, April 2007, 29(8): 671-677</i>	
Guideline topic:LTSl	Key question no:Q4	
Checklist completed by:	CM	
INTRODUCTION		
Background/Rationale	Evaluation of programme of rehabilitation for incapacity benefit recipients	
Objectives	To evaluate the vocational outcomes of the programme	
METHODS		Bias present?
Study design	Case studies	No comparison group
Setting	Eastern England, Papworth rehabilitation centres Data originally gathered between 1995 and 2003, with a follow up in 2004	
Participants	Inclusion: All participants who started the programme between 1995 and 2003. Exclusion: Those who did not attend next recommended stage of acceptance process (132), those who were not recommended for acceptance (73), those who left programme before completion (13) and those who could not proceed as no funding was available (20).	No Comparison group

¹ <http://www.strobe-statement.org/>

<i>Variables of interest</i>	Outcomes: employment, work readiness	
<i>Measurement</i>	Results measured as either unemployed, returned to work, or ready to return to work.	No
	Although initial attendance was not for the study, the 2004 follow-up was carried out for the study. Study was carried out by four researchers, two of who work with the program being evaluated.	
	If applicable, describe comparability of assessment methods across groups.	N/A
<i>Bias</i>	Are identified sources of bias random or are they in one direction? Describe any measures taken to address potential sources of bias.	N/A
<i>Sample size</i>	All participants who started the programme between 1995 and 2003 (94).	
<i>Statistical methods</i>	(a) Describe all statistical methods including those to control for confounding.	N/A
	Describe how loss to follow-up and missing data were addressed.	They were not.
	Describe how any matching of cases and controls and missing data were addressed.	Not addressed
	If applicable, describe methods for subgroup analyses and sensitivity analyses.	Divided by disability, length of unemployment
<i>Quantitative variables</i>	Explain how quantitative variables are analyzed eg. which groupings are chosen, and why.	Grouped according to disability and employment status
	Present results from continuous analyses as well as from grouped analyses, if appropriate.	N/A
<i>Funding</i>	Give source of funding and role of funder(s) for the study and, if applicable, the original study on which the present article is based.	Not known
RESULTS		
<i>Participants</i>	Report the numbers of individuals at	340 potentially

	each stage of the study (separately for cases and controls) (eg. numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow up, and analysed).	eligible, 107 started programme, 94 completed programme, and were followed up.
	Give reasons for non-participation at each stage.	None given.
<i>Descriptive data</i>	87 male, 20 female. 58 brain injuries, 22 Musculo-skeletal, 15 Back injuries.	Confounding bias present?
	Data on participant's employment status appears complete	
	Follow up for all participants occurred in 2004.	
<i>Outcome data</i>	53 employed, 2 in voluntary work, 33 ready for work and 4 were in education.	
OVERALL ASSESSMENT	<p><i>++ Where all or most of the data is adequately described and where the conclusions of the study are thought very unlikely to alter (low risk of bias).</i></p> <p><i>+ Where some of the data is adequately described and where the conclusions of the study are thought unlikely to alter (risk of bias).</i></p> <p><i>- Where few or no of the data is adequately described and where the conclusions of the study are thought likely or very likely to alter (high risk of bias).</i></p>	-

Appendix 7: Economic Data Extraction and Quality Assessment Form

Q4 Data extraction and quality assessment for economic evaluations

Name of study

Authors

Journal details including year

Country/countries

Cross reference to data extraction for effectiveness evaluation (where applicable)

Sample sizes of original studies (if applicable and if not cross referenced in 0.4 above)

1. Was a full economic evaluation undertaken? Did it include a comparative assessment of costs and health outcomes?

2. Describe the interventions, comparators, population, outcomes, perspective and time horizon included in the economic evaluation.

3. What form of economic evaluation was undertaken?

Cost-effectiveness analysis

Cost-utility analysis

Cost-benefit analysis

Cost consequences analysis.

4. What type of modelling approach was used (cohort versus individual-patient level, dynamic versus static)? Is this appropriate to address the decision problem? What modelling methodology was used (within-trial evaluation, decision tree, markov, discrete event simulation, other)? Is this appropriate to address the decision problem?

5. Describe the key structural assumptions employed in the evaluation. Do these appear reasonable? What is the likely impact of these assumptions on the results of the evaluation?

6. Describe the assumptions surrounding the effectiveness data and the sources employed in the model. Were all relevant health outcomes included in the model? How were benefits measured and valued? What are the strengths and weaknesses of these data?

Quality of life measure used

Quality of life for intervention

Quality of life for comparator

Number of QALYs gained for intervention

Number of QALYs gained for comparator

7. Describe the assumptions surrounding the resource use and cost data employed in the model. Were all relevant costs included in the model? How were these measured and valued? What are the strengths and weaknesses of these data?

Year to which prices refer

Total costs for intervention in original prices and UK 2007 prices

Total costs for comparator in original prices and UK 2007 prices

8. Was discounting applied to costs and health outcomes to account for time preferences?

9. What were the results of the economic model? Were results presented incrementally? Are the base case results calculated using deterministic parameter values or the expected values?

10. Was a comprehensive uncertainty analysis undertaken? What methods were used to evaluate uncertainty (one-way, multi-way, probabilistic). How were the results of the uncertainty analysis presented (cost-effectiveness planes, cost-effectiveness acceptability curves)?

10.1 Key results of the sensitivity analyses

11. Does the study report details of any model validation (concurrence of experts, internal/external consistency, predictive validity)?

12. What are the author conclusions? Does the study discuss the generaliseability of the results of the evaluation? Is it applicable to the UK setting?