

Protocol: Overview of systematic reviews on support for gaining employment with a long-term health condition (2019)

Review title

The effectiveness of vocational interventions to help adults with long-term health conditions and/or disability gain and maintain paid work: an overview of systematic reviews

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Background

People who experience health conditions and/or disability often also have difficulty accessing employment due to a number of complex factors. These factors are very often associated with broader societal issues. They include stigma, poorly-informed judgements about what makes somebody 'work-able', fear of negatively affecting health and safety in the workplace and/or making the workplace vulnerable to higher costs, and challenges in negotiating work arrangements that are outside the norm when needed (Fadyl & Payne, 2016; Harlan & Robert, 1998; Louvet, 2007; Pacheco, Page, & Webber, 2014; Schur, Kruse, Blasi, & Blanck, 2009). Case management, vocational rehabilitation and employment support can all help to address these challenges and improve work outcomes for people experiencing health conditions and/or disability, and various approaches exist within these broad categories that have been tested in research (e.g. Fadyl, McPherson, & Nicholls, 2015; Fleming, Del Valle, Kim, & Leahy, 2013; Trexler, Trexler, Malec, Klyce, & Parrott, 2010). Some aspects of what is effective and relevant will be the same across conditions. However, particular conditions, cultural contexts or circumstances can affect what is most relevant to address for an individual (Brannelly, Boulton, & te Hiini, 2013; Corrigan, 2004; Leutz, 1999). Furthermore, the type of condition and the relationship between this and the job goal can affect what the primary barriers to work may be (Andersen, Nielsen, & Brinkmann, 2012; Yorkston et al., 2003). Because of this, service providers need to be aware of the specific and unique issues that might affect individuals depending on their circumstances, and service design.

There already exists a number of systematic reviews of research investigating the effectiveness of strategies to support people with long-term health conditions and/or disability gain and sustain paid work (e.g. Hedley et al., 2017; Lindsay, R. Hartman, & Fellin, 2016; Mani, Cater, & Hudlikar, 2017; Modini et al., 2016; Smith, Atmatzidis, Capogreco, Lloyd-Randolfi, & Seman, 2017). What is not known is the quantity, quality and spread of these systematic reviews. Also unknown are the

similarities and difference in the conclusions that these reviews reach, and what might be possible to learn by examining evidence across these different reviews.

Review question

The objective of this overview is to synthesise systematic reviews of vocational interventions designed to help people with long-term health conditions and/or disability gain and sustain paid work. Our overview questions are as follows:

1. What is the effectiveness of vocational interventions to help adults with long-term health conditions and/or disability gain and maintain paid work, in what contexts?
2. What is the quality of evidence on vocational interventions to help adults with long-term health conditions and/or disability gain and maintain paid work?
3. What evidence gaps exist in current systematic reviews on vocational interventions to help people with long-term health conditions and/or disability gain and maintain paid work?

Condition or domain being studied

For the purpose of this review we will consider someone with a long-term health condition to be a person living with the effects of an injury, illness or health condition that is to continue for the foreseeable future. Disability is an umbrella term for impairments, activity limitations, or participation restrictions that arise as “an interaction between health conditions (diseases, disorders, injuries, traumas, etc.) and contextual factors... both personal and environmental” (World Health Organization, 2001, p. 8). Broad categories of long-term conditions considered in scope for this overview include: musculoskeletal, neurological, cardiac, respiratory, congenital & paediatric, sensory, endocrine & metabolic, skin and subcutaneous, or mental health conditions.

Participants/population

We will include any systematic review about adults (16 years or older) with a long-term health condition and/or disability, as defined above, who are not in paid work or who have only recently begun paid work (e.g. within three months of a new job placement).

Interventions

We will include any systematic review on vocational interventions to assist people with chronic health conditions and/or disability, who are not in work, gain and sustain paid work. For the purposes of this review vocational interventions will include the following:

- Training or education to prepare people to apply for employment (e.g. preparation of resumes; development of work skills; job-specific skills training and licencing (e.g. drivers licence), training in employment interview techniques; motivational and behavioural interventions to help people increase their self-efficacy for employment and engage in work)
- Vocational counselling to help people identify their work skills and aptitudes, seek work, or find and apply for jobs
- Provision of support for people to apply for jobs or to actively seek employment in other ways (including peer support programmes).
- Identification of barriers to employment (e.g. workplace, transport, or attitudinal barriers) and implementation of supports and/or strategies to reduce or remove those barriers (e.g. job accommodation, workplace modification – including access, provision of equipment,

- employer education, supporting workplace relationships and other psychosocial interventions, negotiating health and safety requirements, providing adapted transport)
- Job development (e.g. working with employers to create non-standard or modified positions)
 - Job placement schemes
 - Provision of support for people newly in employment
 - Job coaching (short or long-term) to develop skills and strategies to manage a job
 - Provision of financial and related supports to move into employment (e.g. appropriate clothing, equipment, transportation, transitional loans, etc).
 - Community development specifically focused on creating employment opportunities for people living with long-term conditions and/or disabilities (e.g. development of business initiatives that need employees with lived experience of disability, employer awareness, incentive programmes, social enterprises focused on work for this population).
 - Community and family support initiatives focused on enabling participation in paid work.
 - Work-readiness training or transitional employment where the focus is on transitioning into paid employment or providing skills for people to immediately enter paid employment at the completion of the training.

We will exclude work-readiness training where the training is not expected to enable participation in paid employment immediately following the training. We will exclude sheltered workshops where the expectation is that participants will earn less than minimum wage and retain social welfare benefits for the foreseeable future. We will also exclude general primary, secondary, or tertiary education that has not been designed specifically for people with long-term health conditions and/or disability. We will exclude stay-at-work interventions for people who are currently employed and needing to maintain that employment in the context of a newly acquired health condition or disability. We will exclude reviews that primarily focus on helping people to gain or maintain occupational roles and activities that are unpaid and unlikely to provide a livelihood.

Comparator(s)/control

We will include any systematic reviews that collates or synthesises evidence from studies which include a no intervention control, an attention control (i.e. a Hawthorne control), or a comparison to 'usual care' as defined by the study authors. We will also include any systematic reviews that include studies compare two different approaches to vocational rehabilitation.

Types of studies to be included

We will include any systematic reviews of controlled trials including parallel design randomised controlled trials (RCTs), cluster RCTs, pseudo-randomised controlled trials, and non-randomised controlled trials. We will exclude reviews that do not report an explicit review objective or question, search strategy, inclusion criteria, quality assessment methods and data extraction plan.

Context

For the purposes of this overview, we will consider reviews of any vocational intervention regardless of where the intervention is delivered, provided the aim of the intervention is to help adults with long-term health conditions and/or disability gain and maintain paid work.

Main outcomes

The main outcomes for this overview will be:

- Commencement of either full- or part-time paid employment as defined in the *Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, adopted by the Thirteenth International Conference of Labour Statisticians (1982)*.
- Moving into legal occupation that generates a livelihood (e.g. indigenous practices that generate resources to live on but are not paid employment).
- Successful maintenance of new employment

Although measurement of work-ability is of interest, especially in contexts where there may be limited employment opportunities, we do not consider the measures in this area to be sufficiently developed for unemployed populations to justify inclusion as a main outcome separate from employment.

Timing and effect measures (for main outcomes)

We will collect data on rates of work placement in any type of paid employment, and whether these placements are full-time or part-time; casual, fixed term or permanent. For the purposes of this overview, we will consider part-time employment to be working less than 30 hours. We will collect data on maintenance of new employment using count data (e.g. number of people maintaining employment at 6 months) and continuous data (e.g. duration of time employment has been maintained at by the end of a study) as reported by the review authors. We will consider employment to be successfully maintained if paid employment has been continuously sustained over a period of time regardless of whether or not that employment was in the same job. We will consider any gap greater than 4 weeks between jobs to be non-continuous employment. Where the type of work itself requires alternative measures of maintenance (e.g. for indigenous practices or seasonal workers), we will report on the measures given by study authors.

We will consider outcomes at three time points: the end of intervention (as reported by study authors); up to six months after the end of an intervention; more than six months after end of an intervention.

Additional outcomes

Secondary outcomes for this review will be:

- Proportion of full time employment
- Satisfaction of employers with employment outcomes or work performance
- Satisfaction and/or perceived 'success' of participants with employment outcomes
- Pay rates
- Cost of vocational interventions
- Cost of ongoing work support
- Quality of life
- Happiness
- Cost-benefit analyses
- Community participation
- Financial autonomy for person with long-term condition

- Self-esteem
- Self-efficacy

We will also report on negative outcomes if they are reported by study authors:

- Deterioration in health status
- Tensions between employment expectations and requirements for rehabilitation, treatment or health care needs (e.g. time to go to specialist appointments etc).

Timing and effect measures

We will report proportion of full time employment in terms of number of hours employed as a proportion of a standard working week as reported by the review authors. We will also report absolute hours worked each week by participants. We will report employer and participant satisfaction with employment, and employer satisfaction with work performance, on the basis of scores on standardised job satisfaction surveys. We will report costs and pay rates in the currency reported in systematic reviews, noting the year that review authors reported these figures. We will report on standardised measures of quality of life such as the Euroqual or Short Form-36. We will consider outcomes at three time points: the end of intervention (as reported by study authors); up to one year after the end of an intervention; more than one year after end of an intervention.

Data extraction (selection and coding)

Search methods for identification of reviews

We will identify relevant reviews by searching

- The Cochrane Database of Systematic Reviews (Wiley)
- MEDLINE (OvidSP)
- EMBASE (OvidSP)
- PsychINFO (OvidSP)
- AMED (OvidSP)
- CINAHL (EBSCOhost)
- Proquest Dissertations and Theses database.
- Evidence Search (NICE)
- Business Source Complete (EBSCO)
- ERIC (Ovid)

Search strategies for these databases are presented in Appendix 1-9. We will search all databases from their inception to the date of the search. We will include only studies reported in English. We will search Cochrane Database of Systematic Reviews (Wiley), Campbell Collaboration Database and Prospero to identify any ongoing or recently completed reviews. We will contact the authors of included reviews for advice as to other relevant reviews. We will seek full review reports of any potentially eligible reviews that are published as abstracts or conference proceedings only.

Selection of reviews

Two overview authors will independently consider the title and abstracts from the identified reviews and apply the inclusion criteria described above. Disagreement will be resolved through consideration and discussion of full review reports, involving a third overview author where necessary.

We will contact review authors of completed reviews that meet our selection criteria for which the search data was more than 12 months ago and ask if an update is anticipated within three months of our initial search data. We will access to relevant pre-publication data where possible.

Data extraction

Two overview authors will independently extract data. Disagreements will be resolved by discussion, with assistance from a third overview author where necessary. We will use an electronic, online data collection form specifically designed and piloted by the overview author team. We will extract data on review methodology and characteristics, and data on review findings. For review methodological and content characteristics, we will extract data on:

- Full citation
- Year published
- Corresponding author
- Country (or countries) of affiliation with the authors of the review
- Methodological characteristics:
 - Date of the last search
 - Existence of a pre-published protocol (yes/no)
 - Whether the review is a Cochrane review (yes/no)
 - Review aim
- Content characteristics:
 - Types of studies included in the review
 - PICO components of the review, as defined by the review authors
 - Population
 - Intervention(s)
 - Comparison(s)
 - Outcomes – primary and secondary
 - Setting of the rehabilitation interventions researched (e.g. home, community service, workplace)
 - Number of studies included in the review
 - Type and number of analyses conducted
 - Method used by the review authors for grading the evidence (e.g. GRADE, PEDro, etc)
- Review authors' comments on methodological issues
 - Review limitation as stated by authors
 - Review authors' conclusions regarding the effectiveness of the interventions under consideration
 - Review authors' recommendations for future research

For review findings we will extract data on:

- Information on specific outcomes relevant to the objectives of our review
- Number of studies and participants behind each outcome presented
- Intervention effects for the outcomes presented by the review authors
- risk ratios (RRs), odds ratios (ORs), or mean differences (MDs), or standardised mean differences (SMDs); 95% confidence intervals (CIs)
 - I^2 statistic for heterogeneity

- Narrative text of results if no statistical results presented.
- Population behind the outcome – age, severity, time post-diagnosis – as stated by the review authors
- Intervention behind the outcome as stated by the review authors, using the TIDieR Checklist (Hoffmann et al., 2014)
 - Comparison for the intervention with the outcome as stated by the review authors
 - Reason for evidence being downgraded or upgraded for the outcomes presented as stated by the review authors
- Risk of bias assessments as assessed by original review authors (needed for grade assessment)
 - Randomization (selection bias)
 - Blinding (performance bias and detection bias)

Using a spreadsheet, we will systematically synthesise the studies included within all identified reviews to explore whether any reviews cover the same studies. When overlap between reviews are identified, two overview authors will discuss the overlap with consideration of each review question and comparisons explored, the date of the last search and key aspects of methodological quality (e.g. types of studies included, risk of bias assessment). We will use these details to reach an agreement regarding which data from which review comparisons should be included within the overview.

Risk of bias (quality) assessment

Quality of included reviews

Two overview authors will independently assess the quality of reporting of review with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) tool (Moher, Liberati, Tetzlaff, Altman, & The PRIMSA Group, 2009). We will apply PRISMA in accordance with the updated version of PRISMA Explanation and Elaboration document (Liberati et al., 2009; Page et al., 2018) by making a judgement of “yes/no/unclear” without further descriptions. Disagreement will be resolved through consideration and discussion of full review reports, involving a third overview author where necessary. We will present the results of our PRISMA assessments in a dedicated table.

Two overview authors will also independently assess the methodological quality of the included reviews using the AMSTAR-2 tool (Shea et al., 2017). We will make a judgement on an overall confidence rating in the quality of each review, based on an evaluation of the impact of seven critical items from the AMSTAR-2 tool (Shea et al., 2017). We will not reassess the quality of studies included within reviews but instead will report study quality according to review authors’ assessments. We will report overall confidence ratings as either: a) high confidence, b) moderate confidence, or c) low to critically low confidence. Again, disagreement will be resolved through consideration and discussion of full review reports, involving a third overview author where necessary, and will present results of our methodological quality assessment in a dedicated table. The Table below present all 16 items from the AMSTAR-2 tool, and highlights the seven critical items.

Table 1: The sixteen domains in AMSTAR-2 (Shea et al., 2017)

No.	AMSTAR 2 question	Critical item
1	Did the research questions and inclusion criteria for the review include the components of PICO?	

2	Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?	✓
3	Did the review authors explain their selection of the study designs for inclusion in the review?	
4	Did the review authors use a comprehensive literature search strategy?	✓
5	Did the review authors perform study selection in duplicate?	
6	Did the review authors perform data extraction in duplicate?	
7	Did the review authors provide a list of excluded studies and justify the exclusions?	✓
8	Did the review authors describe the included studies in adequate detail?	
9	Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?	✓
10	Did the review authors report on the sources of funding for the studies included in the review?	
11	If meta-analysis was performed, did the review authors use appropriate methods for statistical combination of results?	✓
12	If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?	
13	Did the review authors account for RoB in primary studies when interpreting/discussing the results of the review?	✓
14	Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?	
15	If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?	✓
16	Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?	

Grading of quality of evidence in included reviews

We will score the quality of the evidence for all quantitatively reported intervention effects extracted for this overview. We will score quality of evidence using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) approach (Guyatt et al., 2008), which considers (a) risk of bias due to flawed design or conduct of studies; (b) imprecision (i.e. the breadth of confidence intervals around reported effect sizes); (c) inconsistency (i.e. variability around point estimates; statistical heterogeneity); (d) indirectness (e.g. variability in participants, interventions, comparisons and outcomes); (f) publication bias (explored via funnel plots and gaps between reported protocols and published results). To improve objectivity with GRADE scores, we will use objective criteria for grading evidence adapted from that used by Pollock et al. (2014) (see Table 2)

Table 2: GRADE levels of evidence – objective criteria. Adapted from Pollock et al, 2014

Sample size pooled in analysis	Risk of bias (ROB)	Heterogeneity	AMSTAR 2	Downgrading recommendation
>= 200	>= 75% of participants have	$I^2 \leq 75\%$	High confidence	No downgrade

	low ROB for (1) randomisation and (2) observer blinding			
100-199	< 75% of participants have low ROB for (1) randomisation and (2) observer blinding	$I^2 > 75\%$	Moderate confidence	Downgrade 1 level
1-99			Low and critically low confidence	Downgrade 2 levels

Two overview authors will determine whether the evidence arising from each comparison is of high, moderate, low or very low quality within GRADE, based on the following definitions (Guyatt 2008):

- High quality: when further research is very unlikely to change our confidence in the estimate of effect.
- Moderate quality: when further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.
- Low quality: when further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.
- Very low quality: when we are very uncertain about the estimate.

The overview authors resolve the disagreements through discussion, and will involve the third author when necessary.

Data synthesis

We will report findings from the review descriptively. We will not re-analyse data from primary studies. We will provide a report on the characteristics of all included reviews using simple statistical analysis and narrative accounts. We will report on publication trends, the range of review topics (i.e. types of populations, types of interventions, and their contexts), the range of outcomes reported, and the quality of included reviews. We will synthesise information on common problems with quality of reporting, quality of methodology, and quality of evidence.

We will present a main summary of intervention effectiveness according to a framework adapted from Shepherd et al. (2018) and Farquhar and Marjoribanks (2018). Specifically, we will report on

- Effective interventions: indicating that the review found evidence of effectiveness for an intervention.
- Promising interventions (more evidence needed): indicating that the review found some evidence of effectiveness for an intervention, but that more evidence is needed.
- Ineffective interventions: indicating that the review found evidence of lack of effectiveness for an intervention.
- Probably ineffective interventions (more evidence needed): indicating that the review found evidence suggesting lack of effectiveness for an intervention, but that more evidence is needed.

- No conclusions possible: indicating that the review found insufficient evidence for review authors to comment on the effectiveness of an intervention.

We will base our categorisation on our GRADE assessments for quality of evidence. High quality evidence will be needed to classify an intervention as “effective” or “ineffective”, moderate quality evidence will be needed to classify an intervention as “promising” or “probably ineffective”, and low to very low quality evidence will be needed to report that “no conclusion are possible”. The overview authors will discuss the categorisation of the effectiveness of intervention, resolving any disagreements by discussion, until a consensus is reached. We will examine the spread of evidence across the overview to identify any large evidence gaps that exist for particular populations or people, types of interventions, or types of outcomes relevant to this review.

Subgroup analysis

As we are not going to re-analyse data from primary studies, we will not be undertaking statistical subgroup analysis for individual meta-analyses. However, where there are sufficient numbers of reviews, we will consider subgroups analysis of interventions on the basis of the following type of health conditions:

- Mental health conditions
- Primarily physical disabilities, where the condition is associated with a physical impairment at the level of body structure and function – e.g. amputation, spinal cord injury
- Progressive neurological conditions – e.g. multiple sclerosis; Parkinson’s disease; motor neuron disease

Dissemination plans

Prior to dissemination, we will discuss the overviews findings with four stakeholder reference groups (one indigenous focused group, and three condition-focused groups: mental health, amputees and multiple sclerosis). We will incorporate the feedback from these stakeholder groups into the discussion of our findings, and reinterpret findings if the stakeholder groups identify major errors with how we have extracted, collated or synthesised the data from the included reviews. We will publish a report on the overview findings in an open-access peer-reviewed journal, and make the raw data from the overview available in an open-access online repository (AUT’s ‘Tuwhera’ database). We aim to present the reviews finding at national and/or international research meetings on rehabilitation and work.

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Appendix 1. Cochrane Database of Systematic Reviews (Wiley) search strategy

1. Rehabilitation, Vocational
2. Occupational adj (counsel* or training or intervention* or rehabilitation)
3. Ocational adj (counsel* or training or intervention* or rehabilitation)
4. Work adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)
5. Job adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)

Appendix 2. MEDLINE (OvidSP) search strategy

1. exp Chronic Disease/
2. exp Disabled Persons/
3. (disable* or disabil* or impairment or handicap).mp.

4. ((persistent or long* term or ongoing or degenerative or chronic or progressive) adj3 (disease* or ill* or condition* or insufficienc* or disorder* or impair*)).tw.

5. exp cardiovascular diseases/

6. (heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure).tw.

7. sickle cell.mp.

8. exp lung diseases obstructive/

9. (obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis).tw.

10. exp emphysema/

11. exp pulmonary emphysema/

12. emphysema.tw.

13. (cystic fibrosis or respiratory distress).mp.

14. exp nervous system diseases/

15. (brain adj (disease* or damage* or injur*)).tw.

16. (cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*).tw.

17. (neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome).tw.

18. (paralys* or quadriplegi* or tetraplegi* or paraplegi*).tw.

19. ((communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) adj disorder*).tw.

20. (hearing loss or hearing aid* or deaf* or blind* or stutter* or amput*).tw.

21. down* syndrome.tw.
22. cerebral palsy.tw.
23. exp gastrointestinal diseases/
24. (gastroenter* or intestinal or bowel or colonic).tw.
25. renal insufficiency/
26. ((renal or kidney) adj (failure* or insufficienc*)).tw.
27. diabetes mellitus/
28. (diabetes or diabetic*).tw.
29. exp nutrition disorders/
30. (underweight or malnutrition or malnourished or overweight or obes*).tw.
31. exp arthritis/
32. exp rheumatic diseases/
33. (arthritis or osteoarthritis or rheumati* or fibromyalgia).tw.
34. ((back or neck) adj pain).tw.
35. exp thyroid diseases/
36. thyroid.tw.
37. exp hypersensitivity/
38. (hypersensitivit* or allerg* or intolerance or anaphyla*).mp.
39. exp neoplasms/
40. (cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia).tw.
41. exp hiv infections/
42. (hiv infect* or hiv disease*).tw.

43. exp mental disorders/

44. exp behavioral symptoms/

45. ((mental* or psychiatr* or psychological*) adj (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)).tw.

46. ((personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) adj disorder*).tw.

47. (psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd).tw.

48. (((substance or drug or alcohol) adj abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* adj1 drinking)).tw.

49. or/1-48

52. exp Rehabilitation, Vocational/

53. (occupational adj (counsel* or training or intervention* or rehabilitation)).tw.

54. (vocational adj (counsel* or training or intervention* or rehabilitation)).tw.

55. (work adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)).tw.

56. (job adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)).tw.

57. or/52-54

58. systematic review.mp.

59. exp Meta-analysis/

60. (metaanalysis or meta-analysis).mp.

61. or/58-60

62. 49 and 55 and 59

Appendix 3. EMBASE (OvidSP) search strategy

1. exp chronic disease/
2. exp disabled person/
3. (disable* or disabil* or impairment or handicap).mp.
4. ((persistent or long* term or ongoing or degenerative or chronic or progressive) adj3 (disease* or ill* or condition* or insufficienc* or disorder* or impair*)).tw.
5. exp cerebrovascular accident/
6. (heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure).tw.
7. sickle cell.mp.
8. exp lung diseases obstructive/
9. (obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis).tw.
10. exp emphysema/
11. exp pulmonary emphysema/
12. emphysema.tw.
13. (cystic fibrosis or respiratory distress).mp.
14. exp nervous system diseases/
15. (brain adj (disease* or damage* or injur*)).tw.
16. (cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*).tw.
17. (neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or

supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome).tw.

18. (paralys* or quadriplegi* or tetraplegi* or paraplegi*).tw.

19. ((communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) adj disorder*).tw.

20. (hearing loss or hearing aid* or deaf* or blind* or stutter* or amputation*).tw.

21. down* syndrome.tw.

22. cerebral palsy.tw.

23. exp gastrointestinal diseases/

24. exp heart disease/

25. (gastroenter* or intestinal or bowel or colonic).tw.

26. exp kidney failure/

27. ((renal or kidney) adj (failure* or insufficienc*).tw.

28. exp diabetes mellitus/

29. (diabetes or diabetic*).tw.

30. exp nutrition disorders/

31. (underweight or malnutrition or malnourished or overweight or obes*).tw.

32. exp arthritis/

33. exp rheumatic diseases/

34. (arthritis or osteoarthritis or rheumati* or fibromyalgia).tw.

35. ((back or neck) adj pain).tw.

36. exp thyroid diseases/

37. thyroid.tw.

38. exp hypersensitivity/

39. (hypersensitivit* or allerg* or intolerance or anaphyla*).mp.
40. exp neoplasms/
41. (cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia).tw.
42. exp hiv infections/
43. (hiv infect* or hiv disease*).tw.
44. exp mental disease/
45. ((mental* or psychiatr* or psychological*) adj (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)).tw.
46. ((personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) adj disorder*).tw.
47. (psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd).tw.
48. (((substance or drug or alcohol) adj abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* adj1 drinking)).tw.
49. or/1-48
50. (occupational adj (medicine or counsel?ing or training or intervention* or rehabilitation)).tw.
51. (vocational adj (medicine or counsel?ing or training or intervention* or rehabilitation)).tw.
52. (work adj1 (training or counsel?ing or intervention* or accommodation or adjustment or activities or ability or disabil* or retention or maintenance or rehabilitation)).tw.
53. (job adj1 (training or counsel?ing or intervention* or accommodation or adjustment or activities or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)).tw.
54. or/50-53
55. 49 and 54

56. exp vocational rehabilitation/
57. 55 or 56
58. systematic review.mp.
59. exp Meta-Analysis/
60. (metaanalysis or meta-analysis).mp.
61. or/58-60
62. 57 and 61

Appendix 4. PsychINFO (OvidSP) search strategy

1. Chronic Disease
2. Disabled Persons
3. (disable* or disabil* or impairment or handicap).mp.
4. ((persistent or long* term or ongoing or degenerative or chronic or progressive) adj3 (disease* or ill* or condition* or insufficienc* or disorder* or impair*)).tw.
5. cardiovascular diseases
6. (heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure).tw.
7. sickle cell.mp.
8. lung diseases obstructive
9. (obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis).tw.
10. Emphysema
11. pulmonary emphysema
12. emphysema.tw.
13. (cystic fibrosis or respiratory distress).mp.

14. nervous system diseases
15. (brain adj (disease* or damage* or injur*)).tw.
16. (cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*).tw.
17. (neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome).tw.
18. (paralys* or quadriplegi* or tetraplegi* or paraplegi*).tw.
19. ((communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) adj disorder*).tw.
20. (hearing loss or hearing aid* or deaf* or blind* or stutter* or amput*).tw.
21. down* syndrome.tw.
22. cerebral palsy.tw.
23. gastrointestinal diseases
24. (gatroenter* or intestinal or bowel or colonic).tw.
25. renal insufficiency
26. ((renal or kidney) adj (failure* or insufficienc*)).tw.
27. diabetes mellitus
28. (diabetes or diabetic*).tw.
29. nutrition disorders
30. (underweight or malnutrition or malnourished or overweight or obes*).tw.
31. Arthritis
32. rheumatic diseases
33. (arthritis or osteoarthritis or rheumati* or fibromyalgia).tw.

34. ((back or neck) adj pain).tw.
35. thyroid diseases
36. thyroid.tw.
37. hypersensitivity
38. (hypersensitivit* or allerg* or intolerance or anaphyla*).mp.
39. Neoplasms
40. (cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia).tw.
41. hiv infections
42. (hiv infect* or hiv disease*).tw.
43. mental disorders
44. behavioral symptoms
45. ((mental* or psychiatr* or psychological*) adj (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)).tw.
46. ((personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) adj disorder*).tw.
47. (psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd).tw.
48. (((substance or drug or alcohol) adj abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* adj1 drinking)).tw.
49. or/1-48
50. Rehabilitation, Vocational
51. (occupational adj (counsel* or training or intervention* or rehabilitation)).tw.
52. (vocational adj (counsel* or training or intervention* or rehabilitation)).tw.

53. (work adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)).tw.
54. (job adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)).tw.
55. or/50-54
56. systematic review.mp.
57. Meta-analysis
58. (metaanalysis or meta-analysis).mp.
59. or/56-58
60. 49 and 55 and 59

Appendix 5. AMED (OvidSP) search strategy

1. exp Chronic Disease/
2. Disabled Persons
3. (disable* or disabil* or impairment or handicap).mp.
4. ((persistent or long* term or ongoing or degenerative or chronic or progressive) adj3 (disease* or ill* or condition* or insufficienc* or disorder* or impair*)).tw.
5. cardiovascular diseases
6. (heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure).tw.
7. sickle cell.mp.
8. exp lung diseases obstructive/
9. (obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis).tw.
10. exp emphysema/
11. exp pulmonary emphysema/
12. emphysema.tw.

13. (cystic fibrosis or respiratory distress).mp.
14. nervous system diseases
15. (brain adj (disease* or damage* or injur*)).tw.
16. (cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*).tw.
17. (neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome).tw.
18. (paralys* or quadriplegi* or tetraplegi* or paraplegi*).tw.
19. ((communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) adj disorder*).tw.
20. (hearing loss or hearing aid* or deaf* or blind* or stutter* or amput*).tw.
21. down* syndrome.tw.
22. cerebral palsy.tw.
23. gastrointestinal diseases
24. (gatroenter* or intestinal or bowel or colonic).tw.
25. renal insufficiency
26. ((renal or kidney) adj (failure* or insufficienc*)).tw.
27. diabetes mellitus/
28. (diabetes or diabetic*).tw.
29. exp nutrition disorders/
30. (underweight or malnutrition or malnourished or overweight or obes*).tw.
31. exp arthritis/
32. rheumatic diseases

33. (arthritis or osteoarthritis or rheumati* or fibromyalgia).tw.
34. ((back or neck) adj pain).tw.
35. thyroid diseases
36. thyroid.tw.
37. exp hypersensitivity/
38. (hypersensitivit* or allerg* or intolerance or anaphyla*).mp.
39. exp neoplasms/
40. (cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia).tw.
41. exp hiv infections/
42. (hiv infect* or hiv disease*).tw.
43. exp mental disorders/
44. behavioral symptoms
45. ((mental* or psychiatr* or psychological*) adj (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)).tw.
46. ((personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) adj disorder*).tw.
47. (psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd).tw.
48. (((substance or drug or alcohol) adj abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* adj1 drinking)).tw.
49. or/1-48
50. exp Rehabilitation, Vocational/
51. (occupational adj (counsel* or training or intervention* or rehabilitation)).tw.

52. (vocational adj (counsel* or training or intervention* or rehabilitation)).tw.
53. (work adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)).tw.
54. (job adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)).tw.
55. or/50-54
56. systematic review.mp.
57. exp Meta-analysis/
58. (metaanalysis or meta-analysis).mp.
59. or/56-58
60. 49 and 55 and 59

Appendix 6. CINAHL (EBSCOhost) search strategy

1. (MH "Employment+")
2. (MH "Work+")
3. (MH "Rehabilitation, Vocational+")
4. S1 OR S2 OR S3
5. (MH "Chronic Disease+")
6. (MH "Disabled+")
7. TX disable* or disabil* or impairment or handicap
8. TX ((persistent or long* term or ongoing or degenerative or chronic or progressive) N1 (disease* or ill* or condition* or insufficienc* or disorder* or impair*))
9. (MH "Cardiovascular Diseases+")
10. TX heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure
11. TX sickle cell
12. (MH "Lung Diseases, Obstructive+")

13. TX obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis
14. TX cystic fibrosis or respiratory distress
15. (MH "Nervous System Diseases+")
16. TX brain N1 (disease* or damage* or injur* or tumour or tumor)
17. TX cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*
18. TX neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome
19. TX paraly* or quadriplegi* or tetraplegi* or paraplegi*
20. TX communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) N1 disorder*
21. TX hearing loss or hearing aid* or deaf* or blind* or stutter* or amputation*
22. TX down* syndrome
23. TX cerebral palsy
24. (MH "Gastrointestinal Diseases+")
25. TX gatroenter* or intestinal or bowel or colonic
26. (MH "Renal Insufficiency+")
27. TX (renal or kidney) N1 (failure* or insufficienc*)
28. (MH "Diabetes Mellitus+")
29. TX diabetes or diabetic*
30. (MH "Nutrition Disorders+")
31. TX underweight or malnutrition or malnourished or overweight or obes*
32. (MH "Arthritis+")

33. (MH "Rheumatic Diseases+")
34. TX arthritis or osteoarthritis or rheumati* or fibromyalgia
35. TX (back or neck) N1 pain
36. (MH "Thyroid Diseases+")
37. TX thyroid
38. (MH "Hypersensitivity+")
39. TX hypersensitivit* or allerg* or intolerance or anaphyla*
40. (MH "Neoplasms+")
41. TX cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia
42. (MH "Human Immunodeficiency Virus+")
43. TX hiv infect* or hiv disease*
44. (MH "Mental Disorders+")
45. (MH "Behavioral Symptoms+")
46. TX (mental* or psychiatr* or psychological*) N1 (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)
47. TX (personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) N1 disorder*
48. TX psychos* or psychotic* or paranoi* or schizo* or neuros* or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd
49. TX ((substance or drug or alcohol) N1 abuse) or substance use or illegal drug use or addict* or alcoholism or (problem* N1 drinking)
50. (MH "Occupational Health+")
51. (MH "Stress, Occupational+")

52. TX occupational N1 (medicine or health or status or counseling or training or intervention* or rehabilitation)
53. TX vocational N1 (medicine or health or status or counseling or training or intervention* or rehabilitation)
54. TX work N1 (status or training or counseling or intervention* or accommodation or adjustment or activities or ability or disabil* or retention or maintenance or rehabilitation)
55. S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49
56. S50 OR S51 OR S52 OR S53 OR S54
57. S55 AND S56
58. S4 OR S57
59. TX systematic review
60. (MH "Meta Analysis")
61. TX metaanalysis or meta-analysis
62. (MH "Systematic Review")
63. S59 OR S60 OR S61 OR S62
64. S58 AND S63 Limiters - Exclude MEDLINE records

Appendix 7. Proquest Dissertations and Theses database search strategy

1. exp Chronic Disease/
2. exp Disabled Persons/
3. (disable* or disabil* or impairment or handicap).mp.
4. ((persistent or long* term or ongoing or degenerative or chronic or progressive) adj3 (disease* or ill* or condition* or insufficienc* or disorder* or impair*)).tw.
5. exp cardiovascular diseases/

6. (heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure).tw.
7. sickle cell.mp.
8. exp lung diseases obstructive/
9. (obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis).tw.
10. exp emphysema/
11. exp pulmonary emphysema/
12. emphysema.tw.
13. (cystic fibrosis or respiratory distress).mp.
14. exp nervous system diseases/
15. (brain adj (disease* or damage* or injur*)).tw.
16. (cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*).tw.
17. (neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome).tw.
18. (paralys* or quadriplegi* or tetraplegi* or paraplegi*).tw.
19. ((communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor) adj disorder*).tw.
20. (hearing loss or hearing aid* or deaf* or blind* or stutter* or amput*).tw.
21. down* syndrome.tw.
22. cerebral palsy.tw.
23. exp gastrointestinal diseases/
24. (gastroenter* or intestinal or bowel or colonic).tw.

25. renal insufficiency/
26. ((renal or kidney) adj (failure* or insufficienc*)).tw.
27. diabetes mellitus/
28. (diabetes or diabetic*).tw.
29. exp nutrition disorders/
30. (underweight or malnutrition or malnourished or overweight or obes*).tw.
31. exp arthritis/
32. exp rheumatic diseases/
33. (arthritis or osteoarthritis or rheumati* or fibromyalgia).tw.
34. ((back or neck) adj pain).tw.
35. exp thyroid diseases/
36. thyroid.tw.
37. exp hypersensitivity/
38. (hypersensitivit* or allerg* or intolerance or anaphyla*).mp.
39. exp neoplasms/
40. (cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia).tw.
41. exp hiv infections/
42. (hiv infect* or hiv disease*).tw.
43. exp mental disorders/
44. exp behavioral symptoms/
45. ((mental* or psychiatr* or psychological*) adj (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)).tw.
46. ((personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related) adj disorder*).tw.

47. (psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd).tw.
48. (((substance or drug or alcohol) adj abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* adj1 drinking)).tw.
49. S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48
50. exp Rehabilitation, Vocational/
51. (occupational adj (counsel* or training or intervention* or rehabilitation)).tw.
52. (vocational adj (counsel* or training or intervention* or rehabilitation)).tw.
53. (work adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)).tw.
54. (job adj (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)).tw.
55. S50 OR S51 OR S52 OR S53 OR S54
56. systematic review.mp.
57. exp Meta-analysis/
58. (metaanalysis or meta-analysis).mp.
59. S56 OR S57 OR S58
60. S49 AND S55 AND S59

Appendix 8. Evidence Search (NICE) search strategy

1. Vocational Rehabilitation

Appendix 8. Business Source Complete search strategy

1. Chronic Disease
2. Disabled Persons
3. disable* or disabil* or impairment or handicap
4. persistent or long* term or ongoing or degenerative or chronic or progressive (disease* or ill* or condition* or insufficienc* or disorder* or impair*)
5. cardiovascular diseases
6. heart disease* or heart failure or myocardial ischemia or coronary disease* or coronary artery disease* or myocardial infarction or hypertension or high blood pressure
7. sickle cell
8. lung diseases obstructive
9. obstructive lung disease* or obstructive pulmonary disease* or copd or asthma or bronchitis
10. emphysema
11. pulmonary emphysema
12. cystic fibrosis or respiratory distress
13. nervous system diseases
14. brain (disease* or damage* or injur*)
15. cerebrovascular or brain ischemia or cerebral infarction or carotid artery disease* or stroke or epilep* or seizure*
16. neurodegenerative or Huntington* or Parkinson* or lateral sclerosis or multiple sclerosis or motor neuron disease or muscular dystrophy or Steinerts* or facioscapulohumeral or progressive bulbar palsy or myasthenia gravis or Gillian Barre or West Nile or muscular atrophy or Spondylosis or osteoarthritis or scoliosis or spinal stenosis or herniated nucleus pulposus or spinal arachnoiditis or cranial hemorrhage or cranial haemorrhage or aneurysm* or aphasia or dysarthria or apraxia or dystonia or ataxia or paraparesis or regional pain syndrome or neuropathy or neuritis or supranuclear palsy or Steele-Richardson-Olszewski or multi system atrophy or myositis or encephalitis or meningitis or clinical isolated syndrome
17. paraly* or quadriplegi* or tetraplegi* or paraplegi*
18. communication or learning or consciousness or perpetual or speech or voice or vision or hearing or psychomotor disorder*
19. hearing loss or hearing aid* or deaf* or blind* or stutter* or amput*

20. down* syndrome
21. cerebral palsy
22. gastrointestinal diseases
23. gastroenter* or intestinal or bowel or colonic
24. renal insufficiency
25. (renal or kidney) (failure* or insufficienc*)
26. diabetes mellitus
27. diabetes or diabetic*
28. nutrition disorders
29. underweight or malnutrition or malnourished or overweight or obes*
30. arthritis
31. rheumatic diseases
32. arthritis or osteoarthritis or rheumati* or fibromyalgia
33. back or neck pain
34. thyroid diseases
35. thyroid
36. hypersensitivity
37. hypersensitivit* or allerg* or intolerance or anaphyla*
38. neoplasms
39. cancer* or oncolog* or neoplasm* or carcinom* or tumo?r* or malignan* or leuk?emia
40. hiv infections
41. hiv infect* or hiv disease*
42. mental disorders
43. behavioral symptoms

44. mental* or psychiatr* or psychological* (ill* or disorder* or disease* or distress* or disab* or problem* or health* or patient* or treatment)
45. personality or mood or dysthymic or cognit* or anxiety or stress or eating or adjustment or reactive or somatoform or conversion or behavior or perception or psycho* or impulse control or development* or attention deficit or hyperactivity or conduct or motor skills or movement or tic or substance related adj disorder*
46. psychos#s or psychotic* or paranoi* or schizo* or neuros#s or neurotic* or delusion* or depression or depressive or bipolar or mania or manic or obsessi* or compulsi* or panic or phobic or phobia or anorexia or bulimia or neurastheni* or dissociative or autis* or Asperger* or Tourette or dyslex* or affective or borderline or narcissis* or suicid* or self injur* or self harm or adhd
47. ((substance or drug or alcohol) abuse) or "substance use" or "illegal drug use" or addict* or alcoholism or (problem* drinking)
48. S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13 OR S14 OR S15 OR S16 OR S17 OR S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38 OR S39 OR S40 OR S41 OR S42 OR S43 OR S44 OR S45 OR S46 OR S47
49. Rehabilitation, Vocational
50. occupational (counsel* or training or intervention* or rehabilitation)
51. vocational (counsel* or training or intervention* or rehabilitation)
52. work (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or rehabilitation)
53. job (counsel* or intervention* or accommodation or adjustment or ability or disabil* or retention or maintenance or modification or trial or placement or development or coaching or creation)
54. S49 OR S50 OR S51 OR S52 OR S53
55. systematic review
56. Meta-analysis
57. metaanalysis or meta-analysis
58. S55 OR S56 OR S57
59. S48 AND S54 AND S58