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The adult social care outcomes framework:

A systematic review of systematic reviews to support its use and development

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REPORT

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Contents

Terms, abbreviations and symbols

Abbreviations

ADL	Activities of daily living
ASCOF	Adult Social Care Outcomes Framework
CBT	Cognitive-behavioural therapy
CT	Controlled trial
DH	Department of Health (UK)
HRQL	Health-related quality of life
IPS	Individual placement support
LTC	Long-term conditions
nRCT	Non-randomised controlled trial
OECD	Organisation for Economic Co-operation and Development
OT	Occupational therapy
QA	Quality appraisal
QoL	This abbreviation is used solely to refer to measures of generic quality of life, which is one type of quality of life measure, as explained in Box 2 (p.7)
RA	Rheumatoid arthritis
RCT	Randomised controlled trial
SR	Systematic review

Definitions

Authors: refers to the authors of the individual reviews contained within this review of reviews and is used in relation to assessments or conclusions reported by authors in those reviews

Reviewers: refers to the team of reviewers conducting this review of reviews and relates to assessments or conclusions made by that team

Meta-analytic reviews: Reviews which combine the findings of their included studies statistically

Narrative reviews: reviews which synthesise their findings non-statistically

Summary statements: where authors group together the results of studies and report the direction of the findings from this pooled group

Symbols

The following symbols are used in the tables:

 Evidence of positive impact

 No evidence of difference between intervention and control group

 Evidence of harm

? Evidence inconclusive – conflicting evidence/limited evidence

Preface

Scope of this report

This report describes the methods and findings of a systematic review of systematic reviews to support the use and development of the Adult Social Care Outcomes Framework (ASCOF).

It contains evidence from systematic reviews on the efficacy of social care interventions for supporting the four outcomes set out in the ASCOF: quality of life, delaying and reducing the need for support (prevention), satisfaction with services, and safeguarding of vulnerable adults.

The review examines which social care interventions evaluated in systematic reviews have been found to be effective, which have not been found to be effective and which have been found to be harmful. The review also examines evidence on how much impact effective social care interventions have on ASCOF outcomes.

How to read this report

Because this review is a systematic review of systematic reviews, using explicit and rigorous methods to synthesise the evidence in this topic area, the report is necessarily detailed. Without compromising on the transparency that is expected of a systematic review, we have taken a number of steps to facilitate readability for readers who are more concerned with the findings of the review, than its methods.

First, in order to give prominence to the findings of the review, we have divided the report into two sections: Part I focuses on the findings of the review with only very brief information given on the methods; Part II describes the review methods in detail, and presents extensive tables that detail the research the review contains.

Second, we have structured the findings chapters to make the evidence accessible to readers. Each findings chapter provides: a) an overview of the evidence at the beginning of each chapter; b) an in-depth narrative assessment with comprehensive details on the intervention, outcomes and populations components for each review; and c) tables providing a summary of the evidence from each review. The findings are reported in three chapters:

- Chapter 3 examines evidence from all included reviews (n=43). It explores which social care interventions are effective for achieving ASCOF outcomes, and which are not.
- Chapter 4 highlights evidence which shows a harmful impact of social care interventions on ASCOF outcomes, in order to make clear which interventions should be avoided.
- Chapter 5 examines the evidence on how much impact effective social care interventions have; exploring data on the magnitude of effects to illustrate which interventions have the greatest impact on ASCOF outcomes.

Executive summary

Background

This report is the final report from a systematic review of reviews to support the use and development of the Adult Social Care Outcomes Framework (ASCOF). It presents evidence from systematic reviews on the impact of social care interventions on the four ASCOF outcomes: quality of life, reducing and delaying the need for support (prevention), satisfaction with services, and safeguarding.

Methods

The research involved identifying and analysing evidence from systematic reviews to answer the following research question:

Which social care interventions can effectively improve outcomes for services users in the four outcome domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?

Key findings

- Large overall evidence base
    - 43 systematic reviews covering hundreds of studies and thousands of participants
- Evidence clustered around particular outcomes, interventions and populations
    - Outcomes
        - The vast majority of evidence is on quality of life and prevention outcomes
        - Evidence on satisfaction with services and safeguarding is severely limited
    - Interventions
        - Physical activity interventions are those most widely evaluated in systematic reviews, followed by occupational therapy interventions
        - No evidence is available on some key social care interventions, e.g. direct payments
    - Populations
        - The majority of evidence concerns people with long-term conditions (e.g. dementia, cancer, stroke)
        - There is much less evidence on older people or people with mental health problems
        - Evidence on learning or physical disabilities is extremely limited.

Interventions with evidence of positive effect

- Evidence of positive impact was found for seven of the 14 social care interventions examined in the included reviews: physical activity, occupational therapy, supported employment, lay/peer support, hip protectors, assistive devices and personal assistance.
- Evidence on the scale of positive impacts was available for five of these interventions:
    - Larger positive impacts resulted from integrated employment and mental health support and from hip protectors
    - Both larger and smaller impacts were found across eight physical activity reviews and two occupational therapy reviews
    - Smaller impacts resulted from a lay-led self-management intervention.

Interventions with evidence of harm

- Two reviews contained evidence that interventions shown to be effective for some populations could potentially cause harm to vulnerable social care recipients:
    - Tai chi, though effective for older people in general, was found to increase the rate of falls among frail older people
    - Exercise was found to have positive impacts on people exercising for rehabilitation after a period of ill health, but a negative impact on the psychological QoL of people exercising to manage their condition.

Interventions not shown to be effective

- There were seven interventions for which no conclusive positive evidence was found:
    - All available evidence on the following interventions was inconclusive: structured communication, safeguarding training, home hazard assessment
    - All available evidence on the following interventions showed no evidence of difference between intervention and control groups[1]: case management, social support
    - Of two reviews on alternative therapies, one found no evidence of difference between groups and another found inconclusive evidence.
- Inconclusive evidence was also found for some interventions shown to be positive in other reviews: physical activity, occupational therapy, personal assistance, assistive devices, lay/peer support, supported employment
- No evidence of difference was found in some reviews for interventions which were found in other reviews to have positive effects: physical activity, assistive devices, lay/peer support, supported employment.
- On balance, the overall evidence suggests that physical activity interventions and occupational therapy *are* effective.

[1] The statement 'no evidence of difference' does not indicate an absence of evidence, nor does it indicate equivalence between comparison groups. Demonstrating equivalence, or no difference, is difficult and relatively rare as it requires a very large study. Most studies attempt to demonstrate a difference between groups. The statement 'no evidence of difference' indicates that statistical tests were not able to detect any significant differences in outcomes between those receiving social care interventions and those in control or comparison groups. This lack of difference may be because the study was not large enough to detect any differences that there may have been between groups, or that the intervention actually had no effect.

Part I: Background and findings of the review

1. Background

This chapter provides background information on the scope of the report; it is an introduction to the nature and purpose of the work. It provides:

- information on the nature and purpose of the Adult Social Care Outcomes Framework (ASCOF)
- an overview of existing research in the area
- the rationale for conducting a systematic review of reviews
- an overview of the challenges of reviewing evidence in social care.

1.1 Social care: quality and outcomes

In November 2010 the UK Government consultation document Transparency in outcomes: *a framework for adult social care* (Department of Health 2010a) was published alongside its major policy statement *A vision for adult social care: capable communities and active citizens* (Department of Health 2010). These documents set out a new strategy for achieving transparency, quality and outcomes in adult social care. A key element of the Government's approach to accountability in the future system was the development of the Adult Social Care Outcomes Framework (ASCOF). An updated version of the ASCOF was published in 2012 (Department of Health 2012).

The ASCOF is a basket of measures that is available nationally to enable councils to drive forward improvement on outcomes and quality locally. Designing the ASCOF through consultation has required the use of a number of criteria to assess the appropriateness of individual measures. One of the criteria being used is the extent to which the outcomes can be improved by councils and whether this can be done cost-effectively. Focusing on outcomes that councils cannot improve, or for which the costs of improving are disproportionate, would risk diverting resources which could be used more cost-effectively.

In order to build a view of the evidence to influence the structure and development of the ASCOF, there was a pressing need to review existing evidence on the efficacy of social care services and bring this together in a transparent way which supports decision making.

1.2 Existing research

The need for systematic reviews to support decision making in social care has long been recognised with reviews emerging since the 1980s (see for example Parker 1985). The mid-1990s saw the UK Government expressing a commitment to evidence-based social care, which led to the establishment of the Social Care Institute for Excellence (SCIE) whose remit was to commission, conduct and disseminate syntheses of research relevant to social care (Macdonald 2003). A wealth of nationally and internationally relevant social-care related systematic reviews have been published since then, including those conducted by SCIE. However, these systematic reviews have tended to focus on specific populations and/or specific interventions, rather than particular outcomes.

Large numbers of systematic reviews focusing on older people are available in several areas, such as falls prevention (Cameron 2010; Gillespie 2009; Gates 2008; Campbell 2007); physical function and the maintenance of independent living (Crotty 2010; Eklund 2009; Beswick 2008); and elder abuse (Daly 2011; Darzins 2009; Killick 2009; Ploeg 2009; Lindbloom et al. 2007).

Many systematic reviews in the area of mental health focus on services that support people living in the community, such as day centres (Catty 2007) and supported living (Chilvers 2002). Similar foci can be found in reviews in the area of physical disabilities: personal assistance (Mayo-Wilson et al. 2008), low intensity support (Quiglars 2000) and welfare to work (Bambra et al. 2005).

The maintenance of physical health (Robertson et al. 2010; Balogh 2008), community participation (Verdonschot et al. 2009), abuse prevention (Barger 2009; Bruder and Kroese 2005) and personal assistance (Mayo-Wilson et al. 2008) are examples of systematic review foci in relation to people with intellectual disabilities.

The wealth of systematic review evidence has already led researchers to conduct a systematic meta-review on one aspect of social care. Published in 2010, a meta-review of international evidence assessed the impact of interventions on carers for two of the key ASCOF outcomes: satisfaction and quality of life (Parker et al. 2010). This meta-review also examined the following related outcomes: physical health, mental health, burden, stress and strain, and coping skills. As meta-review evidence is already available relating to carers, we do not examine the evidence for this population group within this review of reviews.

The examples cited above illustrate the specificity, diversity and volume of reviews across the field of social care. However, in order to support decision-making around social care clarity is needed about the quality of those systematic reviews and the evidence they contain, as well their relevance to social care interventions and outcomes. This and the lack of meta-review level evidence in most areas, makes clear the need to undertake a review of reviews or 'meta-review', in order that this burgeoning evidence base becomes navigable for decision makers.

1.3 A systematic review of reviews to support the ASCOF

By appraising and pooling available evidence, systematic reviews provide a robust and accessible summary of evidence for decision-makers. When a topic area is particularly broad or when it is already populated with many systematic reviews a systematic review of reviews or 'meta-review' is an appropriate solution. The ASCOF covers the whole of social care, which is a very broad area over which to carry out a systematic review. Systematic reviews are available on many aspects social care and on a range of service user groups. Whilst previous systematic reviews have attempted to assess the nature of social care services (Challis et al. 2004) and the quality of research evidence relating to social care in the United Kingdom (Reilly et al. 2008), this meta-review will be the first, as far as we are aware, that systematically reviews evidence on the effectiveness of interventions across the entire spectrum of social care

1.4 The challenge of reviewing in the field of social care

Systematic reviews attempt to address carefully defined research questions. As part of the review process, reviewers need to define carefully all of the terms within their questions. They need to come up with indicators for the various phenomena they are examining and use these to construct explicit criteria for including or excluding studies. This enables reviewers to act systematically when deciding which research reports are relevant for analysis, and helps readers know what is, and is not, covered by the review.

It is not hard to see, however, that major challenges exist for a review that aims systematically to address the entire field of social care. As is illustrated in Box 1,

the field is vast and complex, with a lack of agreed definitions, and research publications that often lack transparency.

Box 1: Systematically reviewing social care – some challenges

The **diversity and complexity of social care** is illustrated by policy developments in the UK which mean that it is now seen as including not only long-standing services that support people with the activities of daily living, but also more recent moves towards devolving budgets to individuals; it also includes initiatives that might reduce the need for social care through more effective provision of transport, leisure and other so-called 'universal services'. There is also an increased focus on integrating health and social care that makes it difficult, or even sometimes of questionable value, to identify the distinct contribution of social care practices. Understanding of the field is further complicated by differences in the organisation, delivery and practice of social care between countries.

- In terms of definitions, there is a **lack of agreement**, even within the UK, as to what constitutes social care or social care populations. Similarly, the ASCOF framework makes reference to various kinds of potential social care outcome, but aims to illustrate, rather than provide watertight definitions.
- Research publications in general are often written in **language that lacks transparency** because it is tailored for readers from a particular geographical area or from a specific discipline, meaning that, in the absence of direct communication from the authors, other readers often have to make assumptions about the practices under study.

A major component of this review, therefore, has been work to establish definitions and identify indicators of the main phenomena being reviewed. This is outlined in Chapter 2, and described more fully in Part II of this report. At this point, however, readers might find Box 2 helpful, as a quick reference-guide to understanding the kinds of intervention, populations and outcomes that were sought by reviewers in order to provide evidence about the impact of social care interventions on outcomes relevant to the ASCOF framework.

Box 2: Notes on the range of evidence sought during the review

This box contains a quick introduction to the scope of the review described in this report. For the complete definitions applied by reviewers, see Section 7.3.

Main review question: Which social care interventions can effectively improve outcomes for services users in the four outcome domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?

Identifying social care interventions

Approach taken: Because of a lack of agreed definition in this area, and a need to attribute outcomes to social care per se; reviewers looked for descriptions of interventions and those providing them. Interventions needed to be led by or completely provided by someone other than a health professional, and have the aim of supporting activities of daily living, or preventing an increased need for services, rather than treating a condition.

Impact of the approach taken: This review contains evidence about various interventions that might not immediately be recognised as social care, including physical activity programmes, music and other complementary therapies, alongside evidence about services more widely recognised as social care (such as occupational therapy, personal assistance and assistive devices). Because of the prevalence of physical activity and occupational therapy research in the wider literature, this review of reviews is dominated by evidence on these interventions. This is likely to be due to the longer history and more established infrastructure for examining the efficacy health related interventions in systematic reviews compared to purely social care interventions.

Identifying social care populations

Approach taken: Populations often considered to be the main recipients of social care (people with mental illness, physical or learning disabilities, older people and carers) were within scope. Studies involving people defined as having long-term-conditions (LTC), such as arthritis and other musculoskeletal conditions, were also sought, as these conditions can often lead to difficulties with activities of daily living and an escalation in the need for social care services. For the purposes of this review, dementia was considered to be an LTC, rather than a form of mental illness.

Impact of the approach taken: Because of the preponderance of research into LTCs, this population group appears far more frequently than do people from other groups more commonly associated with social care (such as older people and people with physical or learning disabilities). Reviews on people with LTCs often did not make clear whether the populations focused on required or were eligible for state-funded social care support. However, evidence on effective interventions for this group will still be valuable in addressing ASCOF outcomes among those with LTCs who do require social care support.

Identifying social care outcomes

Approach taken: The outcomes examined in this review are those set out in the ASCOF document: quality of life, delaying and reducing the need for support (prevention), satisfaction with services, and safeguarding. Within the first two outcomes, quality of life and prevention, different domains were identified and coded for. Within quality of life, we capture data on generic quality of life measures (QoL), those relating to being able to take part in the activities of daily living (ADL), those relating to participation in social activities such as employment (social participation), and those relating to feeling safe or having a sense of control or dignity (dignity/control). Within prevention, we capture both direct measures of increased need for the use of health or social care services, such as time spent in hospital (service use), and measures of illness or events, such as falls, which could lead to an increased need for services (illness/events).

Impact of the approach taken: The included reviews often took different approaches to classifying outcome measures relating to activities of daily living and mental health. Below are described the decisions we took in order to ensure consistency in classification for this review of reviews.

In some of the included reviews mental health outcomes were reported as health events in their own right, in others they were explored as aspects of quality of life. Evidence indicates that quality of life and mental health are different constructs; studies measuring both have found that interventions have a different impact on each (Schuch et al. 2011 p.43). Moreover, it is clear that poor mental health could lead to an escalation of service need. As such we have captured all mental health outcomes within the prevention sub-component – illness/events.

Regarding activities of daily living, just over half of the reviews explicitly conceptualised it as an aspect of, or having a profound effect on, quality of life; in others it was reported separately and was often linked to people's level of need for social care services. Whilst those reviews which separated activities of daily living from quality of life provided no justification for this approach, many of those which conceptualised it as quality of life often provided compelling reasons for doing so. Many reviews cited World Health Organisation definitions of quality of life as emphasising the importance of people's independence and ability to engage in productive occupations and social activities (WHOQOL Group 1998). As such we have captured evidence about function and disability within the sub-component of quality of life 'activities of daily living'.

2. Methods

This chapter provides brief details of the methods used for this report. Part II provides a more detailed account. However, in order to assist readers who wish to focus on the findings this chapter reports brief details on:

- The research questions this review was set up to answer
- How research to answer these questions was identified
- How the review data was analysed and synthesised.

2.1 Review questions

The review was conducted using the following research questions:

Primary review question

Which social care interventions can effectively improve outcomes for services users in the four outcome domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?

Secondary review questions

- What evidence is available on the cost-effectiveness of social care interventions?
- Are there types of services or groups of service users for which there is currently little or no available review or primary level evidence regarding the efficacy of interventions?
- Do reviews with evidence about the four ASCOF outcomes indicate other important outcomes, or ways of understanding the existing outcomes, that should be considered in future revisions of the ASCOF?

2.2 From mapping to in-depth review

The review was conducted in two stages: the creation of a systematic map which described the characteristics of existing systematic reviews within a given scope; and an in-depth review focusing on a particular subset of reviews. A meeting convened by the DH considered the systematic map and advised the review team on potential areas to prioritise for further in-depth investigation. This report presents the findings of the in-depth review and the methods used to produce its findings.

2.3 Identifying relevant reviews

To produce the systematic map and in-depth review, extensive searches were run in a variety of bibliographic databases. Appendix 7 contains the details of one search to illustrate the detailed and comprehensive approach to searching. Almost 16,000 citations were screened for possible inclusion in the review. A set of definitions (of social care interventions, social care populations and ASCOF-relevant outcomes) were drawn up to help the review team identify relevant studies from within this set of citations (see Part II). To be included in the map, reviews had to:

- be systematic reviews (with defined search strategy and use of explicit criteria for inclusion of studies)

- report one or more summary statements of findings about the impact of social care services upon one or more adult social care populations
- present findings about one or more of the four ASCOF outcomes (quality of life, prevention, satisfaction and safeguarding)
- not be restricted to studies from non-OECD countries
- be published in English, from 2000 onwards.

To be considered for the in-depth review, reviews had to:

- meet all of the criteria for inclusion in the systematic map
- be published from 2007 onwards
- report findings from social care populations other than carers.

Additional criteria were applied in order to identify the most trustworthy findings and to identify findings on the scale of impact. Justifications for all criteria are outlined in Appendix 8.

2.3.1 Data extraction, quality appraisal and synthesis

A set of data extraction questions, developed specifically for this review, was used to extract and record information from each review. Two questions were applied to each review to ensure that they met at least minimum requirements for review quality and reviewers were guided to extract authors' descriptions of study populations, outcomes and interventions and authors' summaries of intervention effects.

The synthesis of evidence had two parts: the first aimed to identify effective interventions; the second aimed to identify the scale of impact of effective interventions. The findings from reviews with similar topics were grouped and synthesised using a narrative approach. Where possible, these syntheses presented review authors' pooling of data. Often, authors had presented findings in narrative form. The individual syntheses for this review often needed to call upon findings from more than one review; as a result, the syntheses in this review are themselves narrative in form.

3. Which social care interventions, examined in systematic reviews, are effective for achieving ASCOF outcomes?

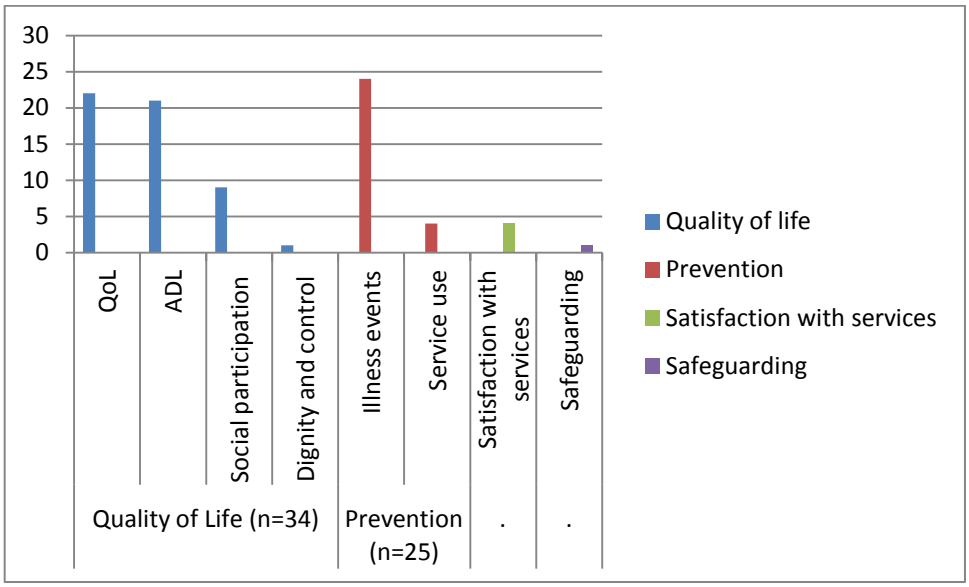
This chapter reports evidence from included reviews on whether those receiving social care interventions fared better than those in comparison or control groups. It is organised into the following sections:

- An overview of the evidence on which social care interventions are effective (3.1)
- Evidence on interventions to support quality of life outcomes (3.2)
- Evidence on interventions to support prevention outcomes (3.3)
- Evidence on interventions to support satisfaction with services (3.4)
- Evidence on interventions to support safeguarding (3.5)
- Evidence on cost-effectiveness (3.6)

3.1 Systematic reviews examining the impact of social care interventions on ASCOF outcomes

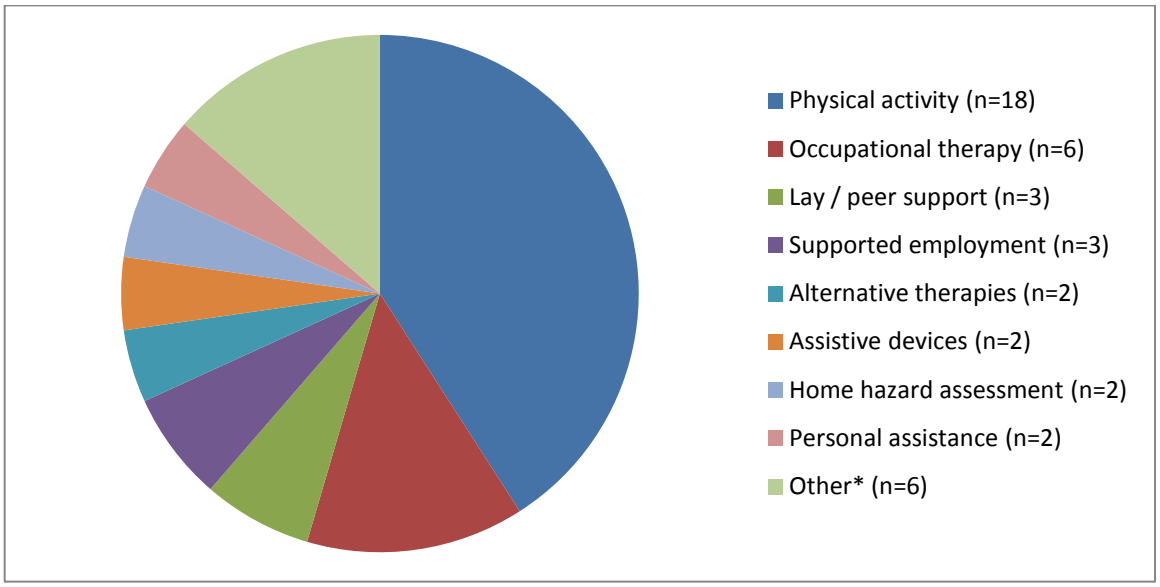
A total of 43 systematic reviews were found which examined impacts on ASCOF outcomes and met quality and relevance criteria. They covered a range of outcomes, interventions and populations, although they were clustered in several areas. In relation to outcomes, the largest group of reviews examined quality of life outcomes (34 reviews). Reducing and delaying the need for support was also commonly examined (25 reviews). Far fewer reviews examined users' satisfaction with the services they receive (4 reviews) and just one review examined safeguarding outcomes. In relation to populations covered, most reviews focused on populations with LTCs. A large number (14) of different intervention types were examined but just over two-fifths of the reviews (n= 18) focused on physical activity interventions. Figures 3.1a, b and c provide an overview of the outcomes, interventions, and populations examined in the review.

Figure 3.1a: Outcomes examined in the included reviews



Note: reviews could examine more than one type of outcome.

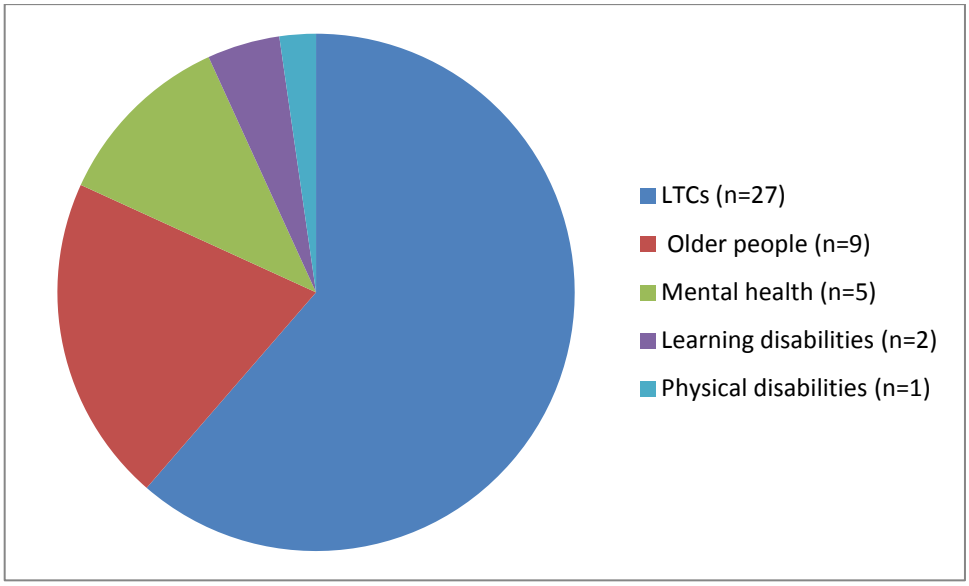
Figure 3.1b: Interventions examined in the included reviews



Notes: *Single reviews were found for the following 'other' interventions: education on safeguarding for nursing home staff, hip protectors, music therapy, post-stroke case management, social support, and structured communication.

Reviews could examine more than one type of outcome.

Figure 3.1c: Population groups in the included reviews



Note: reviews could examine more than one type of outcome.

3.2 Social care interventions for improving quality of life

Almost 80 percent of all included reviews (34 out of 43) examined the impact of interventions on quality of life. The vast number of reviews examining quality of life mean not only that there is a large body of evidence on this outcome, but also that the impact of a wide range of intervention types has been examined in relation to it. The most commonly examined intervention for which quality of life outcomes are available is physical activity (15 reviews), followed by OT (6 reviews).

Across the included reviews, evidence on four different domains of quality of life was examined. We use different terms to describe quality of life outcomes relating to these different domains:

- QoL refers to generic quality of life outcomes, e.g. health-related quality of life (HRQL)
- ADL refers to functioning and mobility in activities of daily living
- Social participation refers to aspects of participation and engagement in social activities such as employment
- Dignity and control refers to outcomes relating to feeling safe, having dignity and a sense of control over daily life.

An explanation of how we classified domains within quality of life is provided in Box 2 p. 7. As Figure 3.1a shows, there is not an even distribution of evidence across the quality of life domains within the systematic reviews, the vast majority of evidence being on QoL and ADL. Appendix 2 provides an overview of the characteristics of reviews with quality of life evidence.

Table 3.2: Overview of evidence on quality of life outcomes

Number of contributing reviews	**34**
Interventions*	1. Physical activity (15 reviews) 2. Occupational therapy (6 reviews) 3. Assistive devices (2 reviews) 4. Lay/peer support (2 reviews) 5. Personal assistance (2 reviews) 6. Alternative therapies (2 reviews) 7. Supported employment/education (3 reviews) 8. Other interventions (3 reviews)

*Note – Not mutually exclusive – one review assessed both occupational therapy and assistive devices

The following sections are organised by intervention type; within each intervention, the type of quality of life outcomes for which there is evidence is made clear.

3.2.1 Physical activity interventions for improving quality of life

Physical activity interventions – defined as planned, purposeful physical activity performed with the intention of acquiring fitness or other health benefits – were examined in 15 of the included reviews examining quality of life outcomes. These reviews covered a range of physical activity types and social care populations. Due to the large number of studies in this category, they have been organised in the synthesis below according to the different social-care population groups they covered.

Table 3.2.1a: Overview of evidence on physical activity interventions

Number of contributing reviews	**15**
Interventions	1. Walking based exercise for people with learning disabilities (1 review) 2. Aerobic and anaerobic exercise for people with depression (1 review) 3. Exercise-based interventions for older people (4 reviews) 4. Exercise for people with musculoskeletal conditions (4 reviews) 5. Exercise for people with cancer (4 reviews) 6. Exercise for rehabilitation or for condition management among people with LTCs (1 review)
Populations	Learning disabilities, mental health, older people, LTCs
Summary of evidence	• Walking-based exercise interventions were found to be effective for improving QoL outcomes in people with learning disabilities and cancer

Number of contributing reviews	15
	• Tai chi was found to be effective in reducing fear of falling among older people, but evidence on this intervention for improving QoL among people with arthritis was unclear • Aerobic exercise was found to produce small but statistically significant effects on QoL among people with musculoskeletal conditions • Exercise for people with LTCs was found to be effective for improving QoL outcomes when undertaken for rehabilitation purposes but not for condition management • Evidence on the impact of exercise programmes was found to be inconclusive in the remaining eight reviews examining QoL outcomes for older people and people with depression, musculoskeletal conditions and cancer

The detailed results are as follows:

- One review examined the impact of mainly **walking-based exercise programmes** for **people with learning disabilities**.
    - This review found a moderate level of evidence that exercise can increase quality of life for people with mild learning disabilities.
- One review evaluated the effects of **aerobic and anaerobic exercise** on quality of life for people with **depression**.
    - Limited evidence in this review led authors to conclude that the evidence was inconclusive for exercise for people with a clinical diagnosis of depression.
- Four reviews examined the impact of **exercise-based interventions** on quality of life outcomes in **older people**.
    - Limited evidence in three reviews, one of which meta-analysed findings for older people with dementia, led authors to conclude that evidence for the impact of exercise on ADL in community-based or institution-based older people was inconclusive.
    - The authors of one narrative review found strong evidence that tai chi was effective for reduced fear of falling for older people in long-term residential care.
- Four reviews examined the impact of either **aerobic exercise or tai chi** on quality of life in people with long-term **musculoskeletal conditions**: rheumatoid arthritis (2 reviews), osteoarthritis (1 review) and fibromyalgia (1 review).

  - Two reviews used meta-analysis to find that aerobic exercise produced small, but statistically significant effects on quality of life in people with fibromyalgia and rheumatoid arthritis.
  - Two reviews of tai chi for people with arthritis concluded that the evidence for impact was not convincing or was unclear.

- Four reviews examined the impacts of different kinds of **exercise programme** for people who had had a diagnosis of **cancer** (4 reviews).

  - Two reviews found the evidence to be inconclusive for quality of life in cancer care – exercise in palliative cancer care and yoga.
  - One meta-analysis of mainly walking-based programmes found these to be effective. One of the studies from this meta-analytic review was the basis for the conclusions of one further review, which found no evidence that dance therapy in particular was effective.

- One review examined the impact of **physical activity** on quality of life among people with a range of **long-term conditions**, distinguishing between populations that were exercising for rehabilitation and for management of their condition.

  - This meta-analytic review found a moderate positive effect of exercise on overall quality of life in people exercising for rehabilitation, but not in those exercising to manage their condition. In addition, it found evidence that psychological quality of life might decline in populations exercising to manage their condition, despite small improvements for these populations in physical quality of life.

Learning disabilities

The narrative review by Bartlo and Klein (2011) found 'moderate evidence' that exercise programmes increase quality of life for people with learning disabilities. The review included four randomised controlled trials (RCTs). Study participants all had mild learning disabilities with, or without, Down's syndrome. The authors judged their review's evidence as moderate, as all four studies were small, quality was variable, and one study found no evidence of a difference between intervention and comparison groups. The RCTs examined programmes that were mainly walking-based. One involved aerobic exercise for 20-40 minutes, 3 days per week, for 26 consecutive weeks; two used dynamic balance activities, with or without strength exercise; and one featured cardiovascular and resistance training with a health education class. Comparison conditions also varied considerably, from usual activity levels, through a vocational activity not involving physical exertion, to a general 45-minute exercise session. The review examined impacts on QoL. Measures used included a study-specific QoL scale, the individual perception of well-being, outcomes expectations and performance self-efficacy. Reviewers agreed that there is moderate evidence that exercise programmes can improve QoL for people with learning disabilities.

Mental health

Another narrative review, conducted by Schuch and colleagues (2011) examined the impact of exercise programmes on quality of life in people with clinical depression. The exercise programmes varied, and included aerobic and/or anaerobic sessions, with participants exercising between 2 and 3 times a week, for between 8 and 32 weeks. The SF-36 or the WHOQOL-BREF questionnaires were used

to measure the psychological (QoL), social (social participation) and physical (ADL) domains of quality of life, but the included studies (4 RCTs) were described as having 'methodological weaknesses'. The authors concluded that their findings suggested that exercise has a moderate to large positive impact on quality of life in unipolar depressed individuals, especially in components related to the ADL and psychological QoL domains, but that it was difficult to draw definitive conclusions. The reviewers also noted that, in the case of all three domains, some of the included studies found no evidence of effect and that, in sum, the findings were inconclusive.

Older people

Four reviews each examined the impact of various exercise-based interventions on ADL in older people, of which three concluded that there was insufficient or inconsistent evidence.

Forbes and colleagues (2008) conducted a meta-analysis of two RCTs of exercise interventions for older people with dementia. These studies used the Katz Index of ADL and the CADS scales to measure the impact of walking, stretching and balance training, or seated activities using canes, balls and weights to music. No significant difference on ADL outcomes was found when these activities were compared with usual care. Both studies were judged to be low quality and the authors concluded that there was insufficient evidence about the effectiveness of physical activity programmes in managing or improving function in older people with dementia.

A narrative review by Forster et al. (2009) sought studies of physical rehabilitation for older people in long-term care, where physical rehabilitation was defined as those interventions that aim to maintain or improve physical function. Programmes had mainly been built around strengthening exercises, walking, or exercises targeting flexibility, balance or endurance. Less commonly, programmes included tai chi, relaxation, breathing and aerobic exercises, functional exercise (repeating essential activities, such as standing), purposeful exercise (e.g. rotary arm exercise in the form of making biscuits), sensory stimulation, gardening or occupational therapy. Most were compared with usual care. A total of 36 RCTs were found that examined the impact on ADL using a variety of measures. Six were rated as having the highest level of quality, but almost all others were rated as methodologically unclear. The authors reported several interventions to be effective. They concluded, however, that while these interventions appear worthwhile, they require further study, and there is no clear indication of the optimum type of intervention. Reviewers also concluded that the evidence was inconclusive. The authors' report was judged to be unclear, but each of the reportedly effective interventions appeared either to have been evaluated by only one study, or by studies whose own methodological quality was unclear.

Daniels and colleagues' (2008) narrative review focused on exercise for preventing disability in frail older people living in the community. They found eight RCTs that evaluated programmes that were either multi-component (aimed at increasing endurance, flexibility or balance) or single component (aimed at increasing lower extremity strength). The interventions lasted from 10 weeks to 18 months. The studies were described as being of sufficient quality and measured impact on ADL. Comparison conditions varied from usual care, through attention controls or health education programmes, to a home exercise programme. Three out of the six evaluations of multi-component programmes reported statistically significant effects for disability outcomes. No difference was seen for the two evaluations of single-component programmes. The authors concluded that, while findings were inconsistent, there is some indication that long-lasting multi-component exercise

programmes for moderately physically frail older people can have an effect on ADL outcomes but no evidence that single component lower-extremity strength-training has an effect.

The narrative review by Harling and Simpson (2008) examined the impact of tai chi as a single intervention and when combined with exercise among community and institution-based older adults (mean age 78 years). Comparison groups included other exercise (stretching, motor placebo exercises such as ball games, progressive strength training and computerised balance training) or no exercise (advice and education). Programme intensity and duration varied; the number of tai chi sessions ranged from one to seven, and intervention duration ranged from eight to 104 weeks. The authors note that heterogeneity of the intervention, population and outcome measures precluded statistical meta-analysis. The authors found that of six included RCTs 'five high-quality studies demonstrated statistically significant reductions in fear of falling'. They were cautious in their ultimate conclusions, describing the evidence as 'weak'. The reviewers judged that these findings equate to limited support for tai chi for fear of falling in older adults, which they have taken to be a measure of the perceived control domain of quality of life for this social care population.

LTC – musculoskeletal

Two meta-analytic reviews examined the impact of aerobic exercise on quality of life for people with musculoskeletal conditions and both concluded that there was evidence of a positive impact. A meta-analytic review by Hauser and colleagues (2010) examined impact on health-related QoL among people suffering from fibromyalgia. Included studies examined a variety of aerobic exercise interventions, including cycling, walking, aquatic jogging, games, dance and rhythmic or boxing movements. Programmes ranged from under seven weeks to over twelve weeks in duration and were compared to either treatment as usual, another active therapy or attention control. Statistical meta-analysis of 25 RCTs of variable quality showed a small but statistically significant reduction on limitations of health-related QoL when compared with controls. The authors also noted that positive effects may persist over time as they could 'be detected at latest follow-up' (median 26 weeks). QoL was measured by either generic health-related QoL measures such as SF36 or by condition specific measures such as the Rheumatoid Arthritis Quality of Life Questionnaire. Although the authors were explicit that the quality of included studies was variable, all included studies were RCTs and they were of a sufficiently large number to suggest that the findings are robust. A review by Baillet et al. (2010) examined the impact of cardiorespiratory aerobic exercises for people with rheumatoid arthritis (RA) when compared with non-aerobic exercise, education or usual care. The review meta-analysed QoL outcomes for five RCTs, finding a small, but statistically significant effect. Studies were of a moderate methodological quality – only one was rated less than 3 out of a maximum 5 on the Jadad scale[2]. The authors conclude that this form of exercise improves QoL for people with RA.

Two reviews, focused on tai chi for people with musculoskeletal conditions (Hall et al. 2009; Lee et al. 2007) concluded that the evidence for impact was not

[2] The Jadad scale (Jadad et al. 1996) is a procedure to independently assess the methodological quality of a clinical trial.

convincing, or was unclear. Lee and colleagues (2007) focused on people with rheumatoid arthritis and compared tai chi (deep breathing and relaxation with slow and gentle movements) to education plus stretching exercise or usual activity. The review found evidence of a positive impact on QoL (vitality subscale of the SF36) from one RCT. Two RCTs measured impact on ADL (disability index; ability of daily life performance). The first was favourable to tai chi; the second indicated no evidence of effect. The authors conclude that due to the small numbers and low quality of the included studies these findings are 'not convincing' of an effect (p.1560). The review by Hall and colleagues (2009) compared tai chi with usual care or health education for people with chronic musculoskeletal pain. Their review included studies of quality of life for people with osteoarthritis, producing a narrative analysis for QoL (health-related quality of life n=3), and two meta-analyses for ADL (self-reported disability n=4; physical performance through a 50-foot walk test n=2). The included studies were described as being small and of low methodological quality. Small, positive effects were found for self-reported disability directly after the tai chi course. The other findings favoured tai chi but were less clear. The meta-analysis on the 50 foot walk test was not statistically significant and was based on just two studies. One of six individual findings from three studies measuring QoL did not favour the intervention, and of the remaining five only three were statistically significant. The authors concluded that the effect of tai chi on quality of life remains unclear.

LTC – cancer

Lowe and colleagues' (2009) narrative review sought evidence for physical activity as a supportive care intervention in palliative cancer patients. They found one low-quality RCT, which evaluated the effect of armchair fitness (exercise for 30 minutes, three times a week for 12 weeks) for people with stage IV breast cancer. The study measured both QoL (total well-being using the FACIT-F scale), and ADL (patient-reported physical function). The comparison condition was not described. The armchair fitness group had a statistically significant slower decline in total well-being than the comparison group, but no difference was seen between groups for physical function. The authors concluded that there was insufficient evidence to evaluate the efficacy of physical activity as a supportive care intervention in palliative care patients.

Lin and colleagues' meta-analytic review of yoga for psychological outcomes for people with cancer (2011) identified three further RCTs that examined impact on health-related QoL, using the FACT-B, EORTC QLQ-c30 and FACTG scales. All three studies compared yoga with a waiting list control group. All were judged to be low quality. The authors found a trend towards greater improvement in the yoga groups, and were cautious in their conclusion that, due to the low quality and small number of studies conducted, findings were preliminary and should be confirmed through higher-quality RCTs.

Floyd and Moyer's meta-analysis (2010) included a further 12 RCTs. This review sought to test the hypothesis that group exercise would result in greater improvement in QoL for breast cancer survivors than would individual exercise. Both group and individual exercise programmes were included in the analyses, but the comparison conditions were not described. Exercise programmes varied, but most were walking-based, or included walking. Dance, biking, resistance training, arm ergometers and swimming interventions were also included. The studies were described as having, on average, a fairly good methodological rating. A statistically significant medium-to-large positive effect was found for exercise on QoL, when

group and individual programmes were grouped together. Studies used a variety of self-report measures to assess QoL, often employing more than one. Most were cancer specific measures such as the Functional Assessment of Cancer Therapy but some were generic such as the SF36. No evidence was found that group programmes were more effective than individual programmes. The authors concluded that exercise interventions have a positive impact on QoL in breast cancer survivors.

One of the RCTs found by the Floyd et al. review was also the sole study identified in an additional review by Bradt and colleagues (2011) on the impact of dance therapy on QoL for people with cancer. Dance therapy was described as the psychotherapeutic use of movement as a process which furthers the emotional, social, cognitive and physical integration of the individual and is characterised by a goal-oriented, systematic treatment process. This one study found that the health-related QoL (as measured by the Functional Assessment of Cancer Therapy-Breast questionnaire) of women in a dance therapy intervention improved significantly compared with those in a waitlist control group after 12 weeks. Bradt et al. concluded that dance therapy may be beneficial, but reviewers judged the evidence to be inconclusive for this specific type of exercise because there was only one study.

Other LTC

One review, conducted by Gillison et al. (2009) examined the impact of exercise interventions on quality of life across people with different kinds of long-term condition. It aimed to investigate the influence of exercise setting and type on three quality of life outcomes and split populations into people who were expected to recover at least a near-full level of functioning (rehabilitation) and those who received an intervention for symptom management or to prevent deterioration where improvement in function was not expected (management). For the management population group, 24 RCTs provided findings about overall QoL, and 13 RCTs provided findings for both psychological QoL and ADL. For the rehabilitation population, twelve, four and five RCTs provided outcomes for QoL, psychological QoL and ADL respectively. Most of the interventions were walking-based, or included walking, but some also included stretching and resistance exercises. Comparison was made with people who were not given exercise programmes. While there is a chance that up to three of the included studies were included in the Floyd et al. review described above, this is unclear. The report does not describe appraisal of study quality. The authors state that three to six months post-baseline, a moderate positive effect on overall QoL was seen in people exercising for rehabilitation, but not in those exercising to manage their condition. In addition, those exercising to manage their condition reported a significant deterioration in psychological QoL, despite a small but significant improvement in ADL. For people exercising for rehabilitation, the effects on psychological QoL and ADL were not different from those who did not exercise. The authors concluded that their findings have implications for the timing of exercise interventions and that it would be beneficial to monitor psychological quality of life consistently alongside physical responses in people who exercise to prevent deterioration in a long-term condition. Although study quality appears not to have been assessed, the reviewers concur with the authors' conclusions, as they are based upon a fair to good number of RCTs for each different combination of quality of life domain and care population.

Whilst many of the reviews described above found positive results to support the use of physical activity interventions for supporting quality of life outcomes among social care populations, evidence in over half of the reviews (8 reviews) was found to be inconclusive. Thus, although there is a relatively large body of evidence on physical activity interventions compared to other intervention types, the promising evidence from some reviews suggests that more primary research and review-level evidence is warranted.

Table 3.2.1b: Summary of reviews on physical activity for improving quality of life[3]

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Baillet (2010)	LTC – Rheumatoid arthritis	**Intervention:** Aerobic exercise **Comparator:** non-aerobic exercise/ education/usual care	QoL	**Authors conclude**: 👍 **Contributing studies**: 5 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Fair: 4 out of 5 RCTs had Jadad score 3 (1=low, 5=high)	Reviewers conclude: 👍 Reviewers concur with authors that the evidence suggests 'A small beneficial effect of aerobic intervention on the quality of life of RA patients'
2	Bartlo (2011)	Learning disabilities	**Intervention:** Varied (most walking-based, with/without health education and strength/balance) **Comparator:** Usual care, vocational activity, general exercise session	QoL	**Authors conclude**: 👍 **Contributing studies**: 4 RCTs **Synthesis type**: Narrative **Quality of included studies:** Medium -quality scores ranged from 6-8 out of 11	**Reviewers conclude**: 👍 Reviewers agree with authors' description of level of evidence as 'moderate', as all four included RCTs were small, study quality was variable, and one found no evidence of difference between intervention and comparison groups

[3] 👍 Evidence of positive impact; 👉 No evidence of difference between intervention and control group; 👎 Evidence of harm;

? Evidence inconclusive – conflicting evidence/limited evidence

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3	Bradt (2011)	LTC – Cancer	**Intervention:** Dance therapy **Comparator:** Usual care	QoL	**Authors conclude**: 👍 **Contributing studies**: 1 RCT* **Synthesis type**: Narrative **Quality of included studies:** High * This study is also included by the Floyd review	**Reviewers conclude:** ? Reviewers considered the findings to be inconclusive, as based upon only one small study.
4	Daniels (2008)	Older people – frail, community living	**Intervention:** Multi-component (e.g. endurance, flexibility, balance) or single-component (lower extremity strength) **Comparator:** Usual care, attention control, health education, and home exercise programme	ADL	**Authors conclude**: ? **Contributing studies**: 8 RCTs **Synthesis type**: Narrative **Quality of included studies:** High	**Reviewers conclude:** ? Reviewers concurred with the authors' conclusion that there were no consistent findings regarding effect on disability

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
5	Floyd (2010)	LTC – Cancer	**Intervention:** Varied (most were walking-based, or included walking, also dance, biking, resistance training, arm ergometers and swimming) **Comparator:** Not stated	QoL	**Authors conclude**:  **Contributing studies**: 12 RCTs* **Synthesis type**: Meta-analysis **Quality of included studies:** 'Fairly good' (average 5.6 out of 8 on quality scale) * 3 of 12 studies are also possibly included in the Gillison disease management and rehabilitation meta-analyses; 1 further study is also analysed by the Bradt review	**Reviewers conclude**:  Pooled evidence is from a good number of RCTs
6	Forbes (2008)	Older people also with an LTC – dementia	**Intervention:** Walking with stretching and balance training, or seated activities using canes, balls and weights to music **Comparator:** Usual care	ADL	**Authors conclude**: ? **Contributing studies**: 2 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Low	**Reviewers conclude:** ? Because studies are limited in number and quality, reviewers concur with authors' conclusion that there is insufficient evidence for the impact of physical activity programmes on function in older people with dementia

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
7	Forster (2009)	Older people – in long-term care	**Intervention:** Physical rehabilitation (built around walking, exercise for flexibility, balance and endurance, relaxation, sometimes supplemented with more purposeful everyday activities such as cooking, gardening **Comparator:** Mainly usual care	ADL	**Authors conclude**: ? **Contributing studies**: 36 RCTs **Synthesis type**: Narrative **Quality of included studies:** Variable: 2 judged inadequate, 6 judged high quality, others judged unclear	**Reviewers conclude**: ? A number of this large set of studies reported impact on at least one measure of ADL, but the actual number is unclear from this report and none of the interventions described as effective appear to have been evaluated by more than one study of known quality. Reviewers therefore agree with the authors' conclusion that, while physical rehabilitation interventions appears worthwhile, the evidence is insufficient to recommend specific interventions

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
8	Gillison (2009)	LTC – various (separate analyses for rehabilitation and disease management populations)	**Intervention:** Exercise interventions (mainly Aerobic or walking, but also stretching, resistance, mixed) **Comparator:** No-exercise control group	a. QoL (overall) b. QoL (psycho-logical) c. ADL	**Authors conclude:** Rehabilitation 👍- a. 👉 – b. 👉 – c. Management 👉– a. 👎 – b. 👍 – c. **Contributing studies:** Rehabilitation*: a. 12 RCTs; b. 4 RCTs; c. 5 RCTs Management*: a. 24 RCTs; b. 13 RCTs; c. 13 RCTs **Synthesis type:** Meta-analysis **Quality of included studies:** Not assessed * It is possible that 3 of these studies are also meta-analysed by the Floyd review	**Reviewers conclude:** Rehabilitation 👍- a. 👉 – b. 👉 – c. Management 👉– a. 👎 – b. 👍 – c. While study quality appears not to have been assessed, the pooled evidence is from a fair to good number of RCTs for all QoL domains and populations

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
9	Hall (2009)	LTC – Osteo-arthritis	**Intervention:** Tai chi **Comparator:** Usual care/ health education/ waitlist control	a. QoL b. ADL (50 ft walk test) c. ADL (self-reported)	**Authors conclude**: ? – a ? – b 👍 – c **Contributing studies**: a. 3 RCTs; b. 2 RCTs; c. 4 RCTs **Synthesis type**: a. and c. Meta-analysis; b. Narrative **Quality of included studies:** Trials 'typically small and low methodologic quality'	**Reviewers conclude**: ?– a ? – b 👍 – c Reviewers concur with authors that the findings for the 50 ft walk test are unclear because of the small number of studies and low quality. They also concur that findings for QoL are conflicting and thus also remain unclear. Reviewers agree that findings suggest a small positive effect of tai chi on disability.
10	Harling (2008)	Older people – community-based and in-care facilities Mean age of participants: 78 years	**Intervention:** Tai chi – as a single intervention and when combined with exercise **Comparator:** either advice/education or other exercise (e.g. stretching, balance training)	Dignity/ control (fear of falling)	**Authors conclude**: 👍 **Contributing studies**: 6 RCTs **Synthesis type**: Narrative **Quality of included studies:** Good: All studies scored 6 or 7 points out of a possible 9	**Reviewers conclude**: 👍 Reviewers concur with authors as 5 out of 6 high-quality trials demonstrated statistically significant reductions in fear of falling

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
11	Hauser (2010)	LTC – Fibromyalgia	**Intervention:** Aerobic exercise **Comparator:** Treatment as usual/another active therapy/attention control	QoL	**Authors conclude**: 👍 **Contributing studies**: 25 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: 'only 2 studies fulfilled all predefined criteria of internal and external validity'	**Reviewers conclude**: 👍 Quality of included studies is variable – but findings are based on pooled evidence from a large number of RCTs (n=25)
12	Lee (2007)	LTC – Rheumatoid arthritis	**Intervention:** Tai chi **Comparator:** Education plus stretching exercise/ usual activity	a. QoL b. ADL	**Authors conclude**: ? - a, b **Contributing studies**: a.1 RCT, b. 1 RCT **Synthesis type**: Narrative **Quality of included studies:** 'methodological quality of the included RCTs was low'	**Reviewers conclude**: ? - a, b Reviewers concur with authors that 'evidence is not convincing', since it is based on 1 small, low-quality RCT
13	Lin (2011)	LTC – Cancer	**Intervention:** Yoga **Comparator:** Waitlist control groups	QoL	**Authors conclude:** ? **Contributing studies**: 3 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Low: quality scores 4–5 out of 10	**Reviewers conclude:** 👍 Reviewers concur with authors that, due to the small number and poor quality of studies, the findings should be considered preliminary

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
14	Lowe (2009)	LTC – Cancer (palliative care)	**Intervention:** Seated exercise (armchair fitness) **Comparator:** Not stated	a. QoL b. ADL	**Authors conclude**: ? - a, b **Contributing studies**: 1 RCT **Synthesis type**: Narrative **Quality of included studies:** Low	**Reviewers conclude:** ? - a, b Reviewers agree with authors that 'there is insufficient evidence to evaluate the efficacy of physical activity as a supportive care intervention in palliative cancer patients'
15	Schuch (2011)	Mental health – depression	**Intervention:** Aerobic and anaerobic exercise **Comparator:** Health education or usual care	a. QoL b. ADL c. Social participation	**Authors conclude:** 👍 – a and b; ? – c **Contributing studies**: a. 4 RCTs; b. 4 RCTs; c. 4 RCTs **Synthesis type**: Narrative **Quality of included studies:** Described as having 'methodological weaknesses'	**Reviewers conclude:** ? - a, b and c Reviewers share the authors' concerns that small study numbers, and methodological limitations weaken their conclusions. In addition, some studies found no evidence of effect (2/4, 1/4 and 2/4 for analyses a, b and c respectively)

3.2.2 Occupational therapy for improving quality of life

The six reviews on OT constitute the second largest group of reviews on a single intervention type with evidence on quality of life outcomes. The reviews all examine OT for people with LTCs, but they examine a range of OT types.

Table 3.2.2a: Overview of evidence on occupational therapy

Number of contributing reviews	**6**
Interventions	Occupational therapy (6 reviews)
Populations	LTCs
Summary of evidence	• Findings from OT reviews were mixed • OT for people who have had a stroke (1 review) or have Alzheimer's (1 review) was found to be effective for improving ADL outcomes • A second review on people with Alzheimer's found inconclusive evidence of an impact on ADL outcomes but found it was effective for QoL (1 review) • Life-skills training for people with schizophrenia was not found to be effective for any quality of life measure • Inconclusive evidence was found in two reviews on OT for people with other LTCs and with Parkinson's

- Six reviews examined the impact of OT interventions on quality of life outcomes:
  - OT focused on the activities of daily living for people who have had a stroke and for people who have Alzheimer's is effective for improving ADL.
  - A second review on OT for people with Alzheimer's found evidence of a positive impact on QoL, but evidence on ADL was inconclusive.
  - Life-skills training for people with schizophrenia was not found to be effective for any quality of life measure.
  - Findings from two reviews suggest that the evidence remains inconclusive about the impact of OT on quality of life outcomes for people with Parkinson's and other LTCs.

The narrative review on occupational therapy for people with Parkinson's by Dixon and colleagues (2007) concluded that it is 'unsafe to draw any conclusions regarding the efficacy of occupational therapy'. The authors suggest that the evidence is not conclusive due to the small number and poor quality of the included studies. The review included two poor-quality RCTs, and each was found to evaluate 'significantly different' occupational therapy interventions. One RCT examined general mobilisation activities, socialisation, dexterity, functional and educational activities; the other examined the impact of handicrafts, picture drawing, basketry, folk singing, dancing and games. Comparison conditions were also found to be significantly different. Although the included trials found evidence in favour of the intervention, the reviewers concur with the authors of the review that the poor quality and small number of included studies means that this evidence should be regarded as inconclusive. Just one study measured

QoL using a health-related quality of life measure (The Nottingham Health Profile). ADL was measured in both reviews each using a different measurement tool (one used the Barthel Index, the other used the Brown ADL self-evaluation score).

The narrative review by Hand and colleagues (2011) investigated the impact of OT for people with chronic conditions. It examined two outcomes relating to ADL: activities of daily living and physical function. The authors concluded that community OT interventions were effective for improving outcomes in relation to activities of daily living based on three RCTs, but found no evidence of difference between intervention and control groups for physical function based on nine RCTs. However, reviewers had several concerns about this review. First, reviewers were left unclear as to the extent that interventions provided evidence about occupational therapy; many were multidisciplinary in nature. The review appeared to examine a range of interventions, but gave little detail about each evaluated intervention – describing them as commonly including 'goal setting, energy conservation, joint protection, exercise, assistive devices, and coping strategies'. Second, reviewers were concerned that the authors did not report statistical data to verify their conclusions; a supplemental table provided data for the intervention group only; it did not provide data on differences between the intervention and control groups. Third, the quality of the included studies was poor; the authors acknowledge that 'most studies included had methodological limitations'. Thus, the reviewers do not feel confident to regard the findings as conclusive evidence.

The meta-analytic review by Legg et al. (2007) concluded that occupational therapy for stroke patients which specifically focuses on personal activities of daily living has a significant positive impact on personal and instrumental activities of daily living and significantly reduces the likelihood of a poor outcome. The authors estimate that approximately 11 patients need to be treated to avoid one patient deteriorating in personal activities of daily living. Intervention components included home-based rehabilitation support, facilitation of new skills and support to develop independence in activities of daily living. Control group participants received either no intervention or usual care. The review included nine RCTs, of which eight were entered into a meta-analysis on ADL and seven were entered into a meta-analysis on poor outcomes. The quality of the included studies was assessed to be generally good.

The review by Olazaran and colleagues (2010) examined the impact of a range of non-pharmacological therapies for people with Alzheimer's, examining their impact on a range of outcomes, including QoL and ADL. The two intervention evaluations examined that measured QoL were those examined in the Padilla (2011) review described below, so these findings will not be discussed further. The review also examined seven studies of non-pharmacological therapies for supporting ADL. Four of these examined activities of daily living training interventions, one of which was also common to the Padilla (2011) review. However, as the authors report that positive results were found in all four of the identified studies, the findings on these interventions are reported here. The three interventions unique to this review were all delivered to cognitively impaired nursing-home residents, one examined scheduling and prompting to reduce urinary incontinence, one involved graded assistance to improve individual autonomy and the third was a way-finding intervention to assist residents in locating a dining room. Positive results, compared to usual care controls were found ADL for each of the three studies and when they were combined in meta-analysis. All three studies were assessed as low-quality RCTs. The other three RCTs examined group sessions of cognitive stimulation, reminiscence and relaxation. Positive results compared to control groups were found for ADL in two of the RCTs, but evidence in a third study showed no evidence of difference. Meta-analysis of these three studies, however, indicated a positive result. Thus, the reviewers concur with the authors that overall, the results of

the two meta-analyses suggest that non-pharmacological therapies to improve ADL are effective.

The review by Padilla (2011) examined the impact of three types of OT interventions designed to modify activity demands in self-care and leisure for people with Alzheimer's: OT matching the client's skills and interests, the use of cues and environmental modifications. Evidence on the first two intervention types is described here; evidence on environmental modifications is described in Section 3.2.3 on assistive device interventions. OT interventions matching the client's skills and interests were described as tailored programmes which selected or modified activities to match an individual's highest level of retained skills. Included studies examined impact on both general QoL and on ADL; the specific measures used by studies for these outcomes were not reported. Authors were cautious in their conclusions about the evidence due to methodological limitations of the studies, small sample sizes and lack of robust outcome measures, but suggested that interventions that match the interests and skills of people with Alzheimer's can support general QoL and ADL outcomes. However, the detailed findings reveal that whilst significant positive difference between intervention groups and control groups receiving usual care were found from three RCTs for QoL, the evidence for ADL was mixed. Of four RCTs measuring impact on ADL, two found significant between-group differences, but a further two RCTs found no evidence of difference. Also examined in this review were OT interventions involving the use of cues, defined as verbal or visual cues matched to people's capabilities in order to support performance of daily living activities at the highest possible level. The single RCT which examined this intervention found significantly improved performance in ADL of the experimental group compared to the control group. However, in addition to only having evidence from a single RCT, the authors were again cautious in their conclusions because of the small sample size in the study. Thus, reviewers concluded that interventions matching client's skills and interests are effective for supporting QoL in people with Alzheimer's, but that evidence on these OT interventions for supporting ADL is inconclusive.

The effects of 'life skills' programmes for people with schizophrenia were examined in the narrative review by Tungpunkom et al. (2012). Life skills programmes were defined as interventions delivered to groups or individuals which addressed independent functioning in daily living (managing money, organising and running a home, domestic skills, personal self-care and related interpersonal skills). The authors found no evidence of a difference in quality of life outcomes for those receiving life skills interventions compared to controls receiving either peer support or standard care. The review identified three low-quality RCTs with usable outcome data on quality of life outcomes; each RCT provided data on a single aspect of quality of life. One RCT examined impact on QoL using the Quality of Well-Being Scale, a second examined ADL outcomes through life skills measures (household activities, kitchen skills, laundry skills, self-care skills) and a third examined social participation using a measure entitled 'social skills performance'. However, only one RCT provided evidence for each aspect of quality of life and the quality of evidence was rated as 'low'. As a result, whilst the authors conclude that there is 'no evidence to suggest that the life skills programme was superior to the control group for any outcome' (p. 23), the reviewers judged the evidence to be inconclusive.

Table 3.2.2b: Summary of reviews on occupational therapy for improving quality of life

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Dixon (2007)	LTC – Parkinson's	**Intervention**: OT alone/OT plus group physiotherapy **Comparator**: Not stated/physiotherapy alone	a. QoL b. ADL	**Authors conclude:** ? – a, b **Contributing studies**: a = 1 RCT, b = 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Poor: 'significant methodological flaws in the studies'	**Reviewers conclude**: ? – a, b Reviewers concur with authors that the evidence is inconclusive due to the small number and poor quality of the included studies
2	Hand (2011)	LTC – Various	**Intervention:** Community OT **Comparator:** Usual care/ waitlist/ no intervention	a. ADL b. Physical function	**Authors conclude:** 👍a/ 👉b **Contributing studies**: a = 3 RCTs; b = 9 RCTs **Synthesis type**: Narrative **Quality of included studies:** Poor: 'Most studies had methodological limitations'	**Reviewers conclude**: ? - a, b Reviewers are concerned about the quality of the studies and the relevance of evidence for OT, and that no statistical information is provided to support the authors' claims about study findings

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3	Legg (2007)	LTC – Stroke	**Intervention**: OT focused on activities of daily living **Comparator**: No intervention or usual care	ADL	**Authors conclude:**  **Contributing studies**: 8 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Good: quality of included trials 'generally good'	**Reviewers conclude**:  Reviewers concur with authors that occupational therapy focused on improving personal activities of daily living after stroke can improve performance and reduce the risk of deterioration in these abilities
4	Olazaran (2010)	LTC – Alzheimer's	**Intervention:** Activities of daily living training (e.g. incontinence training) **Comparator:** Usual care	ADL	**Authors conclude:**  **Contributing studies**: 6 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Low: 'Grade B' level evidence 'consistent evidence from low-quality RCTs'	**Reviewers conclude**:  Reviewers concur with authors as the vast majority of individual studies showed positive outcomes and meta-analysis confirmed this result

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
5	Padilla (2011)	LTC – Alzheimer's	**Intervention**: OT (matching clients' skills and interests/use of cues) **Comparator**: Usual care	a. QoL b. ADL	**Authors conclude:** 👍a, b **Contributing studies**: 6 RCTs **Synthesis type**: Narrative **Quality of included studies:** Poor: results should be considered 'preliminary'	**Reviewers conclude**: 👍a/ ? b Whilst authors cautiously conclude that the OT interventions examined improve both generic and ADL outcomes, reviewers felt that the limited and mixed evidence on ADL outcomes was inconclusive
6	Tungpunkom (2012)	Mental Health – Schizo-phrenia	Intervention: Group or individual life skills training, e.g. financial/ interpersonal/ domestic life skills Comparator: Peer support/ Standard care	a. QoL b. ADL c. Social participatio n	**Authors conclude**: 👍 a, b, c **Contributing studies**: 3 RCTs (a = 1 RCT, b = 1 RCT, c = 1 RCT) **Synthesis type**: Narrative **Quality of included studies:** Poor: 'The quality of the current evidence … is very low'	**Reviewers conclude**: ? a, b, c Whilst the authors conclude that there is 'no evidence to suggest that the life skills programme was superior to the control group for any outcome', the evidence is limited to only one study for each outcome, therefore reviewers judge the evidence to be inconclusive

3.2.3 Assistive devices for improving quality of life

Two reviews examined the impacts of adaptive equipment/modifications on ADL for populations with LTCs. Overall the evidence on assistive devices for improving quality of life is fairly limited.

Table 3.2.3a: Overview of evidence on assistive devices

Number of contributing reviews	**2**
Interventions	1. Environmental modifications and adaptive equipment (1 review) 2. Adapted eye drop device (1 review)
Populations	LTCs
Summary of evidence	• Environmental modifications and adaptive technologies are effective in improving daily functioning for people with Alzheimer's according to one review • There is inconclusive evidence about the impact of assistive devices for people with rheumatoid arthritis

- Two reviews assessed the impact of assistive devices on populations with LTCs. The assistive devices were diverse, including home or environmental modifications and adaptive technologies.
    - The authors of a narrative review found that environmental strategies and assistive devices led to improvements in daily functioning for people with Alzheimer's disease.
    - One narrative review found inconclusive evidence about the effect of assistive devices for people with rheumatoid arthritis

A narrative review by Padilla (2011) examined the impacts of environmental modifications and adaptive devices for people with Alzheimer's disease. Described as 'compensatory and environmental strategies', these interventions were tailored to meet the needs of individual participants. The interventions examined in the two included RCTs included modifications to the home setting (such as labels on drawers and visible emergency telephone numbers) and adaptive devices (such as pill reminder boxes). Compared to usual care, groups who received these interventions demonstrated improved daily functioning. As the review authors note, the interventions were diverse, and the studies had confounding factors and small sample sizes. Despite these concerns, the authors concluded that such strategies 'hold promise' and should be tailored to the unique needs of the person with Alzheimer's disease. Reviewers concur with the authors' note of caution.

Tuntland et al. (2009) undertook a narrative review on the effectiveness of assistive technology for people with rheumatoid arthritis. The review included one intervention: an eye drop device that makes it easier to self-administer eye drops (a bottle that is easier to hold, easier to squeeze and gets the drops right into the eye). Compared to a group using a standard bottle, the intervention group reported improvements in the application of eye drops and prevention of adverse effects (in terms of touching the eye

with the bottle tip). The findings were based on one RCT, with moderate limitations. The authors therefore concluded that the evidence on the effectiveness of assistive technology is inconclusive.

Overall, the evidence suggests that assistive devices may have positive impacts for people with long-term conditions. The two reviews in this synthesis both reported improvements in daily functioning for participants receiving the intervention. However, the limitations in the evidence base (concerns about the quality and number of studies) suggest that we should be cautious in our assessment of impact.

Table 3.2.3b: Summary of reviews on assistive devices for improving quality of life

Review		Population	Interventions	Outcome measure(s)	Review findings on Quality of Life	Reviewer agreement?
1	Padilla (2011)	LTC: Alzheimer's disease	Intervention: environmental modifications and adaptive equipment Comparator: Usual care	**ADL**	**Authors conclude:** 👍 **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** 'Studies used small and somewhat non-representative samples'	**Reviewers conclude:** 👍 Studies report consistent positive effects but have limitations and so the interventions 'hold promise' for quality of life outcomes
2	Tuntland (2009)	LTC: Rheumatoid arthritis	**Intervention:** adapted eye drop device **Comparator:** use of a standard bottle	ADL	**Authors conclude**: ? **Contributing studies**: 1 RCT **Synthesis type**: Narrative **Quality of included studies**: Poor: 'RCT with moderate limitations … evidence was graded as low.'	**Reviewers conclude:** ? There is very limited evidence for the effect of assistive technology for adults with rheumatoid arthritis

3.2.4 Lay/peer support for improving quality of life

Two reviews examined the impacts of lay/peer support on ADL and generic QoL for populations with long-term conditions.

Table 3.2.4a: Overview of evidence on lay/peer support

Number of contributing reviews	**2**
Interventions	1. Internet-based peer-moderated self-management support (1 review) 2. Lay-led self-management education programmes (1 review)
Populations	LTCs (2 reviews)
Summary of evidence	• Internet-based peer-moderated self-management support may be beneficial for people with arthritis though evidence inconclusive due to a lack of studies • Meta-analysed evidence on lay-led self-management programmes indicated that it was not effective for people with LTCs

- Two reviews examined whether lay or peer support improved quality of life among people with a range of LTCs:

    - In one review internet-based peer-moderated self-management support was found to result in significant reductions in activity limitation compared to controls among people with arthritis but evidence comes from just one study
    - In another review no significant difference in QoL was found between people with LTCs receiving lay-led self-management programmes and control groups receiving usual care.

The narrative review by Bender et al. (2011) included one RCT (N=855) from the US, which assessed the effect of internet-based peer support on pain management in adults with arthritis (mean age 52 years). The intervention was a six-week asynchronous message board-based self-management support programme that was facilitated by two peer moderators, and included weekly learning modules and symptom assessment tools. The role of the moderators was to facilitate and monitor the discussion group. The control group received usual care and a $10 gift certificate. This RCT had a low-quality Jadad score. Compared to control, the peer-moderated support programme showed significant reductions in activity limitation (Activities Limitation Scale; p=0.001) for people with arthritis. However, the reviewers found the evidence inconclusive, as it comes from just a single low quality study.

A Cochrane review by Foster et al. (2007) included three UK RCTs which examined the impact of lay-led self-management education programmes on QoL outcomes using the health-related QoL measure EuroQol (EQ5D). The interventions were ASMP (Arthritis Self-Management Programme) for adults (mean age 57 years) with arthritis (1 RCT,

N=164); CDSMP (Chronic Disease Self-Management Program) for Bangladeshi adults (mean age 48 years) with chronic disease (diabetes, arthritis, respiratory or cardiovascular) (1 RCT, N=476); and CDSMP for adults with self-defined long-term conditions (musculoskeletal, endocrine, circulatory, myalgic encephalitis/chronic fatigue, respiratory, mental health and neurological conditions) (1 RCT, N=629). Control groups received usual care.

Both ASMP and CDSMP typically consist of a structured course of six weekly sessions each lasting around 2.5 hours and led by one to two trained and accredited lay facilitators, acting as a positive role model. The sessions cover topic such as goal setting and problem solving; lifestyle changes around diet, exercise and sleep; identifying resources; symptom management; dealing with anger, fear and frustration; and communication with health professionals. Meetings were generally held in non-NHS premises. In this review, the CDSMP was culturally adapted into the Sylheti dialect and Islamic culture, omitting culturally inappropriate topics such as instructions relating to power of attorney (living wills). Participants were also given a videocassette (1 RCT) covering the course content. The three RCTs were judged to be high (n=1) or intermediate (n=2) quality. Results of change from baseline in QoL were meta-analysed up to 6 months follow-up and they showed no significant difference between the intervention and the control groups. There was significant heterogeneity.

Table 3.2.4b: Summary of reviews on lay/peer support interventions for improving quality of life

Review	Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
Bender (2011)	LTC – Pain (arthritis)	**Intervention:** Inter-net-based and peer-moderated self-management programme **Comparator:** Usual care + $10 gift certificate	ADL	**Authors conclude:** 👍 **Contributing studies**: 1 RCTs **Synthesis type**: Narrative **Quality of included studies:** Low: Jadad Score 1	**Reviewers conclude**:? Only based on 1 'very low' quality study
Foster (2007)	LTC – Chronic conditions (arthritis, diabetes, mental health)	**Intervention**: Lay-led self-management education programmes (ASMP, CDSMP) **Comparator:** No intervention/usual care	QoL	**Authors conclude:** ☜ **Contributing studies**: 3 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: 1 = high, 2= fair	**Reviewers conclude**: ☜ Concur with authors that there was no difference between intervention and control

3.2.5 Personal assistance for improving quality of life

Table 3.2.5a: Overview of evidence on personal assistance

Number of contributing reviews	2
Interventions	Personal assistance (2 reviews)
Populations	Older people (1 review); Physical and learning disabilities (1 review)
Summary of evidence	• Two reviews use the same evidence to report on personal assistance for older people and for disabilities • The findings suggest that QoL and social participation for both population groups may be supported by personal assistance, but evidence on ADL outcomes is mixed

- Two reviews examined the effects of personal assistance interventions on quality of life outcomes. One review focused on participants with physical and intellectual disabilities the other investigated older people in the community.

    - The two reviews used evidence from the same set of studies to explore the impact of personal assistance on QoL for older people and for people with disabilities
    - The findings for both population groups are the same
    - Evidence suggests that personal assistance may support general QoL and social participation, but mixed evidence on a range of ADL outcomes suggests that this evidence is inconclusive

Two narrative syntheses focused on the effectiveness of personal assistance on quality of life outcomes (Mayo-Wilson et al. 2008; Montgomery et al. 2008). One examined its impact among people with physical and learning disabilities (Mayo-Wilson et al. 2008); the other explored impacts for older people living in the community (Montgomery et al. 2008). Personal assistance consisted of individualised support for people living in the community, delivered by a paid assistant other than a healthcare professional, for at least 20 hours per week, provided for an indefinite period of time. Each review reported the average number of days intervention participants spent in hospital or a long-term care setting compared to those in the control group.

The two reviews use the same two studies (1 RCT, 1 nRCT) to assess a number of quality of life outcomes: general QoL (measured by life satisfaction), social participation (measured by participation – e.g. religious attendance, contact with friends, visiting friends) and ADL (functional status and unmet needs in activities of daily living). The Montgomery review also included a third nRCT which measured general QoL, social participation and ADL (functional status measure only). Although there is overlap in terms of the included studies – and reported outcomes are the same for both population groups – both reviews are reported due to the different population groups covered in each. The Montgomery review included two studies which found statistically significant differences favouring the intervention group on general measures of QoL (only one of these studies was relevant to the Mayo review). Both reviews also cautiously concluded

that personal assistance may improve social participation. In addition, they concluded that personal assistance may result in improved ADL outcomes but reviewers found the findings to be mixed. Whilst the authors present evidence of a significant positive impact on reducing unmet needs for ADL, personal assistance was not found to have a positive impact on the other ADL outcome used in these reviews (functional status). Indeed, one of the included studies suggested that personal assistance may have a negative impact compared to agency-delivered care for some participants, but the authors noted that this could be a statistical artefact. Thus, the reviewers find the evidence for personal assistance on ADL inconclusive.

Table 3.2.5b: Summary of reviews on personal assistance for improving quality of life

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Mayo-Wilson (2008)	Physical and learning disabilities	**Intervention:** Personal assistance – ≥20 hrs/ week individualised support from a paid assistant **Comparator:** Any other form of care	a. QoL b. ADL c. Social participation	**Authors conclude**: 👍 a, b, c **Contributing studies**: 1 RCT, 1 nRCT **Synthesis type**: Narrative **Quality of included studies:** Good**:** randomised study with 'some risk of bias'	**Reviewers conclude**: See below
2	Montgomery (2008)	Older people living in the community	**Intervention**: Personal assistance – ≥20 hrs/ week individualised support from a paid assistant **Comparator**: Any other form of care	a. QoL b. ADL c. Social participation	**Authors conclude:** 👍a, b, c **Contributing studies**: 1 RCT, 2 nRCTs **Synthesis type**: Narrative **Quality of included studies:** Good**:** randomised study with 'some risk of bias'	**Reviewers conclude**: 👍a, c/ ? b The conflicting findings on activity and mobility outcomes suggest that the evidence is inconclusive. Reviewers concur with the authors' cautious conclusions on generic QoL and social participation

3.2.6 Alternative therapies for improving quality of life

Two included reviews examined the impact of alternative therapies on quality of life. These reviews examined different therapies but both considered populations with long-term conditions.

Table 3.2.6a: Overview of evidence on alternative therapies

Number of contributing reviews	**2**
Interventions	1. Acupuncture (1 review) 2. Biofield therapies (1 review)
Populations	People with long-term conditions (stroke, cancer, pain)
Summary of evidence	• Findings on alternative therapies were mixed • Evidence on biofield (healing touch) therapies was inconclusive as included studies had conflicting findings • Acupuncture was not shown to be effective for QoL or ADL

- Two reviews assessed the impact of alternative therapies, acupuncture and biofield therapies, on quality of life outcomes for people with long-term conditions.
    - The authors of a narrative review on biofield therapies concluded that evidence is inconclusive. The review had few studies, of variable quality, and conflicting findings for different population groups.
    - Two meta-analyses on acupuncture found no evidence of effect for QoL or ADL; each was based on five RCTs of variable quality.

Jain and Mills (2010) undertook a 'best evidence' synthesis to determine the effects of biofield therapies for populations with LTCs (pain, cancer). Biofield therapies are a range of techniques that claim to use subtle energy to stimulate the body's own healing process. Reiki, therapeutic touch and healing touch are examples of such approaches. These procedures were compared with mock or placebo treatments. For populations with pain, the review found limited but high-quality evidence (3 RCTs) that biofield therapies may improve health-related QoL, as rated by the SF-36. There was conflicting evidence about the impacts of these therapies for populations with cancer. One study found an increase in QoL following one week of Reiki compared to controls, while another reported no difference after a four-week Johrei treatment compared to a control group. A further study examined the impact of therapeutic touch on terminal cancer patients and found an increase in well-being compared to a control. These three studies were lower-quality RCTs. The authors note that more studies are needed to examine quality of life as a primary outcome and thus concluded that the evidence is currently inconclusive.

A meta-analysis by Kong Jae et al. (2010) compared the effect of acupuncture with 'sham' acupuncture procedures for populations recovering from stroke. 'Sham' acupuncture refers to a range of control procedures that are used to conceal treatment allocation in RCTs. Examples of sham procedures include the use of sham needles, or acupuncture on non-acupuncture points. The authors conducted a series of meta-analyses each with five RCTs of varying quality. All analyses (including those conducted

only with three higher-quality studies) showed no effect of acupuncture on health-related QoL or ADL. This finding was reported at the end of the intervention period and a follow-up. The authors therefore conclude that there is no evidence of effect of acupuncture on these outcomes.

Table 3.2.6b: Alternative therapies for improving quality of life

Review	Population	Interventions	Outcome measure(s)	Review findings on Quality of Life	Reviewer agreement?
1 Jain (2009)	a. LTC – Pain b. LTC – Cancer	**Intervention:** Biofield therapies – therapeutic touch, healing touch, and Reiki **Comparator:** Mock or placebo-controlled treatment group	QoL	**Authors conclude:** ? **Contributing studies**: a. 3 RCTs, b. 3 nRCTs **Synthesis type**: Narrative **Quality of included studies:** a. high-quality, b. variable-quality	**Reviewers conclude**: ? Overall, evidence is inconclusive. The review found positive effects for pain population (3 high-quality RCTs) but conflicting evidence for cancer populations (3 variable-quality studies).
2 Kong Jae (2010)	LTC – Stroke	**Intervention:** Acupuncture **Comparator:** 'Sham' acupuncture	a) QoL b) ADL	**Authors conclude**: ☜a,b **Contributing studies**: a. 5 RCTs, b. 5 RCTs **Synthesis type**: Meta-analysis **Quality of included studies**: Studies 'often suboptimal quality' so authors also conducted sub-analyses with the 3 'rigorous' trials	**Reviewers conclude:** ☜ a,b Agree with authors that the meta-analyses did not show a positive difference in favour of acupuncture

3.2.7 Supported employment and education for improving quality of life

Table 3.2.7a: Overview of evidence on supported employment

Number of contributing reviews	**3**
Interventions	1. Individual placement support (1 review) 2. Supported education (1 review) 3. Vocational training (1 review*) 4. Education and voluntary work (1 review*)
Populations	People with mental health problems
Summary of evidence	• Individual placement support is effective for supporting social participation through employment • Supported education programmes are effective for increasing participation in education • Education and voluntary work interventions are effective for improving generic QoL outcomes • Vocational training and support is not effective for generic QoL outcomes or social participation • Evidence on the impact of supported employment interventions on ADL is inconclusive

* 1 review examined multiple supported employment intervention types

- Three reviews examined the impact of **supported employment** interventions on quality of life outcomes **for people with mental health problems**. One review examined a number of supported employment intervention types.
    - **Individual placement support** (IPS – personalised interventions which integrate mental health and employment services) is effective for supporting social participation through employment (1 review)
    - **Supported education at the post-secondary level** for people with serious mental illness is effective for increasing engagement in education (1 review)
    - **Vocational training** and support does not have a positive impact on QoL outcomes or social participation; evidence on ADL is inconclusive (1 review)
    - Studies grouped under a heading of **education and voluntary work** were found to have a significant impact on QoL, but for other quality of life outcomes, evidence on these types of intervention was inconclusive (1 review).

Individual placement support for people with severe mental illness, examined in the review by Bond and colleagues (2008), was found to be effective for improving quality of life by supporting social participation (engagement in employment). The meta-analytic review included 11 RCTs but did not assess their quality. However, four of the RCTs were also included in the review by Dickson and Gough (see below) and were assessed by them as being methodologically sound. Supported employment interventions were described as personalised services involving integrated mental health and

employment services with a focus on gaining competitive employment. The review found that those receiving the intervention gained employment at a far higher rate than those receiving usual care or employment support that was not integrated with mental health services. The review also found that compared to control groups, those receiving individual placement support obtained employment nearly 10 weeks earlier. Compared to controls, IPS participants were also found to find work quicker (time to first employment 20 weeks vs 30 weeks), hold a job for longer (22 weeks vs 16.3 weeks), and work for more weeks over the course of a year (12.1 vs 4.8 weeks).

The narrative review by Arbesman and Logsdon (2011) examined a range of occupational therapy interventions for people with severe mental illness. One of the interventions examined was supported employment, emphasising goal setting, skill development and cognitive training, and the authors concluded that 'evidence that they are effective is good' (p. 242). Two RCTs were described as providing evidence that these interventions resulted in increased participation in educational pursuits (greater enrolment in educational courses or employment training). This review also examined supported employment but did not report any usable additional evidence on this intervention. The review authors had themselves only assessed reviews, rather than primary-level evidence and the only included review published after 2006 was that produced by Bond et al. (already discussed above).

The narrative review by Dickson and Gough (2008) examined the impact on 'non-vocational outcomes' of a number of supported employment interventions: integrated services, vocational training, voluntary work and education. However, to avoid double counting of evidence, the findings on integrated services are not reported here as a significant number of studies on this intervention (4 RCTs) were also contained in the meta-analytic review by Bond et al. (2008), which found conclusive evidence for this intervention as described above. This report therefore describes only the findings from the Dickson and Gough (2008) review relating to vocational training, voluntary work and education.

The review included three trials (1 RCT, 2 CTs) on vocational training, and two trials on voluntary work and education (2 RCTs); all were assessed as methodologically sound. Vocational training interventions were defined as community-based services delivering preparatory training and different forms of supported employment, such as transitional employment. In the voluntary work and education group, one trial was on supported education and the other on work internships. Control groups received no routine input, e.g. standard mental health services. All three vocational training studies found no evidence of difference between groups for QoL (overall satisfaction with life, satisfaction with finances or measures of hope, confidence and motivation) or for the social participation outcome 'social capital' (perceived improvements in social support networks, social relationships, social contacts and community participation). Evidence on ADL (engagement in daily living activities) was inconclusive due to mixed findings: one CT found a significant positive difference, whilst the other two trials found no evidence of difference. In the voluntary work and education group, findings for ADL and social participation were also inconclusive, because there was evidence from only one trial in each instance. However, the both of the RCTs in this group found a significant positive impact on QoL outcomes.

Each of the reviews with evidence on supported employment interventions focused on people with mental health problems; thus, little is known about the applicability of this intervention for other population groups. In addition, quality of life was the only ASCOF outcome measured in each of the reviews; no evidence was found on the impact of supported employment/education interventions on other ASCOF outcomes such as preventing the need for increased services or satisfaction with services.

Table 3.2.7b: Summary of reviews on supported employment for improving quality of life

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Arbes-man (2011)	Mental health – serious mental illness	**Intervention:** Supported education **Comparator:** Other intervention, usual care	Social participation	**Authors conclude:** 👍 **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Good: 'good quality'	**Reviewers conclude:** 👍 Reviewers cautiously agree with authors that supported education results in increased engagement – but feel that the quality of the evidence was not established and the number of studies was limited
2	Bond (2008)	Mental health	**Intervention**: Individual placement support (IPS) –integrated mental health/employment support **Comparator**: Usual care or non-integrated employment support	Social participation	**Authors conclude:** 👍 **Contributing studies**: 11 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Not assessed	**Reviewers conclude:** 👍 Compared to controls, IPS participants obtained competitive employment at a far higher rate and obtained their first job nearly 10 weeks earlier

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3a	Dickson (2008)	Mental Health	**Intervention**: Community-based vocational training and employment support **Comparator**: No routine input	a. QoL b. ADL c. Social participation	**Authors conclude:** ☜a, c/? b **Contributing studies**: 1 RCT; 2 CTs **Synthesis type**: Narrative **Quality of included studies:** Good: high or medium ratings 'methodologically sound'	**Reviewers conclude**: ☜a, c/? b
3b	Dickson (2008)	Mental Health	**Intervention**: Voluntary work and education **Comparator**: No routine input	a. QoL b. ADL c. Social participation	**Authors conclude:** 👍a/ ? b, c **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Good: high or medium ratings 'methodologically sound'	**Reviewers conclude**: 👍a/ ? b, c

3.2.8 Other interventions for improving quality of life

The remaining three interventions for which there is evidence on quality of life outcomes were each examined in a single review only. Each of these three reviews focused on interventions for people with LTCS, one on people who had had a stroke, and two on people with dementia.

Table 3.2.8a: Overview of evidence on other interventions

Number of contributing reviews	**3**
Interventions	Post-stroke case management (1 review) Individual music therapy (1 review) Structured communication (1 review)
Populations	LTCs
Summary of evidence	• Post-stroke case management was not found to be effective for supporting QoL or ADL outcomes • Evidence on individual music therapy and structured communication for people with dementia was inconclusive

- The remaining three interventions which examined quality of life outcomes were each assessed in a single review only.
    - No differences in QoL or ADL outcomes were found between those receiving post-stroke case management and controls in one review
    - Evidence was inconclusive for two interventions for care-home residents with dementia: individual music therapy and structured communication interventions.

The narrative review by Allison et al. (2011) examined the efficacy of post-stroke case management on a range of outcomes. No significant differences on quality of life measures were found between people receiving social care interventions and controls receiving usual care. The included RCTs evaluated interventions with both a healthcare and a social care element and could include a review of medications and an assessment of longer-term disability and caregiver needs, as well as the provision of information and signposting to other services. Intervention duration was between three and nine months. Of nine included RCTs, eight evaluated social care interventions. Four examined QoL using either generic health-related QoL instruments (SF36, Reintegration to Normal Living Index) or stroke specific ones (Stroke-Adapted Sickness Impact Profile). A further four examined ADL using the Barthel Index. Only one small low-quality RCT showed a positive impact on quality of life; in every other case the results were from medium or strong studies and showed no evidence of difference between intervention and control groups. The reviewers concur with authors that 'Overall, the findings do not support the use of stroke support workers, care coordinators, or case managers working in the ways described in these studies to deliver the primary care-based healthcare and social-care review after stroke' (p. 221).

The narrative review by Chatterton and colleagues (2010) concluded that music interventions are 'highly effective in increasing social interactions of people with

dementia' (p. 644). However, the authors' decisive conclusion about individual music therapy sessions delivered to residential care home residents with dementia was based on just two available studies, one of which did not use a rigorous design (non-controlled trial). Moreover, the internal validity of the single study with a rigorous design (nRCT) was not assessed and evidence of difference between intervention and control groups was not reported (only evidence relating to the intervention group before and after the intervention was reported). Because of the lack of evidence and uncertainty about its quality, the reviewers feel that the efficacy of music interventions has not been established.

A review on structured communication interventions for care home residents with dementia (Vasse et al. 2010) identified ten studies (3 nRCTs, 7 RCTs), five of which were entered into a meta-analysis. Eight of the ten studies in the narrative analysis showed no evidence of a difference between intervention recipients and control groups; the statistically pooled evidence from five high-quality RCTs also showed no evidence of a difference between groups. The authors highlight that the two studies which demonstrated a positive effect examined interventions that were single-task sessions. However, as the vast majority of studies showed no evidence of difference between groups, the reviewers concluded that overall the evidence does not show a benefit of structured communication.

Table 3.2.8b: Summary of reviews on other interventions for improving quality of life

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Allison (2011)	LTC – Stroke	**Intervention:** Primary care-based follow-up after stroke, involving both a healthcare and social-care element **Comparator:** Usual care	a. QoL b. ADL	**Authors conclude:** ☜ a/b **Contributing studies**: a = 4 RCTs, b = 4 RCTs **Synthesis type**: Narrative **Quality of included studies:** Fair: 2 'strong'/2 'moderate' studies	**Reviewers conclude**: ☜a/b Reviewers concur with authors' conclusion that 'Patients ... receiving formal primary care-based follow-up did not show any gains in physical function ... or quality of life when compared with those who did not'
2	Chatterton (2010)	LTC – Dementia	**Intervention:** Music therapy sessions including live singing **Comparator:** Not stated	Social participation	**Authors conclude**: 👍 **Contributing studies**: 1 nRCT **Synthesis type**: Narrative **Quality of included studies:** Not assessed	**Reviewers conclude**: ? Only a single nRCT measuring this outcome was included and its quality was not assessed – thus the reviewers feel that the evidence is inconclusive

Review	Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3 Vasse (2010)	LTC – Dementia (institution based)	**Intervention**: Set time structured communication interventions e.g. walking and talking, life review. **Comparator**: Usual activities, or conversation during an unstructured activity	Social participation	**Authors conclude**: 👍 **Contributing studies**: 7 RCTs, 3 CTs **Synthesis type**: Narrative/meta-analysis (5 RCTs) **Quality of included studies:** Poor: 'methodological quality of the studies was generally poor'	**Reviewers conclude**: ☜ Majority of studies (8/10) show no effect of interventions on communication. The meta-analysis of 5 RCTs shows no evidence of effect. Authors seem to focus on 2 studies that did demonstrate positive effect

3.3 Social care interventions for delaying and reducing the need for support (prevention)

A total of 25 systematic reviews were found that contained evidence on the impact of social care interventions on preventing and reducing the need for further care and support. The most common focus of review-level literature was found to be the prevention of depression and poor mental health (19 reviews). There is also a focus in the literature on the prevention of falls among older people (5 reviews), and on reducing the need for services (4 reviews). The evidence on delaying and reducing the need for support fell into three distinct domains; the prevention of depression and poor mental health, the prevention of falls and reducing the need for services. An explanation of how we classified domains within outcomes is provided in Box 2 p. 7. Most of the reviews focus on populations with long-term conditions (LTC), particularly when this is in relation to the prevention of poor mental health. Appendix 3 provides an overview of the characteristics of all reviews with prevention evidence.

3.3.1 Social care interventions for preventing depression and poor mental health

The prevention of poor mental health was examined in almost four-fifths of the reviews that assessed prevention outcomes (19 out of 25). Only four reviews had a mental health outcome as their primary focus (Bradt et al. 2011; Lin et al. 2011; Salter et al. 2010; Yohannes and Caton 2010). In the remainder, a mental health measurement was a secondary outcome, or was one variable among many. Three of these 19 reviews (Foster et al. 2007; Legg et al. 2007; Montgomery et al. 2008) also measured reducing and delaying the need for service use (see Section 3.3.3).

The 19 reviews assessed the impact of seven different types of social care intervention on mental health. Reviews on physical activity, occupational therapy and on lay or peer support were the most common. In terms of population, the vast majority focused on people with LTCs (17 reviews), predominantly people with pain and arthritis (5 reviews), people with dementia (3 reviews) or people who had had a stroke (3 reviews). Of the remaining two reviews, one focused on preventing depression in older people (through personal assistance); the other examined negative mood in people with schizophrenia (who received life-skills training). Table 3.3.1a provides an overview of the evidence on preventing depression and poor mental health; summaries of each of the 19 reviews are provided in tables throughout the section.

Table 3.3.1a: Overview of evidence on preventing depression and poor mental health

Number of contributing reviews	**19**
Interventions	1. Physical activity (7 reviews) 2. Lay/peer support (3 reviews) 3. Occupational therapy (5 reviews) 4. Case management (1 review) 5. Social support (1 review) 6. Personal assistance (1 review) 7. Alternative therapies (1 review)

Populations	LTC (17 reviews); Older people (1 review); Mental health – schizophrenia (1 review)
Summary of evidence	• Physical activity can reduce depression among people with LTCs according to evidence from three meta-analyses and two narrative reviews. Of the remaining two reviews one found no evidence of difference and one found insufficient evidence • Mixed evidence was found for occupational therapy. One meta-analysis showed enriched group cognitive stimulation for people with Alzheimer's to be effective. One review on people who had had a stroke showed no evidence of difference between groups. Limited evidence in three other reviews was inconclusive • Peer/lay support for people with LTCs– examined in three reviews – was found to be effective for preventing depression, anxiety and health distress, but no significant difference was found between peer support and comparison groups for psychological well-being or psychological distress • Single reviews of care co-ordinator case management and social support (all post-stroke) found no evidence of difference between these interventions and usual care on mental health outcomes • Evidence on mental health outcomes for all other interventions was inconclusive

Physical activity interventions for preventing depression and poor mental health

- Seven reviews examined the effects of physical activity interventions on mental health outcomes among participants with LTCs conditions – arthritis or chronic pain (3 reviews), cancer (2 reviews) dementia (1 review) and HIV (1 review).
    - The authors of three meta-analytic reviews involving a total of 27 different RCTs concluded that physical activity (aerobic exercise/yoga) is effective for preventing depression among people with chronic pain, cancer and HIV.
    - Two narrative syntheses also found evidence that physical activity may prevent depression (in people with arthritis) but they were more cautious in their conclusions; one review on tai chi found limited available evidence (2 low-quality studies), another looking at a range of physical activity interventions found a significant positive impact in only four of seven studies.
    - No evidence of difference between intervention and control groups was found in just one of the seven physical activity reviews. This evidence on dance therapy for cancer patients is based on just two studies; the reviewers feel that this evidence should be regarded as tentative.
    - The seventh physical activity review found insufficient evidence to support a conclusion.

The meta-analytic review by Hauser and colleagues (2010) examined the impact of aerobic exercise interventions on the outcome of depression – 'depressed mood' – among people suffering from chronic pain. Included studies examined a variety of aerobic exercise interventions, including cycling, walking, aquatic jogging, games, dance and rhythmic or boxing movements. Programmes ranged from under seven weeks to over twelve weeks in duration and were compared to either treatment as usual, another active therapy or attention control. Statistical meta-analysis of 17 RCTs of variable quality showed a small but statistically significant reduction in depression when compared with controls. The authors also noted that positive effects of aerobic exercise on depressed mood may persist over time as they could 'be detected at latest follow-up' (median 26 weeks). Although the authors were explicit that the quality of included studies was variable, all included studies were RCTs and they were of a sufficiently large number to suggest that the findings are robust.

A positive impact of aerobic exercise on mental health was also found for people living with HIV in the meta-analysis by O'Brien and colleagues (2010). The review included two RCTs with measures for depression, which when pooled showed a significant positive impact of aerobic exercise when compared to groups receiving no intervention (waitlist control). Interventions involved either the use of a stationary bike alone, or combination of walking/jogging on a treadmill plus a stationary bike, stair stepper or cross-country machine. One intervention lasted for five weeks, the other for 12 weeks. The quality of the RCTs was judged by authors as fair, but because of the limited number of included studies, the reviewers concur with the authors that the positive findings should be interpreted 'cautiously'.

A review of yoga intervention studies for people with cancer by Lin and colleagues (2011) also demonstrated a significant positive impact of physical activity on mental health. Meta-analysis revealed significantly better outcomes for yoga groups for depression (8 RCTs $p = 0.002$), anxiety (8 RCTs $p = 0.009$) and distress (2 RCTs $p = 0.003$). Controls involved either supportive counselling or the opportunity to take part in a yoga programme after the study ended. Yoga programmes were predominantly delivered in a group format and involved combinations of postures, breathing techniques and meditation or relaxation techniques. Intervention duration was mostly between six and eight weeks; one study assessed a 24-week programme. All included studies were RCTs, and although the authors suggest that their overall quality was mixed, they acknowledge that the nature of the intervention prevented studies from receiving maximum quality rating. This fact and the large number of studies meta-analysed suggest that the findings are robust.

Two narrative syntheses, both focusing on people with arthritis (Yohannes and Caton 2010; Lee et al. 2007) also found evidence of a positive impact of physical activity on depression. Lee and colleagues (2007) compared tai chi (deep breathing and relaxation with slow and gentle movements) to education plus stretching exercise or usual activity. Whilst the review found evidence of a positive impact on mental health from two RCTs which measured depression and mood, the authors concluded that due to the low quality of the included studies, these findings were 'not convincing' (p.1560). The review by Yohannes and colleagues (2010) examined a range of physical activity interventions, including tai chi, aquatic exercise, balance exercise, strength training and home-based exercise programmes, ranging from eight weeks to two years. The review included seven RCTs but did not examine their methodological quality. Of the included studies, four showed a significant positive impact on depression when compared to controls, a fifth showed a non-significant positive impact. The authors suggest that the findings are thus 'promising' (p.649) rather than conclusive, and that the type of exercise may be an important factor.

No evidence of difference between groups was found in only one of the seven physical activity reviews. Bradt (2011) and colleagues reviewed the effectiveness of dance and movement therapy on psychological outcomes such as mood, distress and mental health in cancer patients. Two RCTs contributed to the evidence base; although data from the individual studies indicated a positive difference on intervention compared control groups, these differences were not statistically significant. The authors reported that it was not clear whether this was because of the ineffectiveness of the treatment or the limited power of the trials. Although the evidence was from high-quality studies, there are limitations to the evidence base because only two relevant studies were found. Thus, the reviewers cautiously concur with the authors that the use of dance therapy is not indicated for the improvement of mental health outcomes in patients with cancer.

The seventh physical activity review was inconclusive. Forbes (2008) and colleagues examined the impact of physical activities on depression amongst people with dementia. The evidence from one high-quality RCT indicated no statistically significant difference between those receiving a physical activity intervention and those receiving usual care. Similarly, non-significant results were found for depression at follow-up at six and twelve months. The intervention consisted twice weekly one-hour sessions including aerobic (walking), strength (lower extremity), flexibility and balance training, over the course of one year. However, the reviewers agree with the authors' conclusions that there is currently insufficient evidence of the benefit of physical exercise for people with dementia.

Though dance therapy for cancer patients is not supported, collectively these seven reviews provide fairly strong evidence to suggest that physical activity can prevent depression among people with LTCs. Research to assess the potential of physical activity to prevent poor mental health in other social care populations is therefore warranted. The magnitude of effect of different physical activity interventions is explored in Chapter 4.

Table 3.3.1b: Summary of reviews on physical activity interventions for preventing depression and poor mental health

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Bradt (2011)	LTC – Cancer	**Intervention:** Dance therapy **Comparator:** Usual care	Mood/ distress/ mental health	**Authors conclude:** ☜ **Contributing studies**: 2 RCTs* **Synthesis type**: Narrative **Quality of included studies:** High *1 study included in Floyd review	**Reviewers conclude:** ☜ Evidence base is limited, but reviewers concur with authors' cautious conclusion that evidence does not support the use of dance therapy for cancer patients
2	Forbes (2008)	LTC – Dementia	**Intervention:** Physical activity **Comparator:** Usual care	Depression	**Authors conclude: ?** **Contributing studies:** 1 RCT **Synthesis type:** Meta-analysis **Quality of included studies:** High	**Reviewers conclude:** ? Non-significant results for depression at both 6 and 9 months. Agree with authors – insufficient evidence of effectiveness of physical activity on depression in older adults with dementia
3	Hauser (2010)	LTC – Pain	**Intervention:** Aerobic exercise Comparator: Treatment as usual/another active therapy/attention control	'Depressed mood'	**Authors conclude:** 👍 **Contributing studies:** 17 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: 'only two studies fulfilled all predefined criteria of internal and external validity'	Reviewers conclude: 👍 Quality of included studies is variable – but findings are based on pooled evidence from a very large number of RCTs (n=17)

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
4	Lee (2007)	LTC – Arthritis	**Intervention:** Tai chi **Comparator:** Education plus stretching exercise/usual activity	Depression/ Mood	**Authors conclude**: ? **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Low: 'methodological quality of the included RCTs was low'	**Reviewers conclude**: ? Based on 2 small, low-quality RCTs. Concur with authors that 'evidence is not convincing'
5	Lin (2011)	LTC – Cancer	**Intervention:** Yoga **Comparator:** Waitlist control groups or supportive therapy groups	a. Depression b. Anxiety c. Distress	**Authors conclude:** 👍 (a, b and c) **Contributing studies**: a = 8 RCTs; b = 8 RCTs; c = 2 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: quality scores ranged from 4-7 out of 10	**Reviewers conclude**: 👍(a, b and c) Pooled evidence from large number of RCTs (n=8). Mixed quality – but authors note that the nature of intervention meant that 8/10 was highest possible quality rating RCTs could achieve

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
6	O'Brien (2010)	LTC – HIV	**Intervention:** Aerobic exercise **Comparator:** Waitlist/control	Depression/ dejection	**Authors conclude:**  **Contributing studies**: 2 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Fair: 1 study met 2/4 criteria, the other met 3/4. Results 'limited by small sample sizes and high withdrawal rates.'	**Reviewers conclude**:  Concur with authors that results are positive but due to limitations 'should be interpreted cautiously'
7	Yohan-nes (2010)	LTC – Arthritis	**Intervention:** Range of physical activity types **Comparator:** Waitlist/ control/ other exercise	Depression	**Authors conclude:**  **Contributing studies**: 7 RCTs **Synthesis type**: Narrative synthesis **Quality of included studies:** Not assessed	**Reviewers conclude**:  Though not quality assessed 4/7 studies = ▫ and a 5th found non-significant positive findings

Occupational therapy for preventing depression and poor mental health

- Five reviews examined a range of different occupational therapy (OT) interventions:
    - 'No evidence of difference' was the ultimate conclusion of a review on OT for people who had had a stroke. Two studies measuring depression and mood found OT to have a positive impact when compared with no routine input but this finding was 'non-significant'.
    - One review found evidence of significant positive effects of OT involving cognitive stimulation for people with Alzheimer's. A lack of evidence was found for the impact of another type OT intervention on mental health outcomes in this review.
    - Inconclusive evidence was also found for OT interventions in the remaining three reviews; one on OT interventions for people with Alzheimer's, one on OT interventions for people with chronic conditions and one on life-skills interventions for people with schizophrenia.

Legg (2007) and colleagues examined the effects of OT on activities of daily living among people who have had a stroke. Two 'generally good' quality trials showed a non-significant benefit in patients' mood in the intervention groups. OT interventions included rehabilitation in the home, teaching new skills and developing independence in activities in daily living, compared with usual care. The interventions were provided over six to twelve months, with follow-up with patients after stroke. Although the provision of OT showed some positive effects on mood, this was not a significant finding.

Padilla and colleagues (2011) conducted a narrative analysis of the effectiveness of different forms of OT for people with Alzheimer's disease and related dementias. Evidence in this review comes from a single RCT which found no difference in levels of anxiety and depression between those receiving cognitive stimulation therapy and usual care. The intervention group had been provided with a 'reality orientation board' giving both personal and orientation information during group sessions to provide continuity between sessions. The control group was involved in usual activities without the board. Although the single study providing evidence on this outcome was of high quality, reviewers feel that further evidence is needed to draw conclusions about the effectiveness of cognitive stimulation therapy for improving anxiety or depression in older adults with Alzheimer's or related dementias.

In their narrative analysis of the effectiveness of OT on mental health outcomes for people with a variety of long-term chronic conditions, Hand (2011) and colleagues found evidence of a positive effect. They reported the findings of two RCTs, which found improved scores on the mental health components of SF-36. In one study, the intervention was a multidisciplinary job retention programme for people with rheumatoid arthritis (RA). The intervention in the other was a multidisciplinary rehabilitation programme for people with chronic obstructive pulmonary disease (COPD). Participants in the latter study did not maintain improvements at year one follow-up. The authors therefore conclude that OT multidisciplinary interventions can improve psychological health of people with RA. However, reviewers had several concerns about this review. First, reviewers were left unclear as to the content of the interventions; the review appeared to examine a range of interventions, but gave little detail about each one evaluated. Second, the authors did not report statistical data to verify their conclusions; a supplemental table provided data for the intervention group

only; it did not provide data on differences between the intervention and control groups. Third, the quality of the included studies was poor; the authors acknowledged that 'most studies included had methodological limitations'. Thus, the reviewers do not feel confident to regard the findings as conclusive evidence.

Although primarily interested in the impact on quality of life, Olazaran (2010) and colleagues reviewed the effect of non-pharmacological interventions on the mental health ('mood') of people with Alzheimer's disease. Two intervention types were examined in relation to mental health outcomes. For the first intervention type, enriched group cognitive stimulation, three RCTs were examined. The results from two RCTs showed statistically significant improvements after one year of treatment. A third trial showed a neutral result. However, the pooled results of the three trials showed a positive result. For the second intervention type, physical exercise and behaviour management, a single RCT showed statistically significant positive effects at three months. The effects were not retained at further follow-up. The intervention involved a six-month individualised programme of exercise and caregivers being involved in identifying pleasurable activities and promoting positive interactions. The authors stated that the overall quality of the RCTs included in the review was low. The reviewers conclude that the meta-analytic evidence showing a positive impact of enriched group cognitive stimulation is sound. However, they concur with the authors that due to a lack of studies, the exercise and behaviour management intervention cannot currently be recommended.

Tungpunkom and colleagues (2012) reviewed the effects of life skills programmes for people with chronic mental health problems. They identified one RCT that measured programme impact on mental state (Positive and Negative Syndromes Scale) of people with schizophrenia and schizoaffective disorder. The programme of 24 semi-weekly 120-minute lessons covered medication management, social skills, communication skills, organisation and planning, transportation and financial management. The authors found no evidence of a difference between the life skills programme and either standard care, or a support group, but concluded that the one, problematic, trial found provided only 'very low' quality evidence (pp. 3 and 21).

Strong evidence of a positive impact of OT interventions on mental health is only available from one of the five OT reviews (Olazaran et al. 2010). However, evidence from two other reviews (Hand et al. 2011; Legg et al. 2007) suggests that more research might substantiate a positive finding.

Table 3.3.1c: Summary of reviews on occupational therapy interventions for preventing depression and poor mental health

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
8	Hand (2011)	LTC – Various	**Intervention:** Community occupational therapy **Comparator:** Usual care/ waitlist/ no intervention	Psychological health	**Authors conclude:**  **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Poor: 'Most studies had methodological limitations'	**Reviewers conclude**: ? Reviewers are concerned about the quality of the studies, the relevance of the evidence for OT, and that no statistical information is provided to support the authors' claims about study findings
9	Legg (2007)	LTC – Stroke	**Intervention**: Occupational therapy focused on activities of daily living **Comparator**: No routine input	Depression/ Mood	**Authors conclude:**  **Contributing studies**: 2 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Good: quality of included trials 'generally good'	**Reviewers conclude**:  Positive but non-significant impact from 'good' quality trials.

10	Olazaran (2010)	LTC – Dementia	**Intervention:** Non-pharmacological therapies: a. Multi-component enriched group cognitive stimulation b. Exercise and behaviour management **Comparator:** Usual care	Mental health – 'Mood'	**Authors conclude:** a. 👍 b. **?** **Contributing studies: a.** 3 RCTs; b. 1 RCT **Synthesis type:** Meta-analysis **Quality of included studies:** Mixed: need for comprehensive coverage meant many low-quality RCTs were included	**Reviewers conclude:** a. 👍 b. **?** Reviewers conclude that the meta-analytic evidence on enriched group cognitive stimulation is sound. However, they concur with authors that due to a lack of studies, the exercise and behaviour management intervention cannot be recommended
11	Padilla (2011)	LTC – Dementia	**Intervention:** Cognitive stimulation therapy – 'orientation board' **Comparator**: Usual activities	Depression; anxiety	**Authors conclude:** ☜ **Contributing studies:** 1 RCT **Synthesis type**: Narrative **Quality of included studies:** High: the single RCT was identified as the only included study in this review which used blinding	**Reviewers conclude: ?** Although the single study providing evidence on this outcome was of high quality, reviewers feel that further evidence is needed to draw conclusions

12	Tung-punkom (2012)	Mental Health	**Intervention**: Group or individual life skills training; e.g. financial/ interpersonal/ domestic life skills **Comparator**: Peer support/OT/standard care	Mental state	**Authors conclude:** ? **Contributing studies**: 1 RCT **Synthesis type**: Narrative **Quality of included studies:** Low: 'Using the GRADE scheme of evidence quality findings are judged to be based upon very low quality evidence'	**Reviewers conclude**: ? Only based on 1 'very low' quality study

Lay or peer support interventions for preventing depression and poor mental health

- Three reviews examined whether lay or peer support prevented poor mental health among people with a range of long-term conditions.

    - One review used meta-analysis to find a 'small but statistically significant effect' of lay-led self-management education programmes for preventing depression (6 RCTs) and anxiety (3 RCTs) among people with chronic conditions. Differences between the lay support intervention and control groups were not statistically significant for the outcome 'psychological well-being' (5 RCTs).
    - A significant positive impact on health distress was found in the same review through a meta-analysis of four RCTs. Two of these were also included in a narrative review of peer support for people with chronic pain which concluded that evidence was 'limited but promising'.
    - The third review, a narrative synthesis containing three RCTs measuring the outcome psychological distress, found no significant difference between group face-to-face peer support interventions for people with cancer and no intervention.

The review by Foster and colleagues (2007) examined the mental health outcomes of nine studies on lay-led self-management education for people with chronic conditions. The self-management interventions led by lay leaders included one-to-one and group programmes, and could be disease-specific or generalised chronic disease/expert patient programmes. The interventions were structured programmes that were primarily educational; the majority of the course content was delivered by lay people and the lay leader acted as a peer support or role model. The included studies were RCTs of mixed quality; some were high quality, some were fair quality and others were 'unclear'. Four separate meta-analyses on mental health outcomes were conducted: depression (6 RCTs), anxiety (3 RCTs) psychological well-being (5 RCTs) and health distress (4 RCTs). Meta-analysis showed that lay-led self-management programmes had a significantly greater positive impact than usual care or no intervention on depression, anxiety and health distress. It also found a positive impact on psychological well-being, but it was 'not statistically or clinically significant'.

The narrative reviews by Bender et al. (2011) and Hoey et al. (2008) focused specifically on peer support and were more cautious in their conclusions. However, the two RCTs measuring the outcome of health distress in the Bender review were two of the four studies showing a significant positive impact on health distress in the Foster review described above, and so this review is not discussed further.

The Hoey review identified three high-quality RCTs that measured psychological distress and concluded that there was 'no significant effect' of group face-to-face peer support for people with cancer compared with usual care, professional support or waitlist control.

Though the evidence base is less clear cut than for physical activity, strong meta-analytic evidence from the Foster review indicates that peer-support for people with LTCs may prevent depression and anxiety. Again, research evidence on peer support for other social care populations is needed.

Table 3.3.1d: Summary of reviews on lay/peer support interventions for preventing depression and poor mental health

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
13	Bender (2011)	LTC – Pain	**Intervention:** Inter-net-based peer support **Comparator:** Usual care	Health distress	**Authors conclude:** ? **Contributing studies**: 2 RCTs* **Synthesis type**: Narrative **Quality of included studies:** Low: 'studies received low quality scores'	**Reviewers conclude**: ? Reviewers concur – evidence 'limited but promising' *These 2 studies are also in the meta-analysis by Foster
14	Foster (2007)	LTC – Chronic conditions	**Intervention:** lay-led self-management education programmes **Comparator:** No intervention/usual care	a. Depression b. Anxiety c. Psycho-logical well-being d. health distress	**Authors conclude:** 👍 – a, b and d ☜ – c **Contributing studies**: a = 6 RCTs; b = 3 RCTs; c = 5 RCTs; d = 4 RCTs* **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: 2 = high, 3= fair, others 'unclear'	**Reviewers conclude**: 👍 – a, b and d ☜ – c Large numbers of studies. 'Small statistically significant' effect on depression, anxiety and health distress.* *2 of the 4 health distress studies are in Bender review
15	Hoey (2008)	LTC – Cancer	**Intervention:** Grou p peer support – face-to-face or internet-based **Comparator:** Usual care, professional support, waitlist	Psycho-logical distress	**Authors conclude:** ☜ **Contributing studies**: 3 RCTs **Synthesis type**: Narrative **Quality of included studies:** Good: scored 11/13 on quality scale	**Reviewers conclude**: ☜ Only 3 studies but high quality

Other social care interventions for preventing depression and poor mental health

- The remaining four interventions were each assessed by a single review only. Evidence from these reviews was inconclusive or showed no evidence of difference between the intervention and control groups.

    - The conclusions of one review were limited by a lack of evidence. A review on **personal assistance** for older people found evidence from two non-randomised controlled trials, both with a limited risk of bias but concluded that further evidence was needed about impact on mental health outcomes.
    - Conflicting evidence in three reviews led the authors to conclude that evidence was inconclusive for **social support** or **care co-ordinator case management after stroke** and **for alternative therapies for chronic pain** (biofield therapies). These reviews measured mood, depression, anxiety and distress. The authors found evidence of a difference in anxiety and negative mood in only half of the studies of biofield therapies.
    - However, as no evidence of difference was found between interventions and usual care in the vast majority of studies in the reviews on **case management** (7/8) and **social support** (5/6) reviewers conclude that these interventions are not effective for preventing poor mental health.

Montgomery (2008) and colleagues carried out a narrative synthesis of the impact of personal assistance on the mental health of older people (65+) with impairments living in the community. They identify two non-randomised controlled trials that found that data on mental health outcomes were limited. Differences in personal adjustment and depressive symptoms were not significant, while differences in emotional health favoured the intervention group. Personal assistance was defined by the authors as at least 20 hours of paid individualised support per week over an indefinite period. This was compared with other forms of care such as nursing home, 'cluster' and usual care. There was some risk of bias in these non-randomised controlled trials, but this was of limited concern. The authors concluded that more data were required to draw conclusions about the effects of personal assistance on mental health. Due to the small number of non-randomised studies on which these conclusions are based, we agree that further evidence is needed.

In their narrative review, Salter et al. (2010) and colleagues examined the impact of social support interventions on psychological distress, mood status or depression in people who had suffered a stroke. Social support interventions included visits from family support workers giving advice or reassurance and case co-ordination given to individuals within the first 6-7 weeks following the stroke over a period ranging from 6 weeks to 12 months. This was compared with usual care. All but one of eight included RCTs found no evidence of difference between participants receiving social support and those receiving usual care. The single study which showed a positive impact was the only one of the eight which did not conceal allocation, which the authors noted as a potential weakness. The authors concluded that more high-quality research was needed to establish whether social support has a positive effect on levels of depression, distress and mood status. However, overall the stronger evidence suggests no evidence of difference between social support and usual post-stroke care.

In their narrative analysis of the effectiveness of various models of after-care following stroke, Allison et al. (2011) and colleagues found that only one small weak paper out of six showed that patients receiving the care co-ordinator case management intervention were significantly less depressed than those in the control group. None of the other

studies showed a difference between the intervention and control (usual care) groups. The six RCTs evaluated interventions provided by stroke support workers, care coordinators or case managers to a representative sample of people after stroke. Interventions were provided to stroke patients after discharge from hospital but it is not clear how long after discharge the intervention was begun. Interventions lasted from three to nine months with final follow-up at the end of the intervention. The methodological quality of the studies was rated as variable with three rated as 'strong', two as 'moderate' and one as 'weak'. Whilst the authors felt that more evidence was needed, the reviewers feel confident to conclude that the findings of this review do not support the use of stroke support workers, care coordinators or case managers for people following stroke.

Jain and Mills (2010) undertook a narrative synthesis to determine the effects of biofield therapies for populations with LTCs. Biofield therapies are a range of techniques that claim to use subtle energy to stimulate the body's own healing process. Reiki, therapeutic touch, and healing touch are examples of such approaches. Eight RCTs (of which six were high quality) compared biofield therapies with a placebo to examine the impact on mental health outcomes such as depression, anxiety and negative mood. These studies focused on populations with pain-related disorders. Four of the studies (two RCTs, two non-randomised trials) found a reduction in negative mood and anxiety whilst four high-quality RCTs found no change in these outcomes. The authors concluded that the current evidence was conflicting and further research was needed.

Unlike physical activity and peer-led support, only one review is available for each of these four interventions and it is certainly clear that more evidence is needed to assess whether personal assistance for older people is effective for preventing or reducing depression. Sufficient evidence of reasonable quality is available for three interventions – care-co-ordinator case management, social support and biofield therapies; however evidence on biofield therapies for people with chronic pain is inconclusive and evidence for the other interventions does not suggest that they are any more effective than usual care for preventing depression among people who have had a stroke.

Table 3.3.1e: Summary of reviews on 'other' interventions for preventing depression and poor mental health

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
16	Allison (2011)	LTC – Stroke	**Intervention:** Primary care based follow-up after stroke, involving both a healthcare and social-care element **Comparator:** Usual care	Mood	**Authors conclude:** ? **Contributing studies**: 6 RCTs **Synthesis type**: Narrative **Quality of included studies:** Mixed: 5 'strong'/'moderate' studies, 1 'weak' study	**Reviewers conclude**: ☜ Only 1 small weak paper out of six showed positive impact; the remaining 5, which were larger and higher quality, showed no evidence of difference
17	Jain (2009)	LTC – Pain	**Intervention:** Biofield therapies – therapeutic touch, healing touch and Reiki **Comparator:** Mock or placebo-controlled treatment group	Mood variables (depression, anxiety, negative mood)	Authors conclude: ? Contributing studies: 6 RCTs, 2 nRCTs Synthesis type: Narrative **Quality of included studies:** Fair: 'Studies overall are of medium quality'	Reviewers conclude: ? Of 8 studies, 4 found positive effects and 4 found no evidence of difference
18	Mont-gomery (2008)	Older people	**Intervention**: Personal assistance – ≥20 hrs/ week individualised support from a paid assistant **Comparator**: Any other form of care	Depressive symptoms Personal adjustment Emotional health	**Authors conclude:** ? **Contributing studies**: 2 nRCTs **Synthesis type**: Narrative **Quality of included studies:** Fair**:** Non-random studies had 'some risk of bias'	**Reviewers conclude**: ? Yes – few studies, non-randomised, with some risk of bias; further evidence needed

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
19	Salter (2010)	LTC – Stroke	**Intervention**: Social support – provide, create or enhance support (social, emotional, familial) for individuals with stroke **Comparator**: Usual care	Depression/ Distress/ Mood status	**Authors conclude:** ? **Contributing studies**: 8 RCTs **Synthesis type**: Narrative **Quality of included studies:** Fair: 'although all studies were RCTs of reasonable quality, blinded assessment appears to be problematic'	**Reviewers conclude**: ☜ The vast majority of studies (7 of 8) found no evidence of difference – all 7 used blinded allocation. Only one study found positive effects and it did not conceal allocation

3.3.2 Social care interventions for preventing falls

The prevention of falls among older people was the focus of a quarter of the reviews examining prevention outcomes (5 of 20 reviews). Unlike the majority of other prevention reviews which did not primarily focus on prevention outcomes, all five had the prevention of falls as their primary focus.

The reviews all focused on older people and assessed the impact of three different types of falls prevention interventions: home hazard modification, tai chi and hip protectors. Table 3.3.2a provides an overview of the evidence on falls prevention, and Table 3.3.2b provides a summary of each of the five reviews.

Table 3.3.2a: Overview of evidence on preventing falls

Number of contributing reviews	**5**
Interventions	1. Home hazard modification (2 reviews) 2. Tai chi (2 reviews) 3. Hip protectors (1 review)
Populations	People aged 65 or over
Summary of evidence	• Tai chi is effective for reducing falling among older adults living in the community or in care facilities according to evidence in two reviews containing high-quality evidence, though it may be harmful for frail older adults • Evidence on home hazard assessment and modification led by an occupational therapist for reducing falling among community-dwelling older adults was found to be inconclusive in two reviews • Hip protectors are effective for reducing hip fractures among elderly nursing home residents according to evidence in a single review

Tai chi for preventing falls among the elderly

- Two reviews evaluated the effects of tai chi on falls amongst older adults, either as a single intervention, or combined with exercise.

  - The authors of one meta-analytic review concluded that tai chi is effective for reducing falls among healthy older adults but may be harmful for frail older adults.
  - The other, narrative, review concluded that there was only weak evidence supporting the effectiveness of this intervention in reducing the number of falls in older adults, despite all six studies indicating positive effects and three having findings that were statistically significant.
  - The findings from the two reviews on tai chi were based upon 11 RCTs that were all judged to be of a high quality.

Two reviews examined the impact on falls of tai chi. This has been described as 'slow and continuous but highly choreographed movements that incorporate unilateral and bilateral weight shift as well as trunk and extremity rotation, deep diaphragmatic breathing and relaxation' (Leung et al. 2011 p. 41). Evidence was also contained in a third review (Forster 2009) comprising one high-quality trial. However, this study was also included in the review by Leung (2011) and so to avoid double counting, this evidence from the Forster (2009) review is not discussed further.

The meta-analytic review by Leung and colleagues (2011) found that tai chi was effective at reducing falls among healthy community and institution-based older people when compared to no exercise at both six months (2 RCTs) and 12 months (2 RCTs) following the intervention. When tai chi was compared with other exercise interventions, no significant between-group differences were found at any follow-up point (6 months 2 RCTs; 12 months 2 RCTS). They also found evidence of harm for vulnerable older people; one included study on institution-based frail and pre-frail elderly found that the 'risk of falls was significantly increased (hazard ratio: 2.95) for the frail subgroup'. The included studies were all of good quality, and intervention duration and intensity varied: 'They lasted from 10 weeks to 52 weeks, with frequencies varying from every 2 weeks to daily sessions'. The authors concluded that whilst 'proper screening for frailty' would be necessary, for healthy older adults 'Tai Chi is shown to reduce falls in the absence of any other intervention'.

The narrative review by Harling and Simpson (2008) examined the impact of tai chi as a single intervention and when combined with exercise among community and institution-based older adults (mean age 78 years). Comparison groups included other exercise (stretching, motor placebo exercises such as ball games, progressive strength training and computerised balance training) or no exercise (advice and education). Programme intensity and duration varied; the number of tai chi sessions ranged from one to seven, and intervention duration ranged from eight to 104 weeks. The authors noted that the heterogeneity of the intervention, population and outcome measures precluded statistical meta-analysis. Although the authors found that of the six included RCTs, 'three high-quality studies demonstrate statistically significant reductions in rate of falls, and two demonstrate clinically relevant results', they are cautious in their ultimate conclusions, describing the evidence as 'weak'. Moreover, two of the studies with statistically significant results were also included in the Leung meta-analysis described above. Thus, this review can be assessed as adding evidence of just one study showing statistically significant positive results of tai chi for reducing falls.

Overall, the reviewers conclude that there is adequate evidence in the two reviews to suggest that tai chi is effective for reducing falls among healthy older adults.

Home-hazard assessment and modification for preventing falls among the elderly

- Two reviews assessed the impact of **home-hazard assessment and modification** interventions on fall-related outcomes in community-dwelling older adults.
    - The authors of **one narrative review cautiously concluded** that this intervention had a **positive impact** on the **number of falls;** however this conclusion was based on just two low quality studies.
    - The authors of a **second, meta-analytic review** found **that evidence was inconclusive**. Only one of three RCTs found a statistically significant positive impact.
    - Both reviews included only RCTs, but, when they reported on study quality, they found this to be limited.

Costello et al. (2008) conducted a narrative analysis of RCTs and found two which were social-care delivered home-hazard assessment and modification interventions. Modifications included removal of obstructions (e.g. mats), assistive devices (grab bars, shower seats) and education (advice on footwear, how to live more safely, fall risks, instruction in using assistive devices). The studies measured the number of falls in 12 months; both RCTs 'demonstrated a significant improvement in falls outcomes using a home assessment with modifications … for individuals at high risk for falling'. The studies which focused on community dwelling older adults were not quality assessed. The authors also did not describe the studies' comparison conditions. The authors concluded, however, that home hazard assessment and modification delivered by an OT may be beneficial in a 'targeted group of elderly adults at high risk for falls'. Due to the low quality of included studies the reviewers feel the evidence is inconclusive.

The other review on this outcome (Michael et al. 2010) was a meta-analysis of RCTs. It identified three trials (none of which were included in the Costello et al. review). All three compared in-home assessment with modification of hazards (e.g. nonslip tape for rugs and steps) and provision assistive devices (e.g. grab bars) with usual care or a social control. Two of the three interventions also included behavioural counselling of intervention participants. The three trials were described as 'fair quality'. Statistical meta-analysis revealed that the risk of falling for the intervention group was reduced by 7 percent (to 41 percent) although authors did not make clear whether this finding was statistically significant. The authors implied that overall there was no evidence of difference between intervention and control groups, as they noted that only one trial 'reported a statistically significant beneficial effect on risk for falling compared with control participants'. Reviewers feel that the lack of clarity about these findings renders this evidence inconclusive.

In summary, the evidence across the two reviews comprises three RCTs which showed a statistically significant positive impact of home-hazard interventions for preventing falls, and two RCTs which did not find a significant positive impact. Thus, the evidence suggests that such interventions may be effective, but that more evidence is needed.

Hip protectors for preventing hip fracture among the elderly

- A single review evaluated the effects of double-sided, hard-shell hip protectors on hip fractures in older people living in nursing homes.
    - The findings of the review on double-sided hip protectors were based upon a meta-analysis of five RCTs.
    - The authors described limitations in the quality of some studies.
    - They concluded that the hip protectors significantly reduced hip fractures.

The last review in the falls prevention set (Sawka et al. 2010) focused on the use of two-sided hard-shell hip protectors to prevent hip fracture as a result of falls among elderly nursing home residents. This meta-analytic review included five fair-quality RCTs, and found that control group participants receiving no intervention (usual care) were two and a half times more likely to sustain a hip fracture than those wearing the hip protectors (odds ratio 0.40 (95% credibility interval 0.27, 0.56)).

Though evidence is not available from multiple reviews, this review includes a large number of fair-quality RCTs; reviewers therefore feel the evidence is fairly conclusive that hip protectors are effective for preventing hip fracture among older people.

Table 3.3.2b: Summary of reviews on social care interventions for preventing falls

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Harling (2008)	Older adults living in the community and in care facilities **Mean age**: 78 years	**Intervention:** Tai chi – as a single intervention and when combined with exercise **Comparator:** Either advice/education or other exercise (e.g. stretching, balance training)	Number of falls	**Authors conclude**:  **Contributing studies**: 6 RCTs **Synthesis type**: Narrative **Quality of included studies:** Good: All studies scored 6 or 7 points out of a possible 9	**Reviewers conclude**:  Reviewers concur with the authors: 'There is weak evidence supporting the effectiveness of tai chi in reducing the number of falls in older adults'. While all 6 studies indicated positive effects, only 3 found statistically significant effects
2	Costello (2008)	Community-dwelling older adults **Age**: >65	**Intervention:** Home -hazard assessment with modifications. OT delivered - modifications included removal of rugs, installation of safety devices and education, e.g. advice on footwear, fall risks. **Comparator:** Not specified	Number of falls Number of fallers	**Authors conclude**: ? **Contributing studies**: 2 RCTs **Synthesis type**: Narrative **Quality of included studies:** Not assessed	**Reviewers conclude**: ? Two studies demonstrated a significant positive improvement in falls. Authors conclude: 'may be beneficial' – reviewers concur with this cautious statement as this review does not discuss the quality of included studies

Review	Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3 Leung (2011)	Healthy and frail older adults living in the community and in care facilities **Age:** >65	Intervention: Tai chi **Comparator:** No exercise or other exercise	Number of falls	**Authors conclude**: 👍- healthy adults; 👎- frail adults **Contributing studies**: 5 RCTs (2 in each of 4 meta-analyses) **Synthesis type**: Narrative/meta-analysis **Quality of included studies:** Good: All scored 6/10 or more on the quality assessment scale	**Reviewers conclude**: 👍- healthy adults; 👎- frail adults Tai chi showed either positive or neutral results among healthy elderly people. 2 meta-analyses (tai chi vs no treatment) found positive impacts at 26-week follow-up and at 52-week follow-up. No evidence of difference found when tai chi compared to other forms of exercise Results indicated that tai chi may be harmful for frail elderly participants

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
4	Michael (2010)	Community –dwelling older adults **Age**: >65	**Intervention:** Home -hazard modification (in-home assessment and hazard modification). Two interventions used behavioural counselling **Comparator:** Usual care or a social control.	Risk of falling Increased falls Number of fallers	**Authors conclude:**  **Contributing studies**: 3 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Fair: 'fair quality'	**Reviewers conclude**:  Risk for falling reduced by 7% to 41%, although only 1 of 3 home-hazard modification trial reported a statistically significant outcome No reports of adverse events
5	Sawka (2010)	Elderly nursing home residents **Age**: >65	**Intervention:** Two-sided hard-shell hip protectors **Comparator:** Usual care	Hip fractures	**Authors conclude**:  **Contributing studies**: 5 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Fair: 'relatively small size of some of the included studies … inherent methodologic limitations of many of the primary studies'	**Reviewers conclude**:  Meta-analysis revealed that participants in the control group were 2.5 times more likely to sustain a hip fracture than those wearing hip protectors However, due to concerns about the quality of the included studies reviewers concur with authors' cautious conclusions: 'Hip protectors reduced hip fractures in included studies … [but] more research is needed.'

3.3.3 Social care interventions for preventing the need for services

Preventing the need for services was investigated in only four of the 20 reviews assessing the impact of social care interventions on prevention outcomes. Health care use was one of three primary outcomes of interest in the review by Foster et al. (2007) and institutional care was a secondary outcome of interest in the remaining three reviews (Mayo-Wilson et al. 2008; Montgomery et al. 2008; Legg et al. 2007).

Two reviews assessed the impact of personal assistance for two different population groups: older people and people with physical and intellectual disabilities. The remaining two reviews were interested in people with long-term conditions. One review investigated the effectiveness of lay/peer support for people with a range of chronic conditions and the other review considered the efficacy of occupational therapy for people managing their daily lives after stroke.

Table 3.3.3a. below provides an overview of the evidence on preventing the need for service use, and Table 3.4b provides a summary of each of the four reviews.

Table 3.3.3a: Overview of evidence on preventing the need for services

Number of contributing reviews	**4**
Interventions	1. Personal assistance (2 reviews) 2. Lay/peer support (1 review) 3. Occupational therapy (1 review)
Populations	LTC (2 reviews); older people (1 review); physical and learning disabilities (1 review)
Summary of evidence	• Two reviews reported a lack of evidence on the impact of personal assistance in reducing the need for institutional care for older people or those with physical and learning disabilities • A single review on peer/lay support found no evidence of difference between interventions and usual care for preventing the need for services • There is inconclusive evidence from one review on the efficacy of occupational therapy for reducing the need for institutional care.

- Two reviews examined the effects of personal assistance interventions on reducing the need for institutional care. One review focused on participants with physical and intellectual disabilities; the other investigated older people in the community.

    - Both reviews reported findings from the same RCT. They concluded that there was a lack of evidence that personal assistance reduces long-term institutional care.

Two narrative syntheses focused on the effectiveness of personal assistance on reducing the need for services (Mayo-Wilson et al. 2008; Montgomery et al. 2008). Personal assistance consisted of individualised support for people living in the community, delivered by a paid assistant other than a healthcare professional, for at least 20 hours per week, provided for an indefinite period of time. Each review reported the average number of days intervention participants spent in hospital or a long-term care setting compared to those in the control group. Both reviews referred to evidence from the same study. There was no evidence of difference for people with physical and learning disabilities (111 days compared to 115 days) or older people (1.2 days in the community for every one day spent in the community by those in the control group).

The authors concluded that they 'did not find evidence that personal assistance reduces long-term institutional care'. The reviewers conclude that more evidence is needed.

Lay or peer support interventions for preventing service use

- One review examined whether lay or peer support reduced the need for medical care for people with a range of LTCs.
    - The authors conducted two meta-analyses but did not find a 'significant effect' of lay-led self-management education programmes for reducing the number of visits to the physician /general practitioner (9 RCTs) or number of days/nights spent in hospital, including visits to accident and emergency (6 RCTs) among people with chronic conditions.

The use of health care services was examined in the review by Foster and colleagues (2007). They included nine studies on lay-led self-management education for people with chronic conditions as described in Section 3.2. Two separate meta-analyses were conducted: one on the rate of physician/general practitioner visits (9 RCTs); and one on the number of days/nights spent in hospital (6 RCTs). Neither showed any significant difference between lay-led self-management interventions and comparison conditions. The included studies were RCTs of mixed quality, but given the large number of included RCTs, we feel that the results of the meta-analysis are robust.

Occupational therapy for preventing the need for services

- The single review on occupational therapy concluded that the data on institutional care was incomplete. Therefore the results from the pooled analysis were inconclusive and not reported in the review.

The review by Legg et al. (2007) was specifically interested in whether OT that focused on personal activities of daily living improved outcomes for patients after stroke. Components of the intervention included providing rehabilitation support at home, facilitating new skills and supporting people to develop the independence they need to take part in activities of daily living. This type of occupational therapy was compared with usual care. Although three high-quality RCTs were identified, it was difficult for the reviewers to disentangle outcomes relevant to institutional care from other outcomes (e.g. mortality), and the data available were not complete. Thus the final results were not reported and the evidence on the impact of occupational therapy for reducing the need for services remains inconclusive.

Table 3.3.3b: Summary of reviews on social care interventions for preventing the need for services

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Mayo-Wilson (2008)	Physical and learning disabilities	**Intervention:** Personal assistance – ≥20 hrs/ week individualised support from a paid assistant **Comparator:** Any other form of care	Institutional care	**Authors conclude**: ? **Contributing studies**: 1 RCT **Synthesis type**: Narrative **Quality of included studies:** Good**:** randomised study with 'some risk of bias'	**Reviewers conclude**: ? Reviewers concur with authors that there is limited and thus inconclusive evidence for this outcome provided by one study
2	Mont-gomery (2008)	Older people living in the community	**Intervention**: Personal assistance – >20 hrs/week individualised support from a paid assistant **Comparator**: Any other form of care	Institutional care	**Authors conclude:** ? **Contributing studies**: 1 RCT **Synthesis type**: Narrative **Quality of included studies:** Good**:** randomised study with 'some risk of bias'	**Reviewers conclude**: ? Reviewers concur with authors that there is limited and thus inconclusive evidence for this outcome provided by one study

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3	Foster (2007)	LTC – Chronic conditions	**Intervention:** lay-led self-management education programmes **Comparator:** No intervention/usual care	a. Physician/ GP visits b. Days/ nights spent in hospital including A&E	**Authors conclude:** ☜ – a and b **Contributing studies**: a = 9 RCTs; b = 6 RCTs **Synthesis type**: Meta-analysis **Quality of included studies:** Mixed: 1 = high, 2= fair, others 'unclear'	**Reviewers conclude**: ☜ – a and b Reviewers agree with the results of the meta-analysis that there 'there is no evidence of difference' for either outcome, based on a large number of studies
4	Legg (2007)	LTC – Stroke	**Intervention**: Occupational therapy focused on activities of daily living **Comparator**: No routine input	Institutional care	**Authors conclude:** ? **Contributing studies**: 3 RCTs **Synthesis type**: studies could not be pooled in a meta-analysis because of incomplete data **Quality of included studies:** Good: the quality of the included trials 'generally good'	**Reviewers conclude**: ? Reviewers agree that there is inconclusive evidence

3.4 Social care interventions for improving users satisfaction with services

Satisfaction with services was examined in just 4 of the 43 reviews examined in-depth. None of the reviews specifically or exclusively examined satisfaction with services as an outcome; all four examined a large number of outcome variables. All four reviews are described in other sections of the reports as they also examine prevention outcomes and quality of life outcomes (see sections 3.2 and 3.3 above). Satisfaction with services was described as a primary outcome in two of the reviews, whilst in a third it was described as a secondary outcome and in the fourth its relevance for the review was not described.

Three different types of social care intervention were examined in the four satisfaction reviews: personal assistance (2 reviews), OT (1 review), and case management (1 review). Appendix 4 provides an overview of the characteristics of all reviews with satisfaction evidence.

Table 3.4a: Overview of evidence on satisfaction with services

Number of contributing reviews	**4**
Interventions	1. Personal assistance (2 reviews) 2. Occupational therapy (1 review) 3. Case management (1 review)
Populations	Physical and learning disabilities (1 review); Older people (1 review); LTC – Stroke (2 reviews)
Summary of evidence	• Personal assistance improves satisfaction with services among older people (1 review), and may improve satisfaction among people with physical or learning disabilities (1 review) • Evidence on the impact of occupational therapy on satisfaction with services is inconclusive due to a lack of evidence (1 review) • Evidence does not support the use of post-stroke case management for improving satisfaction with services (1 review).

3.4.1 Personal assistance for improving satisfaction with services

- Two reviews examined the effects of personal assistance interventions on satisfaction with services.

    - Personal assistance is effective for increasing satisfaction with services among older people according to one narrative review that included four studies measuring satisfaction, one of which was an RCT.
    - A second narrative review on personal assistance found evidence from just two studies which suggested that it may also be effective for increasing satisfaction with services among people with physical or learning disabilities.

The narrative review by Montgomery and colleagues (2008) examined the impact of personal assistance interventions for older people with impairments on a range of outcomes, including satisfaction with services. Personal assistance was defined as individualised support for people living in the community who require assistance with daily living activities such as bathing, eating or getting around. Interventions were delivered by a paid assistant other than a healthcare professional, for at least 20 hours per week. Personal assistance was found to improve satisfaction with services when compared to any other form of care.

The second narrative review on personal assistance, conducted by the same team, examined the impact of personal assistance interventions on outcomes for people with impairments (Mayo-Wilson et al. 2008). They included two studies one of which was an RCT, but were more cautious in their conclusions compared to the previous review, acknowledging that 'research in the field is limited'. In addition, whilst the RCT (which was also a much larger study) showed that a significantly greater number of those receiving personal assistance were very satisfied with overall care arrangements compared to those receiving other types of care (68% vs 48% ($p<0.01$)) other results for satisfaction within this study and the other smaller nRCT study were not significant. Thus, the authors concluded that whilst personal assistance 'was generally preferred over other services', it was clear that 'some people prefer other services' and that as such personal assistance 'probably has some benefits for some recipients'.

The reviewers thus conclude that evidence on personal assistance indicates that it is effective for increasing satisfaction with services among older people, and may increase satisfaction with services among people with physical and learning disabilities.

3.4.2 Occupational therapy for improving satisfaction with services

- A single review examined whether occupational therapy improves satisfaction with services among people who had had a stroke.

    - Evidence about satisfaction with services in the narrative review on occupational therapy was available from 2 RCTs.
    - The authors found the evidence to be inconclusive as it was 'incomplete and only available from a few studies'.

The review by Legg and colleagues (2007) examined whether occupational therapy focusing on activities of daily living improved outcomes for patients after stroke. The intervention groups received rehabilitation support at home, facilitation of new skills and support to develop independence in activities of daily living. Comparison groups received usual care. However, authors concluded that evidence on the impact of occupational therapy on satisfaction with services remained inconclusive due to the small number of studies (2 RCTs with satisfaction results) and incomplete data. The direction of findings of the two included studies was not reported.

3.4.3 Case management for improving satisfaction with services

- A single narrative review examined whether there was greater satisfaction with case management for people recovering from stroke than with usual care.

    - Of four RCTs comparing social care-led case management to usual care, none found a significant difference between groups on overall satisfaction.

- The authors did suggest that case management may have had a positive impact on aspects of satisfaction relating to communication, but overall accepted that the evidence did not support the use of post-stroke case management interventions.

A single narrative review (Allison et al. 2011) examined whether people recovering from stroke whose post-hospital care was managed by a stroke support worker, care-coordinator or case manager were more satisfied with this service than those receiving usual care. The review examined the effectiveness of various models of after-care following stroke, and included four RCTs examining social-care-led case management interventions on satisfaction outcomes. Of the four included RCTs (two high quality and two moderate quality) none showed a significant difference between those receiving case management interventions and those receiving usual care for overall satisfaction.

The authors did, however, suggest that case management may have a positive impact on satisfaction with aspects of communication. They noted that two of the studies revealed differences in relation to subscales relating to listening to needs and receipt of information about stroke prevention. The reviewers, however, feel that this evidence should not be regarded as conclusive due to limitations: in only one of the two studies was the between-group difference found to be significant.

Overall, however, the authors conclude that case management is not effective on any of their measured outcomes: ‘the findings do not support the use of stroke support workers, care coordinators, or case managers working in the ways described in these studies to deliver the primary care-based health care and social-care review after stroke’.

Table 3.4b: Summary of reviews on social care interventions for supporting satisfaction with services

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
1	Allison (2011)	LTC – Stroke	**Intervention:** Primary care based case management follow-up after stroke, involving both a healthcare and social-care element **Comparator:** Usu al care	Patient satisfaction	**Authors conclude:** ☜General satisfaction/ 👍satisfaction with communication Contributing studies: 4 RCTs Synthesis type: Narrative Quality of included studies: Fair: 2 'strong'/2 'moderate' studies	**Reviewers conclude**: ☜general satisfaction/? Satisfaction with communication None of the studies showed a significant difference in overall satisfaction Differences were found in two studies for satisfaction sub-scales to do with communication, but in one this was not statistically significant
2	Legg (2007)	LTC – Stroke	**Intervention**: OT focused on activities of daily living **Comparator**: No routine input	Satisfaction with services	Authors conclude: ? Contributing studies: 2 RCTs **Synthesis type**: studies could not be pooled in a meta-analysis because of incomplete data **Quality of included studies:** Good: quality of included trials 'generally good'	Reviewers conclude: ? Reviewers agree with authors that the evidence is inconclusive

Review		Population	Interventions	Outcome measure(s)	Review findings on mental health	Reviewer agreement?
3	Mayo-Wilson (2008)	Physical and learning disabilities	**Intervention:** Personal assistance – ≥20 hrs/ week individualised support from a paid assistant **Comparator:** Any other form of care	Satisfaction with services	**Authors conclude**: **Contributing studies**: 1 RCT; 1nRCT **Synthesis type**: Narrative **Quality of included studies:** Fair**:** but 'low uptake and non-response raise questions about external validity of results'	**Reviewers conclude**: Reviewers agree with authors' cautious conclusions that personal assistance 'may' increase satisfaction for people with physical and learning disabilities
4	Mont-gomery (2008)	Older people	**Intervention**: Personal assistance – ≥20 hrs/week individualised support from a paid assistant **Comparator**: Any other form of care	Satisfaction with services	**Authors conclude:** **Contributing studies**: 1 RCT; 3 nRCTs **Synthesis type**: Narrative **Quality of included studies:** Fair**:** non-random studies had 'some risk of bias'	**Reviewers conclude**: Existing evidence suggests that personal assistance for older people is generally preferred over other services by consumers

3.5 Social care interventions for safeguarding vulnerable adults

A paucity of review-level evidence on interventions for safeguarding vulnerable adults was found. Of the 12 reviews identified for the mapping exercise, only seven were published in the last five years, and only one met all quality and relevance criteria. Within this single review (Lindbloom et al. 2007) only evidence from a single RCT was usable for the purpose of this review of reviews. Appendix 5 provides an overview of the characteristics of this review.

Table 3.5: Overview of evidence on satisfaction with services

Number of contributing reviews	**1**
Interventions	Educational programme for nursing home staff
Populations	Older people
Summary of evidence	• There is a severe lack of recent, high-quality review-level evidence on safeguarding for vulnerable adults • Limited evidence from a single RCT in a single review suggested that seminars when compared to written materials were more effective for teaching nursing home employees about managing elder abuse, and that trained staff showed a more positive attitude towards the elderly than untrained staff • All other identified safeguarding reviews published between 2000 and 2012 were found not to meet quality and relevance criteria.

3.5.1 Educational programmes for nursing home staff for safeguarding vulnerable adults

- A single review on elder mistreatment examined the effects of an educational programme for nursing home staff on safeguarding outcomes.

    - Evidence on this intervention comes from a single British RCT.
    - The limited evidence suggests that elder abuse management education programmes have a greater impact on knowledge when delivered to nursing home employees via a seminar rather than written materials.
    - The evidence also suggests that staff who have received such training show a more positive attitude towards residents than those who have not.

Usable evidence on safeguarding was available in just one review, a narrative synthesis on elder mistreatment. The majority of evidence contained in this review was from observational studies or case-series studies rather than evaluations of interventions. Moreover, of the four intervention studies included in this review, only one was explicitly described as a controlled trial. This single trial, a British RCT, examined an educational programme for nursing home staff. The RCT found that seminars appear to be more effective than written materials for educating nursing home employees about managing elder abuse. The study also found a more positive attitude towards elderly residents among staff who had been trained than those who had not.

As this evidence comes from a single RCT within a single review which did not assess the quality of included studies, the reviewers feel that the evidence is so limited that it should be regarded as inconclusive.

Overall, it is clear that review-level evidence on safeguarding for vulnerable adults is clearly lacking. Because of the severe dearth of evidence for this outcome, the reviewers decided to examine whether evidence from earlier reviews (those published between 2000 and 2006) contained any usable evidence. However these reviews, as well as the vast majority of post-2007 reviews on safeguarding, did not meet criteria for quality and relevance.

3.6 Evidence on cost and cost-effectiveness

Evidence and discussion about costs in the 43 reviews included in this review was extremely scant. As is detailed below, of the 43 reviews included in this review, only four reported findings on cost from their included studies, or estimated intervention costs. No reviews reported finding usable evidence about cost-effectiveness. The authors of one further review reported that they had looked for cost data and found none. The text below represents the information about costs and cost-effectiveness that was presented by review authors.

Four reviews produced findings about the costs of interventions. In two cases, reviewers produced estimates of relative costs:

- Montgomery et al. (2008) claimed that 'broad cost data' for personal assistance for older adults (65+) without dementia were available for only one trial, and that this suggested that personal assistance might save a small amount of money compared with usual treatment ($5.04 per participant per day (Ruchlin and Morris, 1983)). Data from three other trials were said to provide little information about the true relative costs of personal assistance and other services. Montgomery et al. argued that cost data were difficult to interpret and had limited generalisability because they referred to charges for specific government programmes. These authors concluded that the total cost to recipients and society are unknown.
- Similarly, Mayo-Wilson et al. (2008) reported that the total costs of personal assistance for adults (19–64) with both physical and intellectual impairments was unknown. They claimed that some data suggested that personal assistance might save a small amount of money compared to the standard treatment (reported to be $25.30 per participant per day (Sherwood (1983)). Again, it was argued that there is little information about the true relative costs of personal assistance and other services.

In a further two cases, reviewers reported cost data, or had estimated costs, without then comparing this with other interventions:

- Foster et al. (2007) reported that actual or estimated costs of delivering a self-management education programme for people with chronic conditions per participant only appeared in a small number of studies (four). These authors reported that two included studies described costs of provision in the UK, at £123 (Griffiths et al. 2005) and £250 (Kennedy et al. 2007).
- Lee et al. (2007) estimated the cost of the number of tai chi sessions required to treat rheumatoid arthritis (RA) and concluded that the total direct costs per person would be about $960. These authors reported finding no cost-effectiveness studies.

Cost-effectiveness findings were examined in three reviews, but none found evidence to be sufficient for a conclusion:

- Foster et al's review of self management education (2007) reported that only one of its included studies (Kennedy et al. 2007) had examined cost-effectiveness, but that complete information was not yet available.
- Yohannes and Caton (2010) reported that one of their included studies (Patrick et al. (2001)) had examined an aquatic exercise intervention and had concluded that cost-effectiveness was variable.
- Forster et al. (2009) sought evidence for the cost-effectiveness of rehabilitation for older people in long-term care and reported that it was insufficient to make recommendations. In their view, due to the variation between individuals in the amount of resources they used, large trials would be required to support economic arguments.

One further review looked for, but found no studies with cost data. Tungpunkom et al. (2012) reported finding no studies with economic outcomes for life skills programmes for people with chronic mental health illnesses.

In sum, evidence on the costs of social care interventions within the systematic review literature is very limited. Clearly, more comprehensive and up-to-date research is required in this area.

4. Which evaluated social care interventions have a harmful impact on ASCOF outcomes?

This chapter focuses on the available evidence which shows harmful impacts of social care interventions on ASCOF outcomes. The chapter examines:

- the detail of the findings regarding harm
- the limitations of this evidence
- the implications of this evidence.

Evidence of a harmful impact of social care interventions was found in just two of the 43 included reviews. Moreover, this evidence came from reviews where the overall finding was that the interventions they examined had a positive impact. As the evidence of harmful impact is such a tiny fraction of the overall findings there is potential for this important information to be overlooked. Possible harm to social care recipients is of such significance, however, that this evidence warrants further exploration.

In the Leung et al. (2011) review, which examined whether tai chi interventions were effective for reducing falls among older adults, some evidence indicated that tai chi may actually increase the number of falls among older adults who are frail. The review included a total of five good-quality studies, which overall showed that tai chi was effective in reducing the number of falls. However, one of the included studies examined outcomes for both non-frail and frail older adults. This single study found that whilst tai chi had a large positive impact on reducing falls among non-frail older adults, frail older adults were almost three times more likely to have a fall than those receiving no intervention. Thus the authors concluded that 'it is evident that Tai Chi reduces falls … [but] care must be taken in generalising this conclusion' (Leung et al. 2011 p.47).

However, there are limitations to this evidence. It should be noted that these findings on frail older adults come from just one study, and although it is clear that the study was of high quality (scoring 9/10 on quality assessment) it is not clear how big the sample of frail older was. Thus it is clear that further evidence is warranted, and that these findings must be regarded as preliminary. Moreover, the authors of the review did not propose avoiding tai chi with frail older adults, but suggested that 'Frail elderly people may require sessions of lower intensity over a longer time span' (Leung et al. 2011 p.47).

The review by Gillison et al. (2009) examined whether exercise interventions had an impact on quality of life among people with different kinds of long-term condition (see Section 3.2 for further details of this review). Gillison and colleagues investigated the impact of exercise undertaken among two different populations, both with long-term conditions: a) people exercising for recovery of function after a period of ill health (rehabilitation) and b) people exercising for symptom management or to prevent deterioration where improvement in function was not expected (management). The review examined different quality of life outcomes: general QoL, ADL and psychological QoL. Positive impacts or no evidence of difference between groups were found for all outcomes among both populations except in one instance: exercise had a negative impact on the psychological QoL of those exercising for condition management. Based on a meta-analysis of 13 studies the findings showed a small but statistically significant deterioration in

psychological QoL among patients exercising for condition management compared to controls.

However, there are again limitations to the evidence. First, although a fairly large number of studies contributed to the meta-analysis, the number of participants involved in those studies is not reported, therefore we do not know how large the evidence base is. Second, the quality of the included studies was not assessed so we do not know how reliable the evidence is. As with the Leung (2011) review described above, the authors of this review did not suggest avoiding the use of exercise among people managing long-term conditions, especially as these participants experienced a positive impact on their general QoL. Gillison and colleagues (2009) ultimately suggested that the findings had 'implications for the timing of exercise interventions … [and that] it would be beneficial to consistently monitor patients' psychological responses simultaneously with their physical responses to exercise, to ensure that the benefits truly outweigh the costs to vulnerable patient groups' (Gillison et al. 2009 p.1708).

These reviews illustrate how effective interventions may be harmful for particular population sub-groups. Thus, the evidence suggests that context is a very important factor in the implementation of social care interventions. Careful application and tailoring of interventions to specific social care population groups, or those in particular contexts or settings, may therefore be an essential component of effective interventions.

5. How much impact do effective social care interventions have on ASCOF outcomes?

The purpose of this chapter is to illustrate which effective social care interventions have the greatest impact. Chapter 3 identified *which* social care interventions have been shown to be effective. This chapter examines available data on *how effective* those social care interventions are. The chapter reports:

- an overview of the evidence examining scale of impact
- a description of the approach taken for examining scale of impact
- the findings regarding 'larger' impacts resulting from social care interventions
- the findings about 'smaller' impacts resulting from social care interventions.

5.1 Reviews containing evidence on scale of impact

As reported in the previous chapters, 8 types of social care intervention in 23 reviews have been shown to be effective. These findings were drawn from both narrative and meta-analytic systematic reviews. However, the evidence for this chapter is drawn *only* from reviews which statistically pooled evidence in a meta-analysis. This is because meta-analysis is designed to examine the scale of effect, and because a pooled or 'overall' effect size is calculated. Narrative reviews may (or may not) examine the size of effect of individual studies, but are unable to provide an estimate of the overall size of effect for all the included studies. It must be noted, however, that as we are reliant on meta-analytic reviews, we are drawing on a very narrow pool of evidence. Among the 23 reviews in which evidence of a significant positive impact of social care interventions was found, 13 provided meta-analytic scale of impact data. Scale of impact evidence is not currently available for two of the eight social care interventions which have been shown to be effective (assistive devices and personal assistance). Moreover, no meta-analytic evidence is available on how much impact social care interventions have on satisfaction with services or safeguarding outcomes. Appendix 6 provides an overview of the scale of impact evidence.

5.2 Examining the scale of impact

To identify the scale of impact, we consider the following:

- Scale of effect. We examined effect sizes based on standard mean difference (SMD). In order to illustrate the relative scale of impact, we have categorised effect sizes of 0.5 or more as 'larger' effects, and effect sizes which are under 0.5 as 'smaller' effects. It should be noted however, that given the types of outcomes involved in these analyses, smaller effect sizes may actually be quite considerable. For example, in the review by Sawka et al. (2010) the effect size (0.51) only just made it into our 'larger' category, but this borderline 'larger' effect size translates as people in the control group being 2.5 times more likely to sustain a hip fracture than those wearing hip protectors.
- The trustworthiness of the evidence. The size and quality of the evidence base is assessed together with soundness of the meta-analysis. This can inform decisions about whether we can trust the scale of impact reported by the authors. See Chapter 7 for further details.

To identify whether it would be viable to implement the social care interventions evaluated here, we outline:

- The nature and context of the intervention. We assess whether comprehensive details have been reported so as to assess whether it would be possible to replicate the intervention, or to understand the resources required for delivery.
- Author reflections on the implementation of the intervention. Such reflections are speculative, based on the authors' opinions rather than assessed evidence. However, we report them as they illuminate potential operational issues.

Table 5: Overview of evidence on scale of impact

Number of contributing reviews	**13**
Interventions	1. Physical activity (8 reviews) 2. Occupational therapy (2 reviews) 3. Supported employment (1 review) 4. Lay/peer support (1 review) 5. Hip protectors (1 review)
Populations	LTCs (10 reviews); Mental health (1 review); older people (2 reviews)

Summary of evidence	• Larger impacts on ASCOF outcomes resulted from:
	  • physical activity – (4 reviews)
	  • supported employment (1 review)
	  • occupational therapy (2 reviews)
	  • hip protectors (1 review)
	• Smaller impacts on ASCOF outcomes resulted from:
	  • physical activity – (5 reviews)
	  • occupational therapy (2 reviews)
	  • lay peer support (1 review)
	• Scale of impact evidence is not currently available for:
	  • 3 of 8 effective social-care interventions
	  • satisfaction and safeguarding outcomes
	  • key social care populations (learning disabilities, physical disabilities).

5.3 Social care interventions that have 'larger' positive impacts on ASCOF outcomes

Eight different interventions had larger positive impacts on ASCOF outcomes. Half of these (4) were from physical activity programmes. The remaining four interventions were occupational therapy, supported employment, individual assessment and support, and hip protectors. Larger impacts on quality of life were

reported for five of the interventions. Larger effects on delaying and reducing the need for support were reported by three. The details of the interventions and impacts are outlined below.

5.3.1 'Larger' impacts on quality of life

There were five larger impacts on quality of life for adults with long-term conditions. These impacts related to different aspects of quality of life: one related to social participation in terms of employment (Bond et al. 2008), one was found for ADL outcomes (Legg et al. 2007) and the remaining three related to QoL outcomes (Floyd and Moyer 2010; Olazaran et al. 2010; Gillison et al. 2009).

Integrated mental health and employment services improve social participation (employment) (Bond et al. 2008)

Access to employment is an important aspect of social participation, as made explicit in the quality of life domain of the ASCOF (Department of Health 2012 p. 26). The review by Bond et al. (2008) meta-analysed evidence from a total of 11 studies which evaluated individual placement support (IPS) interventions on a range of employment outcomes.

How big an effect does it have?

- A larger positive impact (0.83) was found on rates of employment; 61% of IPS participants found work compared to 23% for control group participants (11 RCTs)
- The review also found that IPS had a larger positive impact (0.67) on participants' ability to obtain a job with more than 20 hours of work per week. Such a job was held by 43.6% of IPS participants, compared to only 14.2% of the control group. (4 RCTs)
- Effect sizes were not calculated for another three employment outcomes. For these outcomes, however, the authors reported favourable effects of the intervention:
    - Participants on the IPS programme found work quicker than their counterparts. The mean number of days to gaining first employment was 138 days (IPS) compared to 206 (controls) (7 RCTS)
    - IPS participants held a job for longer than the control group. The mean duration of longest-held employment was 22 weeks for the intervention group and 16.3 weeks for the control group (6 RCTs)
    - The number of weeks worked per year was also greater for the IPS group. The mean annualised number of weeks worked was 12.1 weeks for the intervention group, compared to 4.8 weeks for the control group (7 RCTs).

How trustworthy is the scale of impact evidence?

The evidence base, in particular for employment rates is large (11 RCTs, 2,594 participants), however the reviewers have a number of concerns about the trustworthiness of the evidence. First, the quality of the included studies was not assessed. This means that it is impossible to know how robust these findings were. It should be noted, however, that all studies were RCTs and that four of these were considered methodologically sound by the Dickson and Gough (2008) review. Second, reviewers also had concerns about the methods used for the meta-analysis. Firstly, statistical significance and heterogeneity were not calculated for any of the outcomes. Thus we don't know how confident to be that the results did not occur

by chance, or whether the interventions evaluated in the different studies were suitable for comparison in a pooled analysis. Second, standardised effect sizes were not calculated for three out of the five outcomes, meaning that we were unable to categorise the scale of effect as larger or smaller, and are thus unable to compare it with other interventions and outcomes.

How much do we know about the intervention?

Information on intervention components was good but most other contextual details were lacking. The authors of this review did not describe details of the specific components of each intervention evaluated but they did describe the 'core principles' of IPS and stated that 'In every study, high fidelity to IPS was ensured through systematic monitoring using the IPS Fidelity Scale' (Bond et al. 2008 p. 281). The principles of IPS were described as: a) a focus on competitive employment; b) eligibility based on consumer choice; c) rapid job search; d) integration of mental health and employment services; e) attention to consumer preference in job search; f) individualised job support; and g) personalised benefits counselling. The intervention setting, provider, duration and intensity were not described. Participants in the 11 studies were described as adults who met each state's or province's criteria for severe mental illness and who were unemployed. Participants were also described as mostly being recruited from mental health centres, and in all but one study, as people who expressed a desire to work. However, consistent information on the age, gender and ethnicity or living circumstances of the participants was not described.

What do the authors say about implementing the intervention?

The authors felt that the number of hours worked per week would necessarily be influenced by the rules governing receipt of disability payments, citing the fact that less than 1% of IPS participants left disability rolls during the follow-up period. The authors expressed surprise that the mean length of time to first employment was so long (mean 20 weeks), particularly as in most studies, the large majority of people who work are those who obtain employment in the first six months. Thus, the authors suggest that it would be important for the intervention to focus on speeding up time to first employment. They suggest that a vocational profile that matches individual's preferences, skills and experiences to job types and work settings may improve and speed up the job-seeking process and increase job tenure as well.

Exercise interventions have a larger positive effect on general QoL among women who have survived breast cancer (Floyd and Moyer 2010)

How big an effect does it have?

- A larger impact (0.56) was found on the general QoL of women with breast cancer. The authors noted that this was in accord with prior findings that exercise interventions are an effective means of improving QoL for people with cancer
- The authors of this review also investigated whether group sessions had a greater impact on QoL than individual sessions, but the meta-analysis revealed no evidence of difference between group and individual formats.

How much do we know about the intervention?

Intervention components, length and intensity were well described in a comprehensive table of studies (p. 15) but details of the provider, setting and comparison groups were lacking. The included studies covered a range of exercise types, including dance, biking, resistance training, arm ergometers and swimming. However, most studies were described as walking-based or included walking. The

authors also described how intensive the exercise interventions were, describing them as 'low-moderate' for 11% of studies, 'moderate' for 11%, 'moderate-hard' for 28% and 'hard' for 22%. Intensity was not stated for the remainder. The mean length of intervention was 14.1 weeks, and sessions were on average 45 minutes and occurred 2 to 3 times per week. The table of studies also provide good detail on study participants' age (mean 52.8 years), cancer stage (mostly primary stage 1 or stage 2) and mean time since diagnosis (17 months).

How trustworthy is the scale of impact evidence?

The evidence base is a reasonable size (12 RCTs; n=679) and described as being of fair quality. Effects were found to be statistically significant ($p < 0.001$). However, significant heterogeneity ($Q = 37.24$) suggests that the individual studies may not have been sufficiently similar for a pooled analysis.

What do the authors say about implementing the intervention?

The review aimed to compare the effects of group exercise sessions with individual exercise formats. The findings of the meta-analysis did not support the authors' hypothesis that a group format would be more effective than individual exercise. In the discussion of their findings, the authors explored the extent to which group cohesion was actually promoted or supported by the interventions. They concluded that there was 'suggestive evidence that the studies examined generally did not specifically focus on fostering group cohesion in their group participants' (Floyd and Moyer 2010 p. 9). Therefore, it may not be possible to draw conclusions about the value of group exercise from their analysis. However, the authors found half of the studies reporting improvement in QoL (3/6) did foster social interaction as part of the intervention.

Light to moderate exercise has a larger effect on general QoL among people rehabilitating from a period of ill health (Gillison et al. 2009)

How big an effect does it have?

- Light to moderate exercise was found to have a larger impact (0.55) on the general QoL of people with long-term conditions who were rehabilitating from a period of ill health
- The review also looked at people with LTCs who were using the intervention to help manage their condition, but found a small deterioration in QoL for this group
- Small positive impacts were also found on psychological QoL as described below.

How trustworthy is the scale of impact evidence?

Although the evidence is based on a reasonable number of RCTs (n=12) and the effects were found to be statistically significant, there are a number of limitations to the evidence base. First, quality of the studies was not assessed. Second, information on the total number of participants was not provided. Third, there was significant heterogeneity ($Q = 54.85$), which suggests that the individual studies may not have been sufficiently comparable for a pooled analysis.

How much do we know about the intervention?

The review report includes a table of studies, providing a basic overview of each of the included interventions, but key details are scant or missing. The table (p. 1074-1075) provides a one-word description of the type of exercise such as 'walking', 'aerobic' or 'resistance'. For some studies, however, the nature of the exercise

intervention is even less clear – being described as 'mixed' or 'free choice'. The table also describes for each study the purpose of the exercise intervention (rehabilitation or disease management), how intensive the exercise was ('light' or 'moderate') and the setting ('supervised' or 'home'); however it does not specify how often exercise was engaged in or over what period of time.

What do the authors say about implementing the intervention?

The authors identify three factors that may influence the impact of the intervention. First, patients may have high, possibly unrealistic, expectations about the potential impact of the intervention on their condition. It is unlikely that the outcomes of the exercise can meet these expectations. Therefore patients respond poorly to the intervention. Second, the stage of the disease at which intervention takes place can affect the impact. The authors suggest that patients managing a chronic condition are not as receptive to behaviour change as those rehabilitating from a period of ill health. Third, the patient's quality of life at the outset of the intervention is important. The authors suggest that a sufficiently positive level of QoL is required in order for the intervention to be accepted and efficient.

ADL focused post-stroke occupational therapy improves activity and mobility outcomes (Legg et al. 2007)

How big an effect does it have?

- Occupational therapy (OT) was found to have a larger impact (0.67) on preventing deterioration in activities of daily living
- The authors translated this effect size into the following conclusion: 11 patients need to be treated to avoid one patient deteriorating in personal activities of daily living, or alternatively that for every 100 people receiving OT, 11 would be spared a 'poor outcome', defined as 'death or experiencing a deterioration in ability to perform personal activities of daily living' (p. 5)
- The review also examined participation in ADL as an outcome, finding a small effect, as described below (Section 5.4.1).

How much do we know about the intervention?

The information on intervention components was good and well described in a comprehensive table of studies (p. 3–4). The information captured in this table makes clear for each intervention the intervention components, provider, setting, length and intensity. All of the interventions aimed to encourage people to participate in personal activities of daily living after stroke and were supervised or delivered by a UK-based occupational therapist. However, the intervention components varied across the studies. The majority of the interventions had a general focus on ADL (5) and two focused on leisure activities. The duration of the OT ranged from 3 to 12 months and visits took place weekly or monthly. Participants were recovering from stroke and recruited at the point of discharge from hospital or shortly after. The age of the participants ranged from 55 to 87.5 years and the gender balance of the samples varied from 19% to 66%. Most participants were living at home; one study was based in a nursing home.

How trustworthy is the scale of impact evidence?

The evidence is trustworthy. The evidence base is fairly large, with 1,065 participants coming from 7 RCTs. The quality of these studies was judged to be 'generally good'. The meta-analysis was sound, with effect sizes being statistically as well as clinically significant, and no significant heterogeneity was found.

What do the authors say about implementing the intervention?

The authors identify two issues. First, due to the complex nature of OT and the variation in included interventions, it is difficult to determine which aspects of OT cause positive effects. The authors conclude that the review justifies the use of OT as an overall package for people recovering from stroke. Further research is required, however, to better understand which components of OT are effective. Second, the authors question whether the effects found by the review would be replicated in real-world settings. They note that the interventions 'were probably provided by experts and not particularly constrained by day to day service factors' (p. 7).

In home counselling for people with Alzheimer's has a larger positive effect on general QoL (Olazaran et al. 2010)

How big an effect does it have?

In-home counselling and support has a larger effect on general QoL (0.561).

How much do we know about the intervention?

Details about the content of the intervention are limited, but there is adequate information about the delivery of the programme. There is limited demographic information on the participants. The intervention consisted of individualised programmes for effective dementia care based on comprehensive assessment, environment modifications and continuous counselling and support. It was delivered by both professional and non-professional care givers in a nursing home or other community setting. The intervention lasted between 6 weeks and 4 months and consisted of 60–90 minute sessions, once or twice per week. Participants had mild to moderate dementia. The age, gender and ethnicity of the participants is not reported.

How trustworthy is the scale of impact evidence?

The larger positive effect is based on the meta-analysis of only two low-quality RCTs. Participants numbered 170. The meta-analysis is sound as the finding is statistically significant and there was no substantial heterogeneity.

What do the authors say about implementing the intervention?

The authors identify the cost benefits of using non-pharmacological therapies with people who have dementia. In contrast to drugs, non-pharmacological therapies are often of low cost, and the cost relates to human endeavour rather than expensive technology or medication. However, the authors suggest that rather than being viewed as an alternative to medications and drugs, non-pharmacological therapies should be understood as complementary approaches.

5.3.2 'Larger' impacts on delaying and reducing the need for care and support

Three interventions had 'larger' impacts on delaying and reducing the need for support. One impact was on hip fractures among older people (Sawka 2010) and two impacts were reported on mental health outcomes for people with long-term conditions (Lin et al. 2011; O'Brien et al. 2010).

Yoga has larger positive impact on reducing anxiety and depression among people with cancer (Lin et al. 2011)

How big an effect does it have?

- The practice of yoga was found to have a larger positive effect (-0.95) on reducing depression
- Yoga was also found to have a larger positive effect (-0.76) on reducing anxiety.

The effects were measured post-treatment, between 7 and 24 weeks after patients with cancer undertook a programme of yoga. Patients undertaking yoga were more likely than those who did not to feel psychological health benefits on the following day.

How much do we know about the intervention?

There is good information on the type of yoga interventions and their duration and intensity. Four different styles of yoga were described (Restorative, Integrated, Hatha and Tibetan). These interventions included yogic stretching, breathing and relaxation. The frequency of the yoga practice ranged from a minimum of 2.5 hours per week to a maximum of 1 hour per day. The duration of the yoga programme lasted between 7 and 24 weeks. Providers were described as 'therapists'. Patients who practised the yoga had been diagnosed with cancer between 1 and 4.5 years previously. They were mainly female (96%) and aged between 43 and 58. No details were provided on the ethnicity of the participants.

How trustworthy is the scale of impact evidence?

The evidence is reasonably robust. It is based on eight RCTs of fair quality and includes a reasonable sample size (745). The meta-analysis is statistically significant and does not have substantial heterogeneity. The high proportion of women in the sample may, however, affect the generalisability of the findings.

What do the authors say about implementing the intervention?

The authors recognise that the psychological health benefits of the intervention may be caused by yoga as a whole or components of the practice, such as meditation or mindfulness.

Aerobic exercise has a larger positive effect on depression for people with HIV/AIDS (O'Brien et al. 2010)

How big an effect does it have?

- Meta-analysis demonstrated that aerobic exercise had resulted in a reduction of 7.68 points on the depression-dejection subscale sub-scale of POMS (Profile of Mood State)
- A standardised effect size was not reported, but the review authors described it as a 'clinically important improvement among exercisers compared to non-exercisers'.

How much do we know about the intervention?

The review provides a good level of information about the type of aerobic exercise, its intensity and duration. No details were provided about the setting of the intervention or who delivered it. Exercise took place on a stationary bike, treadmill, stair stepper or cross country machine for a minimum of 30 minutes. Participants took part in the aerobic exercise for 5 to 12 weeks. The impacts were reported for adults with HIV/AIDs, aged between 18 and 40. These participants were mainly male. No details were provided about their ethnicity.

How trustworthy is the scale of impact evidence?

The evidence is weak. There are only two low-quality RCTs with a total of 65 participants. Whilst the meta-analysis is sound (statistically significant findings and low heterogeneity), the overall conclusions are based on limited evidence.

What do the authors say about implementing the intervention?

The findings suggest that adults with HIV/AIDS can safely practice aerobic exercise if they are medically stable. Aerobic exercise should be performed for at least 20 minutes, 3 times per week for at least 5 weeks to lead to improvements in psychological status.

The authors identify two limitations regarding the interpretation of the findings. First, due to the narrow sample (mainly men, between the ages of 18 and 40), the findings have limited generalisability for women and older adults living with HIV. Second, as the outcomes were measured immediately post-treatment, the longer-term effects remain unknown.

Hip protectors reduce the risk of hip fracture for elderly nursing home residents (Sawka et al. 2010)

How big an effect does it have?

- Hip protectors have a larger positive impact (-0.51) on reducing hip fracture for older adults. These effects were observed 11–26 months post-intervention
- Control group participants receiving no intervention (usual care) were two and a half times more likely to sustain a hip fracture than those wearing the hip protectors (odds ratio 0.40 (95% credibility interval 0.27, 0.56).

How much do we know about the intervention?

There is a reasonable level of detail on the nature of the intervention, and its delivery. The intervention involved the application of hip protectors on both hips and the provision of information in the form of a leaflet on fracture prevention. The duration of the intervention was between 11 and 26 months. Details of the provider of the intervention, however, are not reported. Those receiving the intervention were elderly nursing home residents with nursing care available on-site 24 hours a day. The age of the male and female residents receiving the intervention (n=2,594) was 65 years and over. Ethnicity was not reported.

How trustworthy is the scale of impact evidence?

The evidence base is good, with 5 medium-quality RCTs with a total of 2,594 participants. The meta-analysis is sound, with statistically significant findings and no substantial heterogeneity.

What do the authors say about implementing the intervention?

The authors conclude that hip protectors may reduce the risk of hip fracture in institutionalized elderly and hypothesise that it may be reasonable to reserve hip protectors for nursing home residents at highest risk of hip fracture, such as residents with prior fragility fracture or multiple risk factors.

5.4 Social care interventions that have a 'smaller' impact on ASCOF outcomes

5.4.1 'Smaller' impacts on quality of life

Aerobic exercise interventions improve the general QoL of people with rheumatoid arthritis (Baillet 2010)

How big an effect does it have?

Aerobic exercise interventions have a smaller impact on the general QoL of people with rheumatoid arthritis. The pooled size of the effect was 0.39.

How much do we know about the intervention?

Details regarding the intervention are scant. A table described for each study whether the intervention was 'cardiorespiratory aerobic conditioning' or a 'dynamic exercise program', and whether delivery was supervised or home based. However, no further details were provided regarding intervention components, providers or settings. The range of duration and intensity of interventions was described, but varied hugely (duration from 4 to 104 weeks; intensity from 10–75 minutes 2–5 times a week). Participants were adults (mean age 44–68 years) with rheumatoid arthritis with a disease duration of 1 to 16 years.

How trustworthy is the scale of impact evidence?

The size of the evidence base was reasonable, and the meta-analysis findings were significant, with no significant heterogeneity. However, the quality of included studies was described as low.

What do the authors say about implementing the intervention?

The authors described how the frequency of sessions was an important consideration for implementation. Cardiorespiratory aerobic exercise was found to have a positive impact on QoL when performed more than three times per week, whereas it had no effect when performed three times per week or less. The duration of the individual sessions and exercise supervision was also found to impact on outcomes. If the duration of the exercise session was more than 60 minutes, there was a positive impact, whereas exercise sessions lasting 60 minutes or less had no effect.

Light to moderate exercise improves ADL for people managing a chronic condition (Gillison et al. 2009)

How big an effect does it have?

Light to moderate exercise has a smaller positive impact ADL for people managing a chronic condition (0.19).

How much do we know about the intervention?

As stated above.

How trustworthy is the scale of impact evidence?

Limited details about the included studies mean that it is difficult to judge the trustworthiness of the evidence base. The findings are based on 13 RCTs, but the quality of these studies and the number of participants are not reported. However, the meta-analysis is sound, with the pooled effect size being statistically significant and without substantial heterogeneity.

What do the authors say about implementing the intervention?

As stated above.

Occupational therapy focusing on ADL for people who have had a stroke improves their ability to undertake ADL (Legg et al. 2007)

How big an effect does it have?

Occupational therapy focusing on ADL for people who have had a stroke has a smaller positive effect on their ability to undertake ADL (0.18).

How much do we know about the intervention?

As stated above.

How trustworthy is the scale of impact evidence?

The evidence is trustworthy. The evidence base is fairly large, with 961 participants in 8 RCTs. The quality of these studies was judged to be 'generally good'. The meta-analysis was sound, with effect sizes being statistically as well as clinically significant, and no significant heterogeneity was found.

What do the authors say about implementing the intervention?

As stated above.

Tai chi improves ADL of people with chronic arthritis (Hall et al. 2009)

How big an effect does it have?

The pooled size of the effect was 9.6 points on a 0–100-point scale, or an effect size of 0.4, which equates to a 'smaller' effect. The outcome, measured directly after a course of treatment, was based on measures of physical function and was described by the review authors as 'small positive effects on … disability' (Hall et al. 2009 p. 722).

How much do we know about the intervention?

The review identifies the style of tai chi together with the length and intensity of its delivery. However, details are limited about the intervention setting and provider. The intervention included Yang or Sun styles of tai chi, with practice taking place over a period of 6–12 weeks, with 2–3 sessions of 40–60 minutes per week. No information was provided about who delivered the intervention and in what setting. Intervention recipients were people with osteoarthritis. The mean age of participants in each study ranged from 65 to 77 years. No details were provided about their gender or ethnicity.

How trustworthy is the scale of impact evidence?

Although the effect sizes are statistically significant and the heterogeneity is low, the evidence does have limitations. First, the evidence is based on just four small studies with a total population of just 214. Second, the studies were mostly of low methodological quality. Caution is therefore advised when interpreting the findings.

What do the authors say about implementing the intervention?

The authors posit that because tai chi is inexpensive, convenient, enjoyable, and conveys other psychological and social benefits, a smaller effect size may be considered clinically worthwhile for this type of intervention.

Aerobic exercise improves QoL for people with fibromyalgia syndrome (Hauser et al. 2010)

How big an effect does it have?

- Aerobic exercise had a smaller effect on QoL when measured immediately after the intervention (-0.40)
- A smaller impact was also detected at follow-up (-0.27) (median latest follow-up 26 weeks, measured in 8 of the 25 studies).

The authors concluded that the interventions reduced limitations of health-related QoL at both post-treatment and at latest follow-up, but the effects were smaller.

How much do we know about the intervention?

Contextual details on the intervention were good. Interventions involved various forms of aerobic exercise such as cycling, walking, aquatic jogging, games, dance and rhythmic or boxing movements. Supervision by a trainer was reported in 20 of the 25 studies. The interventions took place in university, community and hospital fitness centre settings over a period of 6–23 weeks. There was wide variation in the reported duration and intensity of the intervention; sessions were held between 1 and 7 times per week for between 25 and 120 minutes. Participants included patients with fibromyalgia syndrome aged 13-59 years. Women comprised 71–100% of the population; men and adolescents rarely took part. Information about ethnicity or living setting was not provided.

How trustworthy is the scale of impact evidence?

A large evidence base was found but there are limitations. Of the 11 meta-analyses considered in this chapter, the Hauser et al. (2010) review had the largest number of studies (25 RCTs, 8 of which provided follow-up impact). It was also relatively large in terms of numbers of participants (1,266; 424 at the latest follow-up). However, the included RCTs were of variable quality. The data gathered immediately after the intervention was found to be statistically significant, but the follow-up finding is borderline. Conversely, whilst there was no significant heterogeneity at follow-up, there was significant heterogeneity at post-treatment.

What do the authors say about implementing the intervention?

The authors noted that the findings of the review were relevant for the majority of patients in clinical practice, with the exception of populations that were unable to take part in aerobic exercise (such as those with internal or orthopaedic diseases). The authors also recognise that the impacts have mainly been observed with female patients and so there might be limited generalisability to male populations.

The authors outlined a number of recommendations for implementing an aerobic exercise intervention:

- Patients should choose their exercise of preference
- Training programmes should last at least four weeks
- Frequency and intensity of the exercise should be tailored to individual fitness levels. Patients should start at levels just below their capacity and gradually increase the duration and intensity until they are exercising with low to moderate intensity for 20 to 30 minutes, 2 to 3 times a week. The intensity should still allow patients to speak fluently whilst exercising.
- Patients should be informed that there may be some tolerable, short-term increases in pain and fatigue. They should also be told that these symptoms should be resolved if a suitable exercise programme is followed (adequate intensity and frequency)
- Patients should be encouraged to continue with the exercise following the training programme if they perceive an improvement in their condition.

Training in ADL improves the performance of ADL for people with Alzheimer's (Olazaran et al. 2010)

How big an effect does it have?

Training in ADL leads to a smaller positive effect in the activity/mobility of people with Alzheimer's (0.412).

How much do we know about the intervention?

Details about the content of the intervention are limited, but there is adequate information about the delivery of the programme. There is limited demographic information on the participants. The ADL training consisted of guided performance providing the minimal required assistance to complete target ADLs, e.g. verbal prompting and reinforcement to avoid incontinence. The intervention was delivered by professional and nonprofessional care givers in a nursing home or other community setting. The intervention was integrated in usual care, or individual (30 minutes, 3 times a week) or group (2.5 hours, 5 times a week) sessions. The intervention lasted between 3 days and 20 weeks. The age, gender and ethnicity of the participants was not reported.

How trustworthy is the scale of impact evidence?

The smaller positive effect is based on the meta-analysis of only three, low-quality RCTs. Participants numbered 95. The meta-analysis is sound as the finding is statistically significant and there was no substantial heterogeneity.

What do the authors say about implementing the intervention?

As stated above.

Enriched group cognitive stimulation improves the performance of ADL among people with Alzheimer's (Olazaran et al. 2010)

How big an effect does it have?

Enriched group cognitive stimulation has a smaller effect on ADL among people with Alzheimer's (0.369).

How much do we know about the intervention?

Details about the content of the intervention are limited but there is adequate information about the delivery of the programme. There is limited demographic information on the participants. Multi-component enriched group cognitive stimulation included cognitive stimulation, reminiscence and some relaxation and support. The programme lasted between 10 and 52 weeks, once or twice weekly for 90 to 210 minutes. The intervention was delivered by professional and nonprofessional care givers in a nursing home or other community setting. The age, gender and ethnicity of the participants was not reported.

How trustworthy is the scale of impact evidence?

The findings are based on the meta-analysis of only three, low-quality RCTs. Participants numbered 167. The meta-analysis is sound as the finding is statistically significant and there was no substantial heterogeneity.

What do the authors say about implementing the intervention?

The authors noted that multi-component interventions meant that it was difficult to know what element was effective, how it was effective and for whom.

5.4.2 'Smaller' impacts on delaying and reducing the need for care and support

Tai chi has a smaller impact on reducing falls among non-frail elderly nursing home residents (Leung et al. 2011)

How big an effect does it have?

- Tai chi was found to have a smaller positive effect (-0.09) on the rate of falls among elderly people when compared to those receiving no treatment
- The positive effect remained when measured again at 52 weeks (-0.26).

How much do we know about the intervention?

The intervention content and context were well described. Tai chi was described as 'a traditional Chinese martial art involving slow and continuous but highly choreographed movements that incorporate unilateral and bilateral weight shift as well as trunk and extremity rotation' (Leung 2011 p. 40). The review examined five major styles of tai chi. These differ by training approach and movement but share the same principle of using controlled muscle relaxation to generate leverage. Duration of the tai chi intervention ranged from 10 to 52 weeks, and sessions were between 20 and 90 minutes, occurring from daily up to fortnightly. Participants were described as male and female non-frail elderly nursing home residents, from 63 to 98 years of age.

How trustworthy is the scale of impact evidence?

The evidence was drawn from only a small number of studies (n=3) but with a large total number of participants (1,068). The findings were not shown to be statistically significant and heterogeneity statistics were not reported.

What do the authors say about implementing the intervention?

The authors highlighted the potential value of tai chi for older adults, suggesting that this activity might be self-sustaining with greater numbers of older adults taking part. The authors described tai chi as having an advantage over other forms of exercise as it is regarded as an easy-to-follow and enjoyable exercise that can be practised anywhere and at any time. Moreover, tai chi does not require specialised equipment or professional input. However, they also identified the difficulties with translating these findings into practice. The authors noted that implementation of a programme of tai chi was challenging because the optimal duration and intensity would vary according to the health status of individuals. Tai chi needs to be tailored to the needs of each older adult. In particular, they suggest that screening for frailty is important as some evidence suggests that tai chi may be harmful for this group; see Chapter 4 for further details.

Lay-led self-management for preventing poor mental health among people with LTCs (Foster et al. 2007)

People with long-term conditions are at risk of poor mental health. Foster et al. (2007) meta-analysed the impact of lay-led self-management programmes for preventing mental health problems including depression (6 studies), anxiety (3 studies) and health distress (4 studies).

How big an effect does it have?

- Lay-led self-management programmes had a smaller effect on reducing depression (-0.16) at six months follow-up
- The interventions also led to a smaller reduction in anxiety (-0.14), measured at four months post-treatment
- The authors found a smaller effect in favour of the intervention for health distress at 4-6 months follow-up (0.25)
- The authors deemed such extremely smaller effects 'likely to be trivial'.

How much do we know about the intervention?

The authors provided detailed contextual information about the interventions. They included: a) a lay-led self-management education programme in which a lay facilitator acted as a positive role model; and b) a structured course led by one or two trained and accredited lay facilitators. The sessions covered goal setting/problem-solving, lifestyle changes (diet, exercise and sleep), identifying resources, symptom management, dealing with anger/fear/frustration and communication with health professionals. Participants were also given educational material covering course content. Interventions were provided by lay people in a community setting over 6–7 weeks in 2.5 hour sessions. Comparison groups received usual care. Participants were aged between 44 and 79 years, mostly female (70%) predominantly white (although three studies focused on specific ethnic groups: Hispanic, Chinese and Bangladeshi).

How trustworthy is the scale of impact evidence?

The evidence base is quite large. Each synthesis included between three and six RCTs, with large sample sizes (between 1,576 and 2,613). The quality of the individual studies was fair–high. The effect sizes were sound, as the meta-analysis had low heterogeneity and the findings were statistically significant.

What do the authors say about implementing the intervention?

The authors stated that there was insufficient evidence at present to justify widespread implementation of these interventions. There was insufficient evidence to conclude that any benefits would be sustained over time or that healthcare resource use would be reduced. Many of the participants in these studies reported reasonable self-rated health at baseline, so it might be that these interventions were best suited to those not severely incapacity by chronic ill health. From the data reported the interventions had similar effects in different ethnic groups and there was no data to suggest that they were more of less acceptable or effective amongst people of different educational backgrounds.

Aerobic exercise reduces depressed mood for people with fibromyalgia syndrome (Hauser et al. 2010)

How big an effect does it have?

- Aerobic exercise has a smaller positive effect on depressed mood post-treatment (-0.32)
- A smaller positive effect was also observed at follow-up (-0.44).

The effects of the interventions were measured post-treatment (in 19 studies) and at follow-up (8 studies). The median latest follow-up was 26 weeks.

How much do we know about the intervention?

Contextual details on the intervention were good, as described above.

How trustworthy is the scale of impact evidence?

A large evidence base was found and results were statistically significant but there were limitations. The evidence base for this outcome comprised 19 studies with post-treatment impact (n=870), eight of which provide follow-up impact (n=374). However, study quality was variable, which signals a note of caution in interpreting the evidence, as does the significant heterogeneity between the studies included in the review (51% at post-treatment, 71% at follow-up).

What do the authors say about implementing the intervention?

The authors make considerably detailed recommendations with respect to implementing aerobic exercise interventions, as described above.

Enriched group cognitive stimulation has a positive effect on the 'mood' among people with Alzheimer's (Olazaran et al. 2010)

How big an effect does it have?

Enriched group cognitive stimulation has a smaller effect on 'mood' among people with Alzheimer's (0.376).

How much do we know about the intervention?

As stated above.

How trustworthy is the scale of impact evidence?

The findings are based on the meta-analysis of only three low-quality RCTs. Participants numbered 164. The meta-analysis is sound as the finding is statistically significant and there was no substantial heterogeneity.

What do the authors say about implementing the intervention?

As stated above.

6. Discussion and conclusions

This chapter reflects on the findings reported in this review, and their implications for policy, practice and research. It reports:

- a summary of the key findings from the review
- an examination of apparently contradictory findings from reviews
- gaps in the evidence
- strengths and limitations of the review
- recommendations for policy and practice

6.1 Key findings

6.1.1 Which social care interventions can effectively improve outcomes for service users in the four outcome domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?

The research examined for this review of review shows that some social care interventions can have statistically and clinically significant positive impacts on the outcomes set out in the ASCOF. However, a small amount of the evidence also shows that social care interventions may be harmful for some population groups.

Interventions with evidence of positive effect

- Evidence of positive impact was found for 7 of the 14 social care interventions examined in the included reviews: physical activity, occupational therapy, supported employment, lay/peer support, hip protectors, assistive devices and personal assistance.
- Evidence on the scale of positive impacts was available for five of these interventions.
    - Larger positive impacts resulted from integrated employment and mental health support and from hip protectors
    - Both larger and smaller impacts were found across eight physical activity reviews and two occupational therapy reviews
    - Smaller impacts resulted from a lay-led self-management intervention.

Interventions with evidence of harm

- Two reviews contained evidence that interventions shown to be effective for some populations could potentially cause harm to vulnerable social care recipients:
    - Tai chi, though effective for older people in general, was found to increase the rate of falls among frail older people
    - Exercise was found to have positive impacts on the general QoL of people exercising for rehabilitation after a period of ill health, but a negative impact on the psychological QoL of people exercising to support management of their condition
- This evidence makes clear the potential for harm among vulnerable sub-populations, and the need for particular vigilance when implementing social care interventions among such groups.

Interventions not shown to be effective

- There were seven interventions for which no conclusive positive evidence was found:

    - All available evidence on the following interventions was inconclusive: structured communication, safeguarding training, home hazard assessment
    - All available evidence on the following interventions showed no evidence of difference between intervention and control groups: case management, social support
    - Of two reviews on alternative therapies, one found no evidence of difference between groups, and another found inconclusive evidence
- Inconclusive evidence was also found for some interventions shown to be positive in other reviews: physical activity, occupational therapy, personal assistance, assistive devices, lay/peer support, supported employment
- No evidence of difference was found in some reviews for interventions which were found in other reviews to have positive effects: physical activity, assistive devices, lay/peer support, supported employment.

6.1.2 What evidence is available on the cost-effectiveness of social care interventions?

- Information on cost and cost effectiveness is severely limited
- Of the 43 included reviews, only four reported findings on cost from their included studies, or estimated intervention costs
- No reviews reported finding usable evidence about cost-effectiveness.

6.1.3 Are there types of services or groups of service users for which there is currently little or no available review or primary level evidence regarding the efficacy of interventions?

- There are significant gaps in the evidence base in relation to key interventions and populations
    - Evidence people with learning disabilities and people with physical disabilities is severely limited
    - There is limited review-level evidence on many social care interventions, and none for some key intervention types.

6.1.4 Do reviews with evidence about the four ASCOF outcomes indicate other important outcomes, or ways of understanding the existing outcomes, that should be considered in future revisions of the ASCOF?

- The review makes clear the dominance of health related quality of life measures in the systematic review literature, and the need for further use and development of social care relevant outcomes such as social care related quality of life measures in research
- It also makes clear that there is a lack of agreement within the research literature about whether to conceptualise ADL outcomes as a domain within quality of life or as related to delaying and reducing the need for support; there is also disagreement about whether to conceptualise mental health outcomes as health events in their own right or as an aspect of quality of life.

6.2 Contradictory review findings

- Evidence for interventions examined in multiple reviews appears to be contradictory
- However, evidence of positive impacts far outweighs any analyses showing no evidence of difference for these interventions
- Of a total of 51 analyses performed across 24 reviews on physical activity and occupational therapy, 19 showed positive findings, and 8 showed no evidence of difference or harm. The remaining 24 analyses were inconclusive, mostly due to a lack of evidence.

The pooled evidence in some physical activity and occupational therapy reviews suggests these interventions have positive impacts. Other evidence on these interventions shows no evidence of difference or conflicting findings. However, closer inspection of this apparently contradictory evidence suggests that evidence of positive impacts far outweighs any analyses showing no evidence of difference for these interventions.

Of 18 reviews on physical activity, 34 pooled analyses were performed. Of these, 13 analyses showed positive impacts, 11 were inconclusive due to a lack of evidence, and two showed conflicting findings. Two analyses identified harmful impacts but only for particular sub-groups within the populations studied; positive impacts were found for the other population groups in the same reviews (see Chapter 4).

Just six of the analyses on physical activity interventions reported finding no evidence of difference between groups. Five of these analyses were found in reviews that also found positive effects of the interventions studied, either for other outcomes or other population groups. The sixth analysis was based on just two studies. The reviewers concur with this conclusion *cautiously* because of the limited number of studies, but it should also be noted that the authors themselves suggested that the finding might be due to a lack of power of the individual studies, rather than a lack of impact of the intervention.

Within the 6 reviews on occupational therapy, 17 pooled analyses were performed; none concluded that there was no evidence of difference between groups. Six analyses showed evidence of a positive impact. One analysis resulted in an inconclusive finding due to conflicting evidence. The remaining ten analyses on occupational therapy interventions were inconclusive due to a lack of evidence.

Examining the 51 analyses within these 24 reviews shows that a lack of evidence rather than contradictory findings was the reason for the majority of analyses which did not show positive impacts (21 of 32 non-positive analyses). Of the conclusive analyses, the vast majority showed positive impacts (19 of 27). Far less evidence was available that actually contradicted positive findings (i.e. findings of no evidence of difference or harm) (8 of 27 conclusive analyses). Moreover, findings of no evidence of difference or harm were mostly contained within single reviews alongside evidence of positive effect. Implementation of such interventions would mean positive impacts on at least some outcomes or for some populations.

6.3 Gaps in the evidence

- There is severely limited evidence on satisfaction with services and safeguarding outcomes
- There is little use of quality of life measures designed to evaluate the impact of social care interventions included in reviews
- There is limited review-level evidence on many social care interventions, and none for some key intervention types
- There is scant evidence on key populations groups – people with physical and learning disabilities
- There is no evidence on cost-effectiveness.

The great breadth and extent of evidence contained within this review of reviews is clear. However, assessing the available review-level evidence across the whole of social care also makes clear that there are significant gaps in the evidence examining impact on ASCOF outcomes.

First, review-level evidence on two of the ASCOF outcomes, satisfaction with services and safeguarding, is severely limited. The only evidence on safeguarding came from a single review, and findings from this review were inconclusive due to a lack of evidence. The significance of the lack of evidence on satisfaction outcomes should also not be underestimated. Whilst this review of reviews was firmly focused on outcomes, rather than people's views or experiences of social care interventions, evidence on satisfaction provides important insights into whether such interventions are acceptable as well as effective. For example, whilst the included review by Sawka et al. (2010) indicates that hip protectors are effective for reducing fall related injuries among older people, other evidence (not includable in this review) indicates that people would not be satisfied with the provision of hip protectors as many find them uncomfortable to wear (Van Schoor et al. 2002; Gillespie et al. 2010). For many providers and recipients of social care these types of issues will be just as salient as how effective interventions are. Satisfaction with services and safeguarding are key outcomes as set out in the ASCOF, and despite extra efforts to identify research on safeguarding interventions it is clear that evidence of the efficacy of interventions is under-examined for these outcomes.

Second, the relevance to social care of quality of life measures used in many of these reviews is questionable. Many generic QoL measures were health-related quality of life measures; social care researchers point out that as social care has fundamentally different objectives to health care different measures are needed that reflect the impact and value of social care interventions (Netten et al. 2012). The disconnect between the objectives of health-related measures and the objectives of the social care interventions mean that some positive or even some harmful impacts may be missed.

Third, whilst there is a large body of reviewed evidence on physical activity and occupational therapy interventions, other types of social care interventions are only examined in one or two reviews each. Some key social care interventions, such as direct payments, are not examined at all.

Fourth, evidence on interventions for people with LTCs currently dominates the systematic review literature. Very little evidence is available on people with physical or learning disabilities.

Fifth, as has been found in many reviews of reviews (see for example Caird et al. 2010), data on, or even estimates of, intervention costs were presented only rarely

within the reviews examined for this study. None of the included reviews provided an assessment of the cost-effectiveness of the interventions they examined. Researchers have noted that economic evaluations in the field of social care are particularly rare due to numerous complexities of social care services (Francis and Byford 2011; Sefton et al. 2002). Although advances in reviewing cost effectiveness evidence have been made recently in the field of social care (Francis and Byford 2011) these will not yet have made it into systematic reviews. Because we anticipated that cost and cost effectiveness evidence would be lacking in the included reviews, we felt that a formal economic evaluation would be of little value. However, we have provided an overview of the extremely limited evidence on cost and cost effectiveness that was available from the reviews.

However, although information on the resource implications of social care interventions would be highly useful, if cost-effectiveness evidence had been available, its utility for UK policy makers and local authorities is questionable. Contextual factors are key in interpreting such evidence; for example, the resources needed to implement a social care intervention in a large US city would invariably differ from those provided in rural locations in the UK. As described below, however, one of the key strengths of this review is the systematic reporting of available details on the context and content of interventions to enable resource analyses that can be applied to local contexts.

6.4 Strengths and limitations of the review

6.4.1 Strengths

- The review has a very broad scope, containing a vast body of evidence
- The breadth of scope provides clarity about what evidence is available, and what evidence is not
- The review provides evidence on which evaluated interventions are effective, *and* how effective they are
- The review provides detail on the context and content of interventions to support implementation of evidence-based approaches.

A major strength of this review of reviews is that it brings together and synthesises a vast body of evidence across the broad spectrum social care. It contains evidence from 43 systematic reviews containing hundreds of individual studies and based on many thousands of participants. Synthesising this evidence enables the production of an accessible evidence base for policy makers, local authorities and social care practitioners, as well as researchers working in the field of social care.

One second key strength of this review is that it not only illustrates which evaluated social care interventions are effective and which are not, but it also makes clear important evidence on potentially harmful interventions and explores how much impact social care interventions have on ASCOF outcomes.

Moreover, to attempt to address the needs of policy makers and local authorities in assessing the resource implications of effective interventions, we have reported as comprehensive details as included reviews provide on the components, providers, length and intensity of interventions. Unfortunately, however, the necessary details are not uniformly available across the review and information for some effective interventions is limited.

6.4.2 Limitations

- The review of reviews approach means that:
    - evidence is limited to that which is contained in systematic reviews
    - we are reliant on review authors' interpretation of evidence
- Meta-analytic evidence is not available from all reviews.

The systematic review of systematic reviews method was chosen to enable us to bring together evidence on the efficacy of interventions across a very broad area, i.e., the whole of social care. Although this is a rational approach for evaluating such a broad area of evidence, there are nevertheless limitations.

The main limitation imposed by this method is that the evidence examined is limited to evaluations of social care interventions that are contained within systematic reviews. It is clear from the evidence assessed, that particular interventions, outcomes and populations are predominant within such literature. Possible reasons for this are the nature of evidence on the efficacy of interventions and the historical links of systematic review literature to health care.

Interventions, outcomes and populations that are predominant in this review all have some kind of a link to health. For example, physical activity interventions are provided to enhance health as much as they are quality of life. Although people with long-term conditions may have social care needs, they will invariably also have health-care needs and receive health care services. In terms of outcomes, QoL measures can be very explicitly health-focused, the Health-related Quality of Life (HRQL) measurement tool being a key example. Moreover, the domains of quality of life predominantly examined in the reviews contained within this report are general QoL (22 reviews) and ADL (21 reviews). Social participation and dignity and control were measured far less often (in nine and one reviews respectively). The prevention outcomes examined in the identified reviews also all relate to health events or health service use.

One of the reasons for the lack of focus on interventions more traditionally associated with social care may be the complex nature of social care interventions. The predominance of health-related interventions, populations and outcomes can perhaps also be attributed to the fact that evaluation of the efficacy of interventions is more common within the health literature because systematic review literature has a longer history in health than in social care (Oakley et al. 2005). The social care literature may be more focused on examining the processes involved in complex social interventions, or the experience of care for users, rather than efficacy. Thus, it is clear that although the need for evidence-based social care has long been recognised, there is still a need to further push this agenda in terms of ensuring that complex social care interventions are subjected to rigorous evaluation regarding efficacy, and are subjected to systematic review.

A second limitation imposed by the review of reviews methodology is the distance between the reviewers and the original data. Because we did not have access to the original data, we were reliant on review authors' reporting and interpretation of their findings. For example, we were often constrained in efforts to interpret statistical effect sizes; only one of the included reviews provided information on the number needed to treat. We were also constrained in efforts to capture the context of evidence in included studies; approximately half of the reviews did not indicate the countries in which included studies had been conducted.

Meta-analysis of effectiveness evidence is not always possible or appropriate; in fact some authors of the included narrative reviews were explicit that this was the

case (e.g. Allison et al. 2011 p. 217). However, where meta-analytic evidence was available in this review of reviews, it provided stronger evidence and was able to tell us more about the efficacy of interventions. First, meta-analysis gives a powerful estimate of the overall effect as it includes a larger sample: a sample pooled from multiple studies. Second, meta-analysis provides information on the scale of effect in addition to the direction of effect. Third, it overcomes potential problems with 'vote counting' in narrative reviews. Many narrative reviews use a vote-counting method, whereby the direction of effect of each of the included studies is examined, and results are seen as conclusive only when the direction of effect is the same for all studies. Where conflicting evidence is found, authors often conclude that the evidence was inconclusive. However, pooling the evidence in a meta-analysis provides a stronger estimate and ensures that authors can reach a conclusive finding (Thomas et al. 2012). While we took steps to guard against vote counting, by examining the directions of effect, this was not possible in all situations (since the original reviews only reported statistical significance) and is therefore a potential, but unknown limitation.

For example, in the Olazaran et al. (2010) review three studies on enriched group cognitive stimulation were meta-analysed as well as being described narratively regarding their impact on mental health outcomes. Of the individual studies only two indicated a positive impact, and the third indicated no evidence of difference between groups, suggesting that the evidence was inconclusive. However, when the findings from the three studies were pooled in a meta-analysis, the overall finding was that enriched group cognitive stimulation had a small positive impact on mental health outcomes. Thus, the narrative reviews with conflicting evidence in this review of reviews may have resulted in conclusive findings had a meta-analysis been conducted. Only 13 of the 43 included systematic reviews conducted meta-analysis.

Another limitation imposed by being distanced from the original data was that we had to take at face value authors quality assessments of their included studies. To be included reviews had to provide evidence from controlled trials and RCTs only. However, due to different approaches for quality assessment, differing levels of description about study quality and clear differences between reviews in terms of what they felt to be an acceptable level of quality, it was not possible to consistently apply inclusion criteria relating to the quality of included trials. We have, however, mitigated this by making transparent for each review whether quality assessment was undertaken and information the quality of included studies where this was available.

6.5 Conclusions and recommendations

6.5.1 For policy and practice

- The greatest portion of evidence included in this review of reviews is about **physical activity** – evidence suggests that these types of interventions can be effective for people with long-term conditions and non-frail older people and may address both quality of life and prevention outcomes. Moreover, although physical activity interventions may typically be regarded as not within the remit of social care, they may be relatively cheap and easy to implement, and therefore worth considering.
- More complex and perhaps more recognisably social care interventions such as **occupational therapy** are also supported by the review-level literature.
- The large and medium effects resulting from **integrated mental health and employment services** also underscore the value of complex social care interventions. Moreover, the integrated nature of this particular

intervention suggests that the current drive in the UK to integrate health and social services (Department of Health 2011) may prove to be successful. Wider evaluation of integrated services is certainly warranted.

- A last key message from the evidence is the need to recognise the influence of contextual factors on the success of social care interventions, in particular the **need for safety measures** when implementing social care interventions with particularly **vulnerable groups**.

6.5.2 For research

- The severe lack of evidence on the efficacy of **safeguarding** interventions needs addressing, especially given the recent evidence on failures of care for social care populations (Department of Health 2011a).
- Systematic reviews on the effectiveness of social care interventions for people with **physical and learning disabilities** are also needed.
- A greater body of review-level evidence on interventions more closely related to the role of social care workers is needed, i.e. evidence on the kind of **complex interventions undertaken by social care workers** and local authorities in their everyday roles.
- Evidence regarding the efficacy of recent **policy-directed interventions** is required – for example personalisation and direct payments (Department of Health 2010).
- Wider **attempts to meta-analyse evidence** on the effectiveness of social care interventions are recommended to provide a stronger evidence base for supporting policy and practice decisions.
- Robust and relevant evidence on cost and cost effectiveness of social care interventions for achieving ASCOF outcomes is also needed.

Part II: Technical description of the review

7. Detailed methods

This chapter describes in detail the methods used for this review of reviews. It describes:

- the overall approach
- the definitions for key concepts and terms
- user involvement
- methods for identifying systematic reviews for inclusion in the review of reviews
- methods for quality appraisal, data extraction and synthesis.

7.1 Review type

Systematic reviews use explicit and rigorous methods to identify, appraise and synthesise research that addresses a specific review question. This study is a systematic review of systematic reviews: reports of previous systematic reviews were the raw material for the review. The review team took a systematic approach to searching for, describing, appraising and synthesising the findings contained within the reports of these reviews.

The review had two stages. The first was a mapping exercise which described the characteristics of all relevant systematic reviews identified at that point.

The second stage was an in-depth review. This synthesised the findings of a subset of reviews from the map. As part of the in-depth review, a proportion of this same set of reviews was identified as able to provide evidence on the scale of impact of social care interventions. This report presents the findings of the in-depth review and the methods used to produce its findings.

7.2 Review question

This review was conducted to answer the following questions:

Primary review question

> *Which social care interventions can effectively improve outcomes for service users in the four domains set out in the ASCOF: quality of life, prevention, satisfaction and safeguarding?*

Secondary review questions

- *What evidence is available on the cost-effectiveness of social care interventions?*
- *Are there types of services or groups of service users for which there is currently little or no available review or primary evidence regarding the efficacy of interventions?*
- *Do reviews with evidence about the four ASCOF outcomes indicate other important outcomes, or ways of understanding the existing outcomes, that should be considered in future revisions of the ASCOF?*

7.3 Review definitions

A number of definitions were employed so as to identify systematic reviews for inclusion in the review (see Section 7.5 for full details of the review inclusion criteria).

7.3.1 Systematic review

A study was considered to be a systematic review if it presented a defined search strategy and it was clear that explicit criteria had been used by reviewers to select studies for inclusion.

7.3.2 Effectiveness and cost-effectiveness

While a number of systematic reviews refer to or examine social care, this review examined only those which specifically measured the outcomes of social care interventions. Reviews of research in which there were quantitative measures of the impact of social care interventions on outcomes from the four ASCOF domains described below were included. Other systematic reviews focused on social care were identified by searches, but were not examined further. Examples included reviews exploring the perspectives of social care service users or providers, or those examining factors that influence social care service use.

The review team also sought systematic reviews that contained research evidence useful to the development of cost-benefit and cost-effectiveness analyses of social care interventions. This evidence could consist of actual or estimated costs of service delivery, cost reported as an outcome, and findings specifically about cost-effectiveness.

7.3.3 Social care interventions

Social care interventions were defined as services which are or can be provided by non-healthcare professionals to support the population groups defined below in the activities of daily living.

Services that are intended to treat or address the condition which leads to a need for support in daily living, e.g. medicines, physiotherapy or cognitive behavioural therapy, were considered not to be social care interventions.

Whilst the value of moving towards a more integrated approach to health and social care services was recognised by the review team, services delivered by multi-disciplinary teams that included healthcare professionals were not, for the purposes of this review, considered to be social care interventions, unless it was reported explicitly that these teams were led by a social worker or occupational therapist. In many cases reviewers were hampered by a lack of detail from review authors about the providers involved in multi-disciplinary teams. However, many reviews indicated that providers were from different health disciplines. Some reviews were explicit that teams included as least some input from social care providers. Unless reviews were clear about the extent of input or role of social care providers, it remained unclear as to whether the social care input, or integrated care approach, was a key ingredient or influencing factor in the outcomes of the intervention.

7.3.4 Social care service users

These were defined for the purposes of the review as constituting the following five population groups.

- **Older people** – people aged 65 years and over.
- **Adults with mental health problems** – people aged 18 years or over with a diagnosed mental health problem, disorder or disability, including substance misuse and other addictions.

- **Adults with physical disabilities** – people aged 18 years or over with a physical impairment which has a substantial and long-term effect on their ability to carry out day-to-day activities.
- **Adults with learning disabilities** – people aged 18 years or over with a learning disability/intellectual impairment which has a substantial effect on their ability to carry our day-to-day activities.
- **Carers** – non-professional unpaid adult carers providing support to family or friends who require this help as they are in one of the above categories. For the purposes of this review, those who are paid for their services and those who work on behalf of a voluntary organisation fell outside of our definition of carers.

7.3.5 ASCOF outcomes

The four outcome areas relevant to this review were defined as follows:

Quality of life: (set out in ASCOF as 'Enhancing quality of life for people with care and support needs'). Reviewers sought findings about the following domains, the first eight of which are specified within ASCOF itself:

1. Control – people are able to manage their own support as much as they wish, so that are in control of what, how and when support is delivered to match their needs;
2. How people are treated.
3. Personal care – people are able to be clean and presentable.
4. Food and nutrition – people receive the right amount of food and drink.
5. Safety – people are able to be and feel safe.
6. Occupation – People are able to find employment when they want and to spend time doing things they value or enjoy.
7. Social participation – People are able to maintain a family and social life and contribute to community life, and avoid loneliness or isolation.
8. Accommodation – people have a clean and comfortable home.
9. Quality of life as a general or composite measure, examined by scales designed to capture overall function and well-being. These range from scales that are designed for people with specific conditions (e.g. the Diabetes Impact Measurement Scales – DIMS) to more generic forms, such as the Short Form 36.

Prevention: (set out in ASCOF as 'delaying and reducing the need for care and support'. Reviewers sought findings about the following three areas, all specified within ASCOF:

1. Delaying dependency – reducing inappropriate permanent admissions to residential and nursing care.
2. Regaining independence – re-ablement and rehabilitation services to support people to return home and live independently after discharge from hospital.
3. Reducing the need for intensive services – preventing the need for intensive social care services through the delivery of low-level social care services at an earlier stage in a client's trajectory.

For the third of these outcomes, reviewers included only those findings that related to interventions targeted at individuals at risk of specific conditions or events (e.g. falls prevention with older adults), or aimed at minimising disability or deterioration from established conditions. An exception to this was made for studies of interventions for older people. Here, reviews could be included even when the interventions under study were targeted at individuals who were healthy and active.

Satisfaction: (set out in ASCOF as 'ensuring that people have a positive experience of care and support'. Reviewers sought findings about the following four areas, all specified within ASCOF:

1. Service users' general satisfaction with care and support services.
2. Carers' experiences of involvement with care services.
3. Experiences of information and advice services.
4. Perceptions of whether services respect dignity and are sensitive to individual circumstances and preferences.

Safeguarding: (set out in ASCOF as 'safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm'. Reviewers sought findings about the following three areas, all specified within ASCOF:

1. Protection of adults who have health or social care needs (irrespective of whether or not those needs are being met by services).
2. Protection of adults who are at risk of significant harm.
3. Protection of adults who are unable to safeguard themselves as a result of their health or social care needs.

7.4 User involvement

The scope of this review was initially developed and commissioned by the DH Policy Research Programme. Input was sought from a number of research and policy experts in further developing the scope (see Acknowledgements). The initial systematic mapping stage of the review produced a map of the social-care interventions, populations and outcomes that had been examined in systematic reviews of research since 2000. This map was presented to a meeting convened by the DH that included research and social care policy experts. This group advised the review team on potential areas to prioritise for further in-depth investigation.

7.5 Identifying relevant reviews

7.5.1 Criteria for considering reviews

This section contains the criteria for all stages of this review. Definitions of all terms are contained in Section 7.3.

To be included in the map, reviews had to:

- be systematic reviews (with a defined search strategy and use of explicit criteria for inclusion of studies)
- report one or more summary statements of findings about the impact of social care services upon one or more adult social care populations
- present findings about one or more of the four ASCOF outcomes (quality of life, prevention, satisfaction and safeguarding)
- not be restricted to studies from non-OECD countries.
- be published in English, from 2000 onwards.

To be considered for the in-depth review, reviews had to:

- meet all of the criteria for inclusion in the systematic map
- be published from 2007 onwards
- report findings from social care populations other than carers.

During the course of the systematic map, an existing systematic review of systematic reviews was identified on interventions to support carers. This provided a rationale for focusing the in-depth review solely on the four other social care populations defined in Section 7.3 above.

Further screening criteria were applied at later stages in the in-depth review in order to identify the most trustworthy findings and to identify those review findings that help us to understand the scale of impact (see Section 7.6.1 and Section 7.6.2).

A more detailed account of all exclusion criteria and the stages at which they were applied, as well as the rationales behind them, is presented in Appendix 8.

Inclusion criteria were initially applied to titles and abstracts identified through searching. Where no abstract was available from bibliographic database records, an attempt was made to retrieve the full paper. Studies included on title and abstract alone were subsequently re-screened using the full paper.

At each stage of screening, reviewers independently screened studies in pairs until agreement between each pair on inclusion reached 90% or higher. Screening was otherwise done by one reviewer only.

7.5.2 Search sources

The following bibliographic databases were searched for pertinent systematic reviews:

- The Cochrane Library
- Database of Abstracts of Reviews of Effects (DARE)
- Health Technology Assessment (HTA)
- National Health Service Economic Evaluation Database (NHS EED)
- PubMed
- Embase
- PsycInfo
- ASSIA
- Social Science Citation Index
- IBSS
- Sociological Abstracts and Social Services Abstracts
- Social Care Online

These database searches were supplemented with searches by hand of:

- The website of the Social Policy Research Unit, University of York, http://php.york.ac.uk/inst/spru/pubs/adult.php
- The Journal of Elder Abuse and Neglect (2008-2011).

7.5.3 Search strategy

The comprehensive search strategy was developed in consultation with an information specialist with extensive experience of conducting searches for systematic reviews, and with a social care researcher from SCIE. Thesaurus terms were used to capture various concepts, which were combined in the following search string: (social care services OR social care outcomes) AND (social care populations) AND (review). Where no thesaurus term existed for a concept, free-text terms were used in the title and abstract field. Date restrictions were employed on some databases. Searches were carried out between 01/02/12 and 20/02/12. The reference lists of all reviews included in the map were screened for

further potentially includable reviews. One of the search strategies employed is presented as Appendix 7 to illustrate the extensive and comprehensive nature of the searches. Full details of the review's searches are available on request.

7.6 Quality assessment, data extraction and synthesis

7.6.1 Quality assessment

Only reviews meeting a minimum quality threshold were considered for data extraction. A quality assessment tool was employed which used two items taken from Elliot et al. (2001) that covered the following parameters:

- use of a comprehensive search strategy (of at least two bibliographic databases)
- Use of explicit inclusion criteria and presentation of these as part of a report's methods section.

7.6.2 Data extraction

A set of data extraction questions, developed specifically for this review, was used to extract and record information from each review regarding such items as the review's aims and the focus of its reported findings, in terms of social care populations, interventions, and outcomes. Reviewers were guided to look for summary statements, in which review authors had presented syntheses of study findings, either in a narrative or a numerical form. They then identified the numbers of studies used to create summary statements, and reviewed the authors' statements about the quality of these studies and their claims about impact. The reviewers also recorded whether they agreed with, or had concerns about the review authors' conclusions.

The data extraction tool also contained two further screening questions:

- One that guided reviewers to look at the study designs included in the review and to identify whether or not summary statements about impact came solely from studies that used a controlled trial design. Summary statements that were based in part on any other study design were excluded from this review's synthesis.
- One that asked reviewers whether meta-analysis had been performed for an ASCOF outcome and if the review's findings included evidence of an impact of social care interventions. If meta-analysis had been conducted and the review reported a positive impact, the reviewers were then guided to extract findings related to the size of impact and the author's discussions of intervention implementation.

Data extraction was conducted separately by two reviewers, who then met to compare their work. Disagreements were resolved through discussion and the arbitration of a third party where required.

7.6.3 Synthesising the evidence

The synthesis of evidence had two parts. The first aimed to identify effective interventions. The second aimed to identify the scale of impact of effective interventions.

Synthesis methods: identifying effective interventions

Following data extraction, the findings from reviews with similar topics were grouped and synthesised using a narrative approach. Where possible, these

syntheses presented review authors' pooling of data. Often, authors had presented findings in a narrative form. The individual syntheses for this review often needed to call upon findings from more than one review. As a result, this review's syntheses are themselves narrative in form.

For example, studies with quality of life outcomes were grouped first according to the type of social care intervention they measured (physical activity interventions, occupational therapy, assistive devices etc.) and then according to population group (e.g. learning disabilities, mental health, older people, people with long-term conditions).

Synthesis first involved the review team examining, for each review, both the direction of the findings and the extent and quality of the included studies as reported by the authors of each review. Any overlap between reviews was also noted. In the second stage of synthesis, the review team assessed the review authors' conclusions about their findings, asking whether or not the authors' conclusions seemed reasonable given what had been reported about the extent and quality of the evidence. The final stage of synthesis involved bringing together, where available, the findings of multiple reviews on particular intervention/outcome combinations (e.g. tai chi for preventing falls).

The direction of the findings was categorised as either a) evidence of positive impact, b) no evidence of difference between intervention and control, c) evidence of harm, or d) inconclusive.

a) The review authors generally concluded that there was **evidence of positive impact** when included studies demonstrated a statistically significant difference in outcomes favouring the intervention group, when compared to control groups.
b) The statement **no evidence of difference** indicates that statistical tests failed to demonstrate a significant difference in outcomes between those receiving social care interventions and those in control groups. The statement does not indicate an absence of evidence nor does it indicate equivalence between comparison groups. Most studies attempt to demonstrate a difference between groups; demonstrating equivalence, or no difference, is more difficult and is relatively rare, as this requires a much larger study. One challenge is the need to avoid the phenomenon known as 'vote counting', where reviewers report how many of a set of studies report statistically significant positive results, as compared with negative and unclear results. This can be misleading, as the counting fails to take into account other important dimensions, including the relative size of studies (larger studies should often be given more weight in a summary analysis), the direction of effect (if too small, a study can have insufficient statistical power to detect an effect but, alongside others, might be suggestive of a positive result), study quality and size of effect (Thomas et al., 2012). In an attempt to avoid these pitfalls, the reviewers used the authors' reports of meta-analyses wherever possible, and have reported the authors' descriptions of the direction, quality and size of studies where these were available.
c) Some reviews identified that interventions could cause harm; that is, negative outcomes were demonstrated for intervention groups when compared to control groups.
d) Evidence could be judged to be **inconclusive** for two reasons: either because there was insufficient evidence of a reasonable quality, or because there were conflicting findings among the studies contained in a review (i.e.

some included studies found positive evidence whilst others found no evidence of difference). Evidence was considered insufficient if conclusions were based solely either on: i) one study, even if described as high quality; or ii) three studies or fewer if these were described by authors as poor quality.

Synthesis methods: identifying the scale of impact of interventions

Following data extraction and additional screening, a smaller set of reviews remained that met all of the inclusion criteria for the in-depth review, but also contained meta-analytic scale of impact data.

The reports of these reviews were examined again to extract data related to scale of impact. Where possible, effect sizes were identified from meta-analyses and tabulated, along with the number of participants represented, and author's descriptions of intervention statistics (for example, the proportion of people finding work after experiencing an intervention, and the equivalent percentage for those experiencing a comparison condition).

The following steps were taken to identify the scale of impact:

a) Scale of effect. We examined effect sizes based on standard mean difference (SMD). In order to illustrate the relative scale of impact effect, sizes of 0.5 or more were characterised as the review's 'larger' effects, and effect sizes lower than 0.5 as the review's 'smaller' effects. Odds ratios were converted to standardised mean differences by multiplying their natural log by $\frac{\sqrt{3}}{\pi}$ as in section 9.4.6 of the Cochrane handbook (Higgins and Green, 2011). One other effect size was calculated from the p value and sample size given in the meta-analysis.
b) The trustworthiness of the evidence. We assessed the size and quality of the evidence base together with the soundness of the meta-analysis.

At this point in the review, authors' discussions of implementation were also sought and captured, but again only for this sub-set of reviewed interventions.

8. Details of studies encountered in the review

This chapter describes the process of identification of the 43 included reviews from within the pool of over 20,000 studies identified by our systematic searches. It provides:

- a narrative account of the flow of studies through the review
- a graphic representation of the flow of studies through the review.

8.1 Flow of studies through the review

The searches yielded a total of 21,280 citations. A large proportion of citations came from health (e.g. PubMed N=9,020, Embase, N=2,612) and social science index databases (e.g. SSCI N=3,976) (data available from report authors).

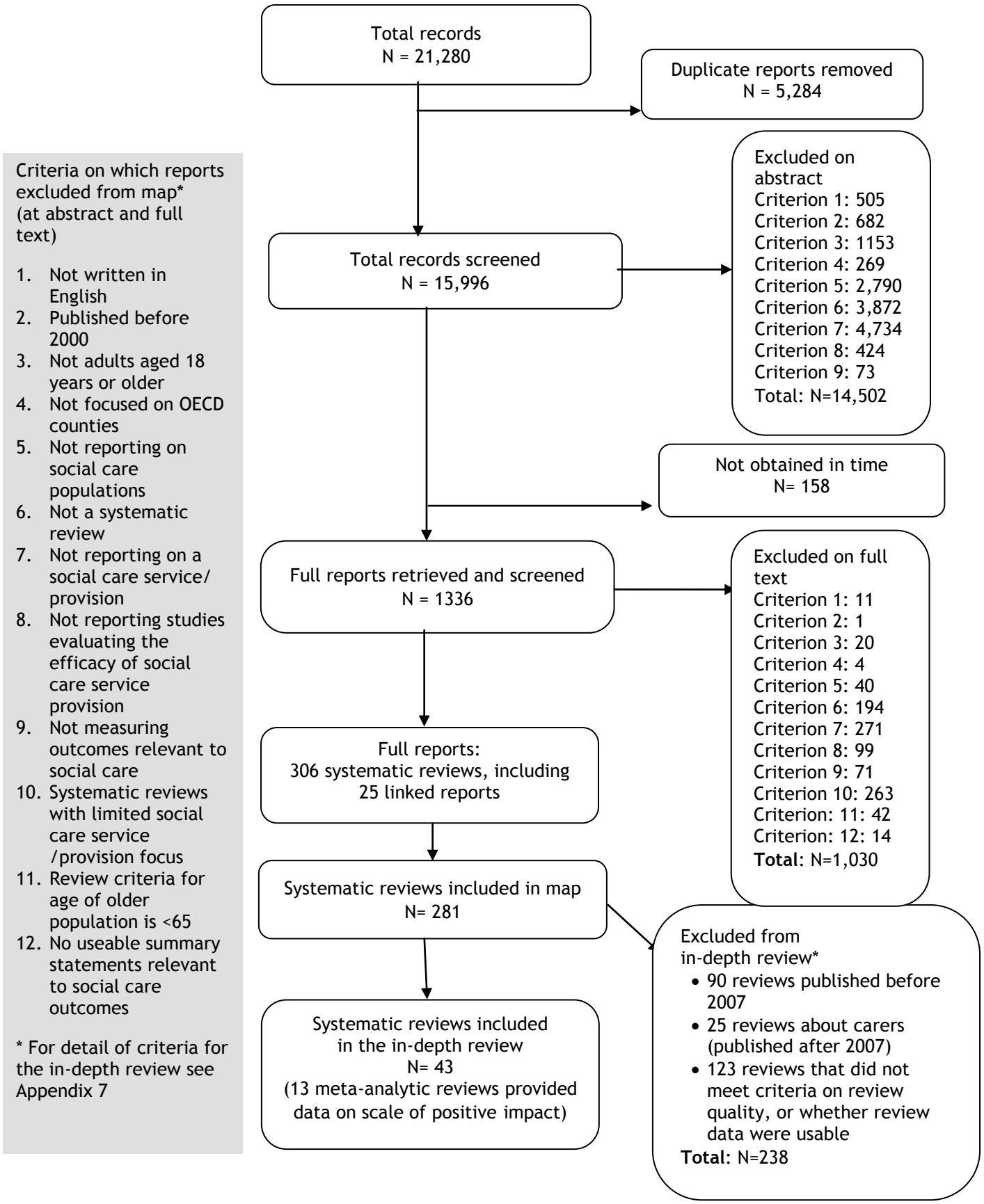
After removing 5,284 duplicates, the remaining 15,996 titles and abstracts were screened using the criteria described in Section7.5. The majority of papers were excluded at this stage (n= 14,502; 90.8%) because they did not have a social care focus (n=4,734) or because they were not reporting findings from a systematic review (n=3,872). A further 2,790 citations were also deemed ineligible because they did not focus on a population group that falls within the remit of social care provision (e.g. people living with physical and/or mental health conditions) .

Full reports were retrieved for those citations still potentially relevant for inclusion in the review (n=1,366). On closer inspection a further 1030 papers were excluded. The majority of reports were found either not to examine effectiveness of social care interventions (n=271), or to examine an intervention with a limited social care focus (n=263). A total of 194 reports did not meet the criteria to be considered a systematic review and 71 did not report ASCOF outcomes. A total of 158 reports were unobtainable within the timescale of this review (September, 2011 to May 2012)

During full-text screening, 25 papers were also found to be related to others, in that they described the same study, reporting on different aspects of it. These were therefore assigned as linked (secondary) reports. After this stage, 281 systematic reviews were coded using a tool designed to capture descriptive information specific to this review (see Section 7.6 for further details). When moving from the descriptive 'mapping' to the in-depth review, 115 reviews were identified for exclusion because they were published before 2007 (n=90) or focused exclusively on carers (n=25). The remaining 167 reports were appraised for quality and relevance. At the end of the process, a total of 43 systematic reviews were identified for inclusion in the synthesis. Within this set, 13 meta-analytic reviews reported positive impacts for social care interventions and were able to provide data on the scale of this impact.

Figure 8.1 summarises the flow of studies through the review and provides a breakdown of the exclusion criteria at both title and abstract and full document stages.

Figure 8.1 Flow of literature through the review



9. References

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Appendices

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Appendix 2: Characteristics of included systematic reviews with quality of life outcomes

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
Allison (2011)	To investigate the evidence for the effectiveness of different models of primary care-based follow-up after stroke	LTC: Stroke	**Intervention:** Needs assessment/ case management Use of a care manager, care co-ordination and stroke family support officer **Comparison:** No receipt of formal primary care-based follow-up	QoL ADL: physical functioning	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 4: QoL 4: ADL	Narrative synthesis	**Author conclusions about impact on quality of life** No evidence of difference **Do the reviewers agree with quality of life conclusions?** Yes
Arbesman (2011)	To evaluate the effectiveness of occupational therapy interventions in improving and maintaining participation and performance in paid and unpaid employment and	Mental health	**Intervention:** Occupational therapy: 1) Supported education 2) Supported education plus cognitive skills training	Engagement	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence	Narrative synthesis	**Author conclusions about impact on quality of life** Evidence of positive impact **Do the reviewers agree with quality of life conclusions?**

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	education for adults with severe mental illness		3) Programmes related to homemaking 4) Social and daily living skills 5)Supported employment **Comparison:** Not reported/ usual treatment/alternative treatment		**How many studies are quality of life Summary Statements based on?** Supported education: n=2 SE plus cognitive skills training: n=1 Programmes related to homemaking n=1 Social and daily living skills: 3 + 3 (although the functional adaptation skills training could be linked)		Yes: Improvements shown for 1) Supported education and 2) Social and daily living skills interventions No: Programmes related to homemaking: evidence inconclusive as findings from only 1 study relevant to this review
Baillet (2010)	To determine whether aerobic exercises in rheumatoid arthritis effectively improve pain, disease, quality of life, functional ability	LTC: Arthritis	**Intervention:** Physical activity: cardiorespiratory aerobic exercise **Comparison**: Usual care, alternative exercise, education programmes	QoL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?**	Meta-analysis	**Author conclusions about impact on quality of life** Evidence of positive impact **Do the reviewers agree with quality of life conclusions?**

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					5		Yes
Bartlo (2011)	To assess the evidence on the effectiveness of physical activity interventions for adults with intellectual disability	Learning disability	**Intervention:** Physical activity **Comparison:** Usual activity, alternative exercise, no exercise	QoL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 4 RCTs	Narrative synthesis	**Author conclusions about impact on quality of life** Evidence of positive impact **Do the reviewers agree with quality of life conclusions?** Yes: Agree with the authors that the level of evidence was moderate. All four RCTs were small, study quality was variable, and one found no evidence of difference between groups
Bender (2011)	To synthesise the evidence on a broad scope of internet-based	LTC: Pain	**Intervention:** Peer support/ peer education	ADL	**Design and quality** RCTs only – with QA **Author conclusions**	Narrative synthesis	Author conclusions about impact on

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	interventions for people in pain, and conduct a more in-depth analysis of internet based CBT interventions		Internet-based peer support Peer support with complementary and alternative medicine **Comparison:** Usual care, usual care and magazine, usual care and $10 gift voucher		**about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 1		quality of life Evidence of positive impact: Internet-based peer support No evidence of difference: Peer support with complementary alternative medicine **Do the reviewers agree with quality of life conclusions?** No: The evidence is inconclusive and low quality
Bond (2008)	To evaluate supported employment for clients with severe mental illness	Mental health	**Intervention:** Supported employment **Comparison:** Usual care and other types of vocational	Engagement: employment outcomes	**Design and quality** RCTs only – no QA **Author conclusions about trustworthiness of evidence** N/A – no assessment	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: employment

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
			rehabilitation		of quality **How many studies are quality of life Summary Statements based on?** 11		No evidence of difference: job tenure and other employment outcomes **Do the reviewers agree with quality of life conclusions?** Yes
Bradt (2011)	To compare the effects of dance/ movement therapy and standard care with standard care alone or standard care and other interventions in patients with cancer	LTC: Cancer	**Intervention:** Physical activity Dance/ movement therapy **Comparison:** No intervention (waitlist)	QoL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 1	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact **Do the reviewers agree with quality of life conclusions?** No: The authors are cautious in their conclusions, suggesting that the intervention 'may be beneficial'.

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							However, the conclusions are based on only one high-quality RCT so an inconclusive conclusion would be more appropriate
Chatterton (2010)	To illuminate who sings to people with dementia, and with what objectives and effects; to address the question of whether it is the singer or the singing which is effective	LTC-Dementia	**Intervention:** Music therapy **Comparison:** Not reported	Engagement: social functioning	**Design and quality** CTs and RCTs – no QA **Author conclusions about trustworthiness of evidence** N/A – no assessment of quality **How many studies are quality of life Summary Statements based on?** 2	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact **Do the reviewers agree with quality of life conclusions?** No: Evidence is inconclusive. Only 2 studies provide positive findings. These have not been quality appraised so we do not know how

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							much confidence we can have in their findings
Daniels (2008)	To assess the content, the methodological quality and the effectiveness of intervention studies for the prevention of disability in community-dwelling physically frail elderly	Older people	**Intervention:** Physical activity **Comparison:** Usual care or alternative intervention	ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 9	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes There are mixed findings – agree with the 'no overall evidence'
Dickson (2008)	To synthesise research evidence on the process and impact of vocational and training interventions that are employing	Mental health	**Intervention:** Supported employment **Comparison:** Usual care, alternative intervention	QoL ADL Engagement	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact No evidence of difference

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	recovery approaches in community-based adult mental health services				**How many studies are quality of life Summary Statements based on?** 7		Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes: Evidence is inconclusive. Overall study results show no difference or some cautious evidence of improvement in intervention groups
Dixon (2007)	To compare the efficacy and effectiveness of occupational therapy with placebo or no interventions (control group) in patients with Parkinson's disease	LTC: Parkinson's	**Intervention:** OT alone OT plus group physiotherapy **Comparator:** Not stated/physiotherapy alone	QoL ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Poor-quality evidence **How many studies are quality of life Summary Statements**	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes: Reviewers

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					based on? 2		concur with authors that evidence is inconclusive due to the small number and poor quality of included studies
Floyd (2010)	To test the hypothesis that group as compared to individual exercise interventions for breast cancer survivors would show greater improvement in QoL	LTC: Cancer	**Intervention:** Physical activity **Comparison:** not reported	QoL	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 12	Meta-analysis	Author conclusions about impact on quality of life Evidence of positive impact: meta-analysis confirms previous findings that exercise interventions have a positive impact on QoL No evidence of difference: no evidence that group exercise programmes were more effective than individual

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							programmes **Do the reviewers agree with quality of life conclusions?** Yes
Forbes (2008)	To examine whether physical activity programmes manage or improve cognition, function (e.g., activities of daily living, behaviour, depression and mortality compared to usual care in older persons with dementia?	LTC: Dementia	**Intervention:** Physical activity **Comparison:** Usual care	ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 2	Meta-analysis	Author conclusions about impact on quality of life Evidence inconclusive Do the reviewers agree with quality of life conclusions? Yes: Agree with authors that there is insufficient evidence of the effectiveness of physical activity programmes in managing or improving

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							function
Forster (2009)	To evaluate physical rehabilitation interventions directed at improving physical function among older people in long-term care	Older people	**Intervention:** Physical activity Other **Comparison:** Usual care or social/recreational activity or alternative exercise intervention	ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 36	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact **Do the reviewers agree with quality of life conclusions?** Yes: Although the review only provides a result for overall outcomes (it does not specify impact just on QoL but rather on 'various measures of physical and mental state'
Foster (2007)	To assess systematically the effects of lay-led self-management	LTC : Chronic conditions	**Intervention:** Peer support/ peer education **Comparison:**	QoL	**Design and quality** RCTs only – with QA **Author conclusions about**	Meta-analysis	Author conclusions about impact on quality of life

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	education programmes for people with chronic conditions		No lay led/ peer support (waiting list control group)		**trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 3		No evidence of difference **Do the reviewers agree with quality of life conclusions?** Yes
Gillison (2009)	To review the effect of exercise interventions on subjective quality of life (QoL) across adult clinical populations and well people, and to systematically investigate the impact of the exercise setting, intensity and type on these outcomes	LTC	**Intervention:** Physical activity exercise **Comparison:** No exercise	QoL ADL	**Design and quality** RCTs only – no QA **Author conclusions about trustworthiness of evidence** N/A – no assessment of quality **How many studies are quality of life Summary Statements based on?** 47	Meta-analysis	Author conclusions about impact on quality of life Evidence of positive impact for populations rehabilitating from LTC Evidence of harm for populations managing LTC **Do the reviewers agree with quality of life conclusions?**

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							Yes
Hall (2009)	To determine whether tai chi improves pain, disability, physical performance, and/or health-related quality of life in people with chronic musculoskeletal pain	LTC: Pain	**Intervention:** Physical activity Tai chi **Comparison:** Usual care, health education or waitlist control	QoL ADL: disability and physical functioning	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** QoL: 3 Activity/mobility: 4 for self-reported disability, 2 for physical functioning	Meta-analysis: self-reported disability and physical functioning Narrative synthesis: QoL	Author conclusions about impact on quality of life Evidence of positive impact: disability Evidence inconclusive: non-significant findings for QoL and physical functioning **Do the reviewers agree with quality of life conclusions?** Yes: Agree with the authors that overall 'The effect of Tai Chi on quality of life in people with musculoskeletal pain remains unclear'

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
Hand (2011)	To review the evidence regarding the effectiveness of community-based occupational therapy interventions in improving occupational outcomes for adults with selected chronic diseases	LTC: Arthritis	**Intervention:** Occupational therapy **Comparison:** Not reported	ADL Physical function	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 3 ADL 9 physical function	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: ADL No evidence of difference: physical function **Do the reviewers agree with quality of life conclusions?** No: Reviewers are concerned that no statistical information is provided to support the authors' claims about study findings. Little information is presented about the individual

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							RCTs.
Harling (2008)	To examine the available evidence regarding the effectiveness of tai chi in reducing falls and fear of falling in older adults	Older	**Intervention:** Physical activity: Tai chi **Comparison:** Either advice/ education, stretching sessions, or not specified	Dignity/ control/ respect Fear of falling	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 5	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: 5 high-quality RCTs demonstrating statistically significant impact **Do the reviewers agree with quality of life conclusions?** Yes
Hauser (2010)	To assess whether aerobic exercise has beneficial effects at post-treatment and at follow-up on the key domains of fibromyalgia syndrome (FMS)	LTC : Pain	**Intervention:** Physical activity: Aerobic exercise **Comparison:** Treatment as usual/ another active therapy/	QoL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence	Meta-analysis	Author conclusions about impact on quality of life Evidence of positive impact **Do the reviewers agree with quality of**

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	(pain, sleep, fatigue, depressed mood), compared with other therapies.		attention control		**How many studies are quality of life Summary Statements based on?** 25		**life conclusions?** Yes There are a large no. of studies in this review's meta-analysis. At latest follow-up, the confidence intervals JUST cross the line of no effect. Authors add a note of caution by using the word 'could'
Jain (2010)	To systematically examine whether biofield therapies might affect positive outcomes for health and reduction of disease symptoms	LTC: Pain LTC: Cancer	**Intervention:** Biofield therapies e.g. Reiki, healing touch **Comparison:** Mock or placebo-controlled treatment group	QoL	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements**	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes: For both types of patient,

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					based on? Pain: 3 Cancer: 3		we agree that evidence is limited, or inconclusive
Kong Jae (2010)	To evaluate all available randomised sham-controlled trials of acupuncture as an adjunct to mainstream stroke rehabilitation	LTC: Stroke	**Intervention:** Acupuncture **Comparison:** 'Sham acupuncture'	QoL ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 5	Meta-analysis	Author conclusions about impact on quality of life No evidence of difference **Do the reviewers agree with quality of life conclusions?** Yes
Lee (2007)	To evaluate data from controlled clinical trials testing the effectiveness of tai chi for treating rheumatoid arthritis	LTC: Arthritis	**Intervention:** Physical activity: Tai chi **Comparison:** Education plus stretching exercise/ usual activity	QoL ADL Functional index	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: QoL outcomes Evidence inconclusive:

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					quality of evidence **How many studies are quality of life Summary Statements based on?** 1		overall, but this includes QoL and other outcomes **Do the reviewers agree with quality of life conclusions?** Yes: Inconclusive for QoL. Only 1 study and deemed low quality
Legg (2007)	To determine whether occupational therapy focused specifically on personal activities of daily living improves recovery for patients after stroke	LTC: Stroke	**Intervention:** Occupational therapy **Comparison:** No routine input	ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 8	Meta-analysis	Author conclusions about impact on quality of life Evidence of positive impact: activity/ mobility **Do the reviewers agree with quality of life conclusions?** Yes

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
Lin (2011)	To determine the effects of yoga on psychological health, quality of life, and physical health of patients with cancer	LTC: Cancer	**Intervention:** Physical activity: yoga **Comparison:** Waitlist control groups or supportive therapy groups	QoL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 3	Meta-analysis	Author conclusions about impact on quality of life Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes
Lowe (2009)	To review the best available evidence of physical activity as a supportive care intervention in palliative cancer patients	LTC: Cancer	**Intervention:** Physical activity **Comparison:** Not reported	QoL ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?**	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: QoL No evidence of difference: activity/mobility Evidence inconclusive:

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					1		overall **Do the reviewers agree with quality of life conclusions?** Yes: We would argue that evidence is inconclusive. There is insufficient evidence with only 1 RCT, of low quality
Mayo-Wilson (2008)	To assess the effectiveness of personal assistance for adults with physical and intellectual impairments, and the impacts of personal assistance on others, compared to other	Physical and learning disabilities	**Intervention:** Personal assistance **Comparison:** Any other form of care	QoL ADL Engagement	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements**	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive **Do the reviewers agree with quality of life conclusions?** Yes: Evidence based on only two studies with

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	interventions.				**based on?** 2		concerns about quality of evidence
Mont-gomery (2008)	To assess the effectiveness of personal assistance programmes for older adults with impairments, and the impacts of personal assistance on partners, families and carers, compared to other interventions	Older people	**Intervention:** Personal assistance **Comparison:** Any other form of care	QoL ADL Engagement	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** High-quality evidence **How many studies are quality of life Summary Statements based on?** 4	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: activity/mobility No evidence of difference: engagement **Do the reviewers agree with quality of life conclusions?** Yes: Agree with authors' cautious conclusion that the intervention 'may' help
Olazaran (2010)	To evaluate the best evidence on the effects of non-	LTC: Alzheimer's disease	**Intervention:** 1) ADL training 2) Enriched group	QoL ADL	**Design and quality** RCTs only – with QA **Author conclusions**	Meta-analysis	Author conclusions about impact on quality of life

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	pharmacological therapies in people with Alzheimer's disease and related disorders		cognitive stimulation 3) Multi-component interventions aimed at adapting home environment and providing continuous counselling. **Comparison:** 1 and 2) Usual care 3) Not reported		**about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** QoL: 2 Activity/mobility: 7		Evidence of positive impact: activity/mobility Evidence inconclusive: QoL **Do the reviewers agree with quality of life conclusions?** Yes
Padilla (2011)	To examine the effect of interventions designed to modify the activity demands of the occupations of self-care, work, leisure and social participation for people with Alzheimer's disease	LTC: Alzheimer's disease	**Intervention:** Assistive devices environmental modifications and adaptive equipment Occupational therapy **Comparison:** Usual care	QoL ADL	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?**	Narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact: consistent positive effects **Do the reviewers agree with quality of life conclusions?** Yes: Agree with the authors that

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					Assistive devices: 4 OT: 4		the interventions tested in these studies hold promise
Schuch (2011)	A systematically review the impact of exercise on quality of life	Mental health	**Intervention:** Physical activity **Comparison:** Usual care	QoL ADL: physical function Engagement: social function	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 4	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive: the small number of studies and methodological weaknesses make it difficult to make definitive conclusions **Do the reviewers agree with quality of life conclusions?** Yes
Tungpunkom (2012)	To review the effects of life skills programmes	Mental health	**Intervention:** Occupational Therapy	QoL ADL Engagement	**Design and quality** CTs and RCTs – with QA	Narrative synthesis	Author conclusions about impact on

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
	compared with standard care or other comparable therapies for people with chronic mental health problems		**Comparison:** Standard care, support groups		**Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** Activity/mobility: 1 QoL: 1 Engagement: 1		quality of life No evidence of difference **Do the reviewers agree with quality of life conclusions?** Yes
Tuntland (2009)	To assess the benefits of assistive technology for adults with rheumatoid arthritis in terms of improving functional ability and reducing pain	LTC: Rheumatoid arthritis	**Intervention:** Assistive devices **Comparison:** Use of a standard bottle	ADL	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements**	Narrative synthesis	Author conclusions about impact on quality of life Evidence inconclusive. Very limited evidence **Do the reviewers agree with quality of life conclusions?**

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
					based on? 1		Yes
Vasse (2010)	To examine the effects of non-pharmacological interventions in residential and nursing homes on: 1) communication between residents with dementia and care staff, and 2) the neuropsychiatric symptoms of residents with dementia	LTC: Dementia	**Intervention:** A communicative session or intervention for residents carried out by a trained specialist or staff member at a 'set-time session' **Comparison:** Usual activities, or conversation during an unstructured activity	Engagement	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are quality of life Summary Statements based on?** 10	Meta-analysis and narrative synthesis	Author conclusions about impact on quality of life Evidence of positive impact No evidence of difference Do the reviewers agree with quality of life conclusions? No: The majority of studies (8/10) show no effect of set-time interventions on communication, including those studies that had the highest scores for total quality. The meta-analysis of the 5 higher-quality studies

Review	Aims	Population	Social care intervention/ comparison	Quality of life outcomes	Included studies	Review methods	Conclusions
							shows no evidence of effect. The authors, however, seem to focus on 2 studies that did demonstrate positive effect (single task interventions)

Appendix 3: Characteristics of included systematic reviews with prevention outcomes

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
Allison (2011)	To investigate the evidence for the effectiveness of different models of primary care-based follow-up after stroke	LTC: Stroke	**Intervention:** Needs assessment/ case management **Comparison:** Standard care	**Illness/ events:** Mood	**Design and quality**: RCTs only – with QA **Date range:** 1997-2006 **Countries:** UK, USA **How many studies are prevention Summary Statements based on?** 6	Narrative synthesis	**Author conclusions about impact on prevention** Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes: Only 1 small weak paper out of six showed positive impact; the remaining 5, which were larger and higher-quality, showed no evidence of difference

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
Bender (2011)	To synthesise the evidence on a broad scope of internet-based interventions for people in pain, and conduct a more in-depth analysis of internet-based CBT interventions	LTC: Pain	**Intervention:** Peer support/ peer education **Comparison:** Usual care	**Illness/events:** Health distress	**Design and quality:** RCTs only – with QA **Date range:** 2002-2008 **Countries:** USA **How many studies are prevention Summary Statements based on?** 2	Narrative synthesis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** Yes: Agree with the authors that there is 'limited but promising' evidence
Bradt (2011)	To compare the effects of dance/movement therapy and standard care with standard care alone or standard care and other interventions in	LTC: Cancer	**Intervention:** Physical activity Dance/ movement therapy **Comparison:** No intervention	**Illness/events:** Mood, distress and mental health	**Design and quality:** RCTs only – with QA **Date range:** 1989-2005 **Countries:** USA	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference **Do the reviewers**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	patients with cancer		(waitlist)		**How many studies are prevention Summary Statements based on?** 2		**agree with prevention conclusions?** Yes
Costello (2008)	To investigate the effectiveness of fall prevention programmes for community-dwelling older adults	Older People	**Intervention:** Needs assessment/ case management Assistive devices Education, e.g. advice on footwear, fall risks, how to live more safely **Comparison:** Not specified	**Illness/events:** No. of falls Fall rates No. of fallers	**Design and quality:** RCTs only – no QA **Date range:** 1999-2003 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 2	Narrative synthesis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** Yes: No, as the quality of included studies is not known

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
Forbes (2008)	To examine whether physical activity programmes manage or improve cognition, function (e.g., ADLs), behaviour, depression and mortality, compared to usual care in older persons with dementia	LTC: Dementia	**Intervention:** Physical activity **Comparison:** Usual care	**Illness/events:** Depression	**Design and quality:** RCTs only – with QA **Date range:** 2007 **Countries:** France **How many studies are prevention Summary Statements based on?** 1	Meta-analysis	**Author conclusions about impact on prevention** Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes: Agree with authors – insufficient evidence of effectiveness of physical activity on depression in older adults with dementia
Foster (2007)	To assess systematically the effects of lay-led self-management education	LTC : Chronic conditions	**Intervention:** Peer support/ peer education	**Illness/events:** Depression Anxiety Psychological well-being	**Design and quality:** RCTs only – with QA	Meta-analysis	**Author conclusions about impact on prevention** Evidence of

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	programmes for people with chronic conditions		Comparison No intervention/usual care	Health distress Service use: Physician/general practitioner visits Days/nights spent in hospital	**Date range:** 1991-2007 **Countries:** UK, USA, China, Netherlands **How many studies are prevention Summary Statements based on?** Illness/events: Depression, anxiety and psychological well-being, health distress = 9 Service use: Days/ nights spent in hospital = 6 Physician/ GP visits = 9		positive impact for illness/ events – depression and anxiety No evidence of difference for illness/events – psychological well-being No evidence of difference for number of visits to physician/ GP; number of days spent in hospital Note: The interventions did not have any clinically important effect on depression or anxiety at six months follow-up

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							Do the reviewers agree with prevention conclusions? Yes
Hand (2011)	To review the evidence regarding the effectiveness of community-based occupational therapy interventions in improving occupational outcomes for adults with selected chronic diseases	LTC: Arthritis	**Intervention:** Occupational therapy **Comparison:** Not reported	**Illness/events:** Psychological health	**Design and quality:** RCTs only – with QA **Date range:** 2000-2005 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 2	Narrative synthesis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** No: Reviewers are concerned about the quality of studies, the relevance of evidence for OT, and that no statistical

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							information is provided to support the authors' claims about study findings
Harling (2008)	To examine the available evidence regarding the effectiveness of tai chi in reducing falls and fear of falling in older adults	Older people	**Intervention:** Physical activity: Tai chi **Comparison:** Either advice/ education, stretching sessions, or not specified	**Illness/events:** Falls	**Design and quality:** RCTs only – with QA **Date range:** 1996-2005 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 6	Narrative synthesis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** Yes: All 6 included studies indicated positive effects; 3 were statistically significant

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
Hauser (2010)	To assess whether aerobic exercise has beneficial effects at post-treatment and at follow-up on the key domains of fibromyalgia syndrome (pain, sleep, fatigue, depressed mood), compared with other therapies	LTC : Pain	**Intervention:** Physical activity: Aerobic exercise **Comparison:** Treatment as usual/ another active therapy/ attention control	**Illness/events:** Depressed mood	**Design and quality:** RCTs only – with QA **Date range:** 1996-2009 **Countries:** Spain, Turkey, USA, UK, Canada, Brazil, Norway **How many studies are prevention Summary Statements based on?** 17	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact: Depressed mood. **Do the reviewers agree with prevention conclusions?** Yes
Hoey (2008)	To identify models of peer support for cancer patients and systematically review the	LTC : Cancer	**Intervention:** Peer support/ peer education **Comparison:**	**Illness/events:** Psychological distress	**Design and quality:** RCTs – with QA **Date range:** 1999-2001 **Countries:** USA	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	evidence of their effectiveness in improving psychosocial adjustment		Usual care, professional support, waitlist		**How many studies are prevention Summary Statements based on?** 3		**Do the reviewers agree with prevention conclusions?** Yes
Jain (2010)	To systematically examine whether biofield therapies might affect positive outcomes for health and reduction of disease symptoms.=	LTC : Pain	**Intervention:** Biofield therapies e.g. Reiki, healing touch **Comparison:** Mock or placebo-controlled treatment group	**Illness/events:** Depression Anxiety Negative mood	**Design and quality:** nRCTs and RCTs – with QA **Date range:** 1991-2005 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 8	Narrative synthesis	**Author conclusions about impact on prevention** Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
Lee (2007)	To evaluate data from controlled clinical trials testing the effectiveness of tai chi for treating rheumatoid arthritis	LTC: Arthritis	**Intervention:** Physical activity: Tai chi **Comparison:** Education plus stretching exercise/ usual activity	**Illness/events:** Depression Mood	**Design and quality:** RCTs – with QA **Date range:** 2005 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 2	Narrative synthesis	**Author conclusions about impact on prevention** Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes: Limited low- quality evidence
Legg (2007)	To determine whether occupational therapy focused specifically on personal activities of daily living improves recovery for patients after	LTC: Stroke	**Intervention:** Occupational therapy **Comparison:** No routine input	**Illness/events:** Depression Mood **Service use:** Use of institutional care	**Design and quality:** RCTs only – with QA **Date range:** 1995-2001 **Countries:** UK, Hong Kong	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact: the odds of a poor outcome were significantly lower in the

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	stroke				**How many studies are prevention Summary Statements based on?** Service use: 3 Mood: 2		participants who received occupational therapy Evidence inconclusive: use of institutional care: data were incomplete and available for only a few studies and therefore the results from pooled analysis were inconclusive Mood: There was a non-significant benefit in mood or distress scores for participants and carers **Do the**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							reviewers agree with prevention conclusions? Yes
Leung (2011)	To review and update the current evidence on using tai chi as an intervention for balance improvement and falls reduction	Older people	**Intervention:** Physical Activity: Tai chi **Comparison:** No treatment/ physiotherapy exercise/ education	**Illness/events:** No. of falls	**Design and quality:** RCTs – with QA **Date range:** 2003-2007 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 5	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact (health of older adults) Evidence of harm (frail older adults) Note: Positive impact was found when compared with no intervention; when compared with other exercise, the

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							intervention findings were not significant at 26 and 52 weeks **Do the reviewers agree with prevention conclusions?** Yes
Lin (2011)	To determine the effects of yoga on psychological health, quality of life, and physical health of patients with cancer	LTC: Cancer	**Intervention:** Physical activity: Yoga **Comparison:** Waitlist control groups or supportive therapy groups	**Illness/events:** Depression Anxiety Distress	**Design and quality:** RCTs only – with QA **Date range:** 2000-2009 **Countries:** Not reported **How many studies are prevention Summary Statements**	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** Yes

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
					based on? 8		
Mayo-Wilson (2008)	To assess the effectiveness of personal assistance for adults with physical and intellectual impairments, and the impacts of personal assistance on others, compared to other interventions.	Physical and Learning disabilities	**Intervention:** Personal assistance **Comparison:** Any other form of care	**Illness/events:** Physical health Mortality **Service use:** Long-term institutional care	**Design and quality:** nRCTs and RCTs – with QA **Date range:** 1983, 2007 **Countries:** USA, not reported **How many studies are prevention Summary Statements based on?** Long-term institutional care: 1 Physical health: 2	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference: long-term service use Evidence inconclusive: illness/events **Do the reviewers agree with prevention conclusions?** Yes: For illness/events outcomes No: For use of long-term institutional care – authors

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							make quite a strong claim, given that this is based on 1 study only
Michael (2010)	To describe the benefits and harms of interventions that could be used by primary care practitioners to prevent falling among community-dwelling older adults	Older people	**Intervention:** Home-hazard modification Two of the interventions also included behavioural counselling **Comparison:** Usual care or a social control	**Illness/events:** Risk of falling Number of falls Increased falls	**Design and quality:** RCTs only – with QA **Date range:** 2001-2005 **Countries:** New Zealand, Australia **How many studies are prevention Summary Statements based on?** 3	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference: There was no evidence of increased falls or fallers, based on the 3 fair-quality trials that included home-hazard modification interventions **Do the reviewers agree with prevention conclusions?** No, the lack of

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							clarity around the impact of this intervention renders the evidence inconclusive
Mont-gomery (2008)	To assess the effectiveness of personal assistance programmes for older adults with impairments, and the impacts of personal assistance on partners, families and carers, compared to other interventions	Older people	**Intervention:** Personal assistance **Comparison:** Any other form of care	**Illness/events:** Mental health Depressive symptoms Personal adjustment Emotional health **Service use:** Use of institutional care	**Design and quality:** RCTs – with QA **Date range:** 1983-2007 **Countries:** USA, not reported **How many studies are prevention Summary Statements based on?** Mental health: 2 Service use: 1	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference: service use Evidence inconclusive: depressive symptoms, personal adjustment, emotional health **Do the reviewers agree with prevention**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							conclusions? Yes: Evidence is inconclusive for mental health outcomes No: Definitely concerned about conclusion on service use as strong claim based on 1 study only
O'Brien (2010)	To examine the safety and effectiveness of aerobic exercise interventions on immunologic, virologic, cardiopulmonary and psychological outcomes and strength, weight, and	LTC: HIV	**Intervention:** Physical activity: Aerobic exercise **Comparison:** Waitlist/control	**Illness/events:** Psychological status (depression-dejection symptoms)	**Design and quality:** RCTs only – with QA **Date range:** 1990-2001 **Countries:** Not reported **How many studies are prevention**	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	body composition in adults living with HIV				**Summary Statements based on?** 2		Yes
Olazaran (2010)	To evaluate the best evidence on the effects of non-pharmacological therapies in people with Alzheimer's disease and related disorders (ADRD).	LTC: Alzheimer's disease	**Intervention:** 1) Multi-component enriched group cognitive stimulation 2) Exercise and behaviour management **Comparison:** 1 and 2) Usual care	**Illness/events:** Mood	**Design and quality:** RCTs only – with QA **Date range:** 1990-2004 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 3	Meta-analysis	**Author conclusions about impact on prevention** 1) Evidence of positive impact 2) Evidence inconclusive **Do the reviewers agree with prevention conclusions?** 1) Yes: Sound meta-analytic evidence showing a positive impact of enriched group cognitive stimulation

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							2) Yes: Due to lack of studies the exercise and behaviour management intervention cannot currently be recommended
Padilla (2011)	To examine the effect of interventions designed to modify the activity demands of the occupations of self-care, work, leisure, and social participation for people with Alzheimer's disease	LTC: Alzheimer's disease	**Intervention:** Assistive devices environmental modifications and adaptive equipment Occupational therapy **Comparison:** Usual care	**Illness/events:** Depression Anxiety	**Design and quality:** CTs and RCTs – with QA **Date range:** 2003 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 1	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference **Do the reviewers agree with prevention conclusions?** No: Although the single study providing evidence on this outcome was of high quality, reviewers feel

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							that further evidence is needed to draw conclusions
Salter (2010)	To examine the impact of social support interventions on psychological distress, depression or mood status in individuals with stroke	LTC: Stoke	**Intervention:** Social support – stroke-specific intervention that stated as part of the primary study objective the provision, creation or enhancement of support (social, emotional, familial) for individuals with stroke **Comparison:** Usual care	**Illness/events:** Depression Distress Mood status	**Design and quality:** RCTs only – with QA **Date range:** 1997-2006 **Countries:** UK, USA, Australia, Canada **How many studies are prevention Summary Statements based on?** 8	Narrative synthesis	**Author conclusions about impact on prevention** Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes: Agree that inconclusive – but think authors overstate the significance of the 1 trial with positive findings, particularly as this trial was

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
							one of the few which did not report concealment of allocation
Sawka (2010)	To identify interventions proven in randomised controlled trials to reduce the risk of hip fracture in elderly nursing home residents.]	Older people	**Intervention:** Assistive devices: Two-sided hard-shell hip protectors **Comparison:** Usual care	**Illness/events:** Hip fractures	**Design and quality:** RCTs only – with QA **Date range:** 1997-2007 **Countries:** Not reported **How many studies are prevention Summary Statements based on?** 5	Meta-analysis	**Author conclusions about impact on prevention** Evidence of positive impact **Do the reviewers agree with prevention conclusions?** Yes
Tung-punkom (2012)	To review the effects of life skills programmes compared with	Mental health	**Intervention:** Life skills programmes	**Illness/events:** Mental state	**Design and quality:** nRCTs and RCTs – with QA	Narrative synthesis	**Author conclusions about impact on prevention**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
	standard care or other comparable therapies for people with chronic mental health problems		**Comparison:** Peer support/ OT/ Standard care		**Date range:** 2003 **Countries:** USA **How many studies are prevention Summary Statements based on?** 1		Evidence inconclusive **Do the reviewers agree with prevention conclusions?** Yes
Yohannes (2010)	To examine systematically the impact of education programmes, cognitive behavioural therapy (CBT), exercise and depression care on depressive symptoms in older patients with osteoarthritis	LTC – Arthritis	**Intervention:** Physical activity **Comparison:** Waitlist/ control/ other exercise	**Illness/events:** Depression	**Design and quality:** nRCTs and RCTs – with QA **Date range:** 1999-2008 **Countries:** Not reported **How many studies are prevention Summary Statements**	Narrative synthesis	**Author conclusions about impact on prevention** No evidence of difference: studies that investigated the benefits of exercise interventions on depression are inconclusive **Do the**

Review	Aims	Population	Social care intervention/ comparison	Prevention outcomes	Included studies	Review methods	Conclusions
					based on? 7		**reviewers agree with prevention conclusions?** Yes

Appendix 4: Characteristics of included systematic reviews with satisfaction with services outcomes

Review	Aims	Population	Social care intervention/ comparison	Satisfaction outcomes	Included studies	Review Methods	Conclusions
Allison (2011)	To investigate the evidence for the effectiveness of different models of primary care-based follow-up after stroke	LTC: Stroke	**Intervention:** Needs assessment/case management Use of a care manager, care co-ordination and stroke family support officer **Comparison:** No receipt of formal primary care-based follow-up	Satisfaction	**Design and quality** RCTs only – with QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are satisfaction Summary Statements based on?** 4	Narrative synthesis	**Author conclusions about impact on satisfaction** Evidence of positive impact No evidence of difference **Do the reviewers agree with satisfaction conclusions?** No. Overall, no statistically significant differences in satisfaction were seen between study groups. We would judge this as inconclusive evidence (due to small numbers of studies).
Legg (2007)	To determine whether occupational therapy focused specifically on	LTC: Stroke	**Intervention:** Occupational therapy	Satisfaction	**Design and quality** RCTs only – with	Meta-analysis	**Author conclusions about impact on satisfaction** Evidence inconclusive:

Review	Aims	Population	Social care intervention/ comparison	Satisfaction outcomes	Included studies	Review Methods	Conclusions
	personal activities of daily living improves recovery for patients after stroke		**Comparison:** No routine input		QA **Author conclusions about trustworthiness of evidence** Concerns about quality of evidence **How many studies are satisfaction Summary Statements based on?** 2		Data incomplete and available for only a few studies and therefore the results from pooled analysis were inconclusive **Do the reviewers agree with satisfaction conclusions?** Yes
Mayo-Wilson (2008)	To assess the effectiveness of personal assistance for adults with physical and intellectual impairments, and the impacts of personal assistance on	People with physical and Intellectual disabilities	**Intervention:** Personal assistance **Comparison:** Any other form of care	Satisfaction	**Design and quality** CTs and RCTs – with QA **Author conclusions about trustworthiness**	Narrative synthesis	**Author conclusions about impact on satisfaction** Evidence of positive impact No evidence of difference **Do the reviewers agree**

Review	Aims	Population	Social care intervention/ comparison	Satisfaction outcomes	Included studies	Review Methods	Conclusions
	others, compared to other interventions				**of evidence** Concerns about quality of evidence **How many studies are satisfaction Summary Statements based on?** 2		**with satisfaction conclusions?** Yes: Agree with authors' cautious conclusions that intervention 'may' increase satisfaction
Montgomery (2008)	To assess the effectiveness of personal assistance programmes for older adults with impairments, and the impacts of personal assistance on partners, families and carers, compared to other	Older people	**Intervention:** Personal assistance **Comparison:** Any other form of care	Satisfaction	**Design and quality** CTs and RCTs – with QA Author conclusions about trustworthiness of evidence High-quality evidence **How many studies are**	Narrative synthesis	**Author conclusions about impact on satisfaction** Evidence of positive impact **Do the reviewers agree with satisfaction conclusions?** Yes: Agree with cautiousness of authors' conclusions about 'possible' increases in satisfaction

Review	Aims	Population	Social care intervention/ comparison	Satisfaction outcomes	Included studies	Review Methods	Conclusions
	interventions				**satisfaction Summary Statements based on?** 4		

Appendix 5: Characteristics of included systematic reviews with safeguarding outcomes

Review	Aims	Population	Social Care Intervention/ comparison	Safeguarding Outcomes	Included studies	Review Methods	Conclusions
Lindbloom (2007)	To identify types of mistreatment, risk factors and markers for mistreatment, and intervention aimed at reducing the incidence of elder mistreatment	Older people	**Intervention:** Educational programme for nursing home employees aimed at improving the management of abuse of cognitively impaired elderly adults **Comparison:** Untrained staff	Nursing home staff attitudes towards elderly/ knowledge of elder abuse	**Design and quality** CTs and RCTs – no QA **Author conclusions about trustworthiness of evidence** n/a- no assessment of quality **How many studies are safeguarding Summary Statements based on?** 1	Narrative synthesis	**Author conclusions about impact on safeguarding** Evidence of positive impact **Do the reviewers agree with safeguarding conclusions?** No: On the strength of only one RCT, reviewers feel evidence is inconclusive

Appendix 6: Summary of scale of impact evidence

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
Review: Bond (2008) **What is the scale of impact findings?** • Integrated mental health and employment services had larger impacts on social participation (employment) for people with severe mental illness • Larger effect sizes **How trustworthy is the evidence?** Caution required: • Large sample size • Statistical significance not verified • Heterogeneity not reported • Study quality not known	**Outcomes:** Social participation: a) employment rates b) rates of working 20+ hours c) days to first job d) duration of longest held employment e) annualised number of weeks worked **Statistical information** **Effect size:** a) 0.83 – unweighted mean IPS 61% vs control 23% b) 0.67 – weighted mean IPS 43.6% vs controls 14.2% c) weighted mean IPS 138 days vs control 206 days d) weighted mean IPS	**Number of studies:** 11 **Number of participants:** 2,594 Design: RCTs **Quality:** Not assessed **Countries:** US, Canada, Europe, Australia **Date range:** 1996-2008	**Content/components:** Individual Placement and Support (IPS) core principles: 1) Focus on competitive employment 2) Eligibility based on consumer choice 3) Rapid job search 4) Integration of mental health and employment services 5) Attention to consumer preference in job search 6) Individualised job support 7) Personalised benefits counselling **Provider:** Not stated **Setting of delivery:** Not	**Details:** Adults with severe mental illness recruited from mental health centres who were unemployed at the time of study admission and expressed a desire to work **Age:** Not stated **Gender:** Not stated **Ethnicity:** Not stated **Other:** Not stated	Undoubtedly number of hours worked per week is influenced by rules governing receipt of disability payments and Medicaid eligibility. Less than 1% of IPS participants left disability rolls during the follow-up period. The average for IPS of 20 weeks to first job is somewhat of a surprise. Time to first job strongly affects longitudinal competitive employment outcomes; in most studies, the large majority who work at all do so in the first six months. Thus, this might be an area for model improvement, which we speculate might require better job development strategies . In addition, the use of the vocational profile to help identify job types and work settings that match

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
How much do we know about the intervention? • Good description on core principles of the intervention • Limited information on the content and context of intervention • No information on provider, setting, length or intensity • No demographic details on the target population	22.0 weeks vs controls 16.3 weeks e) weighted mean IPS 12.1 weeks vs controls 4.8 weeks **Size of effect:** a) Larger b) Larger c) Not stated d) Not stated e) Not stated Statistically significant? Not stated Significant heterogeneity? Not stated **Measured at:** 6-24 months (mean 18 months)		stated **Intervention duration:** Not stated **Intervention intensity:** Not stated **Comparison group:** Usual care		the individual's preferences, skills, and experiences is another area that may help improve and speed up the job seeking process and increase job tenure as well.
Review: Baillet (2010) **What is the scale of**	**Outcome:** QoL	**Number of studies:** 5	**Content/components:** Supervised or home-based cardiorespiratory	**Details:** Adult patients with rheumatoid	Cardiorespiratory aerobic exercise conditioning had a positive impact on

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
impact findings? • Aerobic exercise interventions had a smaller impact on the general QoL of people with rheumatoid arthritis • Smaller effect size reaching significance **How trustworthy is the evidence?** • Fair sample size • No significant heterogeneity • Study quality low **How much do we know about the intervention?** • Fair description of the intervention • No information on providers/supervisors of exercises • Disease duration varied among the participants	**Statistical information** **Effect size:** 0.39 (95% CI 0.23, 0.56, p = 0.0001; I^2=45%; p=0.12) **Size of effect:** Smaller **Statistically significant?** Yes **Significant heterogeneity?** No **Measured at:** Not stated	**Number of participants:** 586 **Design:** RCTs **Quality:** Low **Countries:** Canada, France, Sweden, The Netherlands **Date range:** 1995-2009	aerobic exercise (exercise performed at 50–80% of the maximal heart rate.) **Provider:** Not stated **Setting of delivery:** Not stated (except for home-based studies) **Intervention duration:** 4–104 weeks **Intervention intensity:** 10–75 minutes 2–5 times a week **Comparison group:** Usual care/education/non-aerobic exercise	arthritis. Disease duration 1-16 years. **Age:** 44–68 years **Gender:** 46.7–100% women **Ethnicity:** Not stated **Other:** Not stated	quality of life when performed < 3 times per week, whereas it had no effect when performed ≥ 3 times per week. The duration of the individual session and exercise supervision also had an impact on quality of life. If the duration of the exercise session was >60 minutes there was a positive impact, whereas exercise sessions lasting ≤ 60 minutes had no effect. If exercise was supervised there was a positive impact, but there was no effect if the exercise programme was home based and unsupervised.
Review: Floyd (2010) **What are the scale of**	Outcome: QoL	**Number of studies:** 12	**Content/components:** Range of group exercise	**Details:** Women survivors of	Group exercise interventions did not

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
impact findings? • Exercise interventions had a larger impact on the general QoL of women with breast-cancer • Larger effect size reaching significance **How trustworthy is the evidence?** • Large sample size • Significant heterogeneity • Study quality fair • Long-term effects unclear **How much do we know about the intervention?** • Good description of intervention, length and intensity • No information on provider and setting • Good detail on	Statistical information **Effect size:** 0.56 (range 0-2.37, $p < 0.001$; Q=37.24, p<0.001) **Size of effect:** Larger **Statistically significant?** Yes **Significant heterogeneity?** Yes **Measured at:** Not stated	**Number of participants:** 679 **Design:** RCTs **Quality:** 'Fairly good' **Countries:** Not stated **Date range:** 2001-2009	types – dance, biking, resistance training, arm ergometers, swimming. Most studies walking-based or included walking. Exercise intensity was low-moderate, moderate, moderate-hard and hard in 11%, 11%, 28% and 22% of studies respectively (not described for remainder) **Provider:** Not stated **Setting of delivery:** Not stated **Intervention duration:** Mean 14.1 weeks **Intervention intensity:** • mean session length – 45 minutes • mean session frequency -3 times per week **Comparison group:**	breast cancers (primary stage 1 or stage 2). Mean time since diagnosis 17 months. **Age:** Mean 52.8 years **Gender:** Female **Ethnicity:** Not stated Other: Not stated	affect overall QoL outcomes differently from individual interventions. There was suggestive evidence that the studies examined generally did not specifically focus on fostering group cohesion in their group participants, and furthermore, that even some fostering of social interaction improved social functioning QoL (social participation) in addition to general QoL.

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
population including women only			individual exercise		
Review: Foster (2007) **What are the scale of impact findings?** • Effects of lay-led self-management interventions on QoL were 'extremely small' and 'likely to be trivial' • Smaller effect sizes reaching significance **How trustworthy is the evidence?** • Large sample size • No significant heterogeneity • Study quality varied **How much do we know about the intervention?** • Good description of intervention components, length intensity, provider	**Outcomes:** Prevention: illness events a) Depression b) Anxiety c) Health distress Statistical information Effect size: a) -0.16 (95% CI -0.24, -0.07; I^2=16%, p=0.31) b) -0.14 (95% CI -0.25, -0.04; I^2=5%, p=0.35) c) -0.25 (95% CI -0.34, -0.15; I^2=32%, p=0.22) **Size of effect:** a) Smaller b) Smaller c) Smaller Statistically significant?	**Number of studies:** a) 6 b) 3 c) 4 **Number of participants:** a) 2,613 b) 1,576 c) 2,593 **Design:** RCTs **Quality:** Mixed – some high, some fair, some unclear **Countries:** UK (4), US (3), China (1) **Date range:** 1991-2006	Content/components: 1) Lay-led self-management education programme 2) Lay facilitator acts as positive role model 3) Structured course led by one or two trained and accredited lay facilitators 4) Sessions cover: goal setting/problem solving; lifestyle changes (diet, exercise, sleep); identifying resources; symptom management; dealing with anger, fear and frustration; communication with health professionals 5) Educational materials on course content	**Details:** People with established chronic conditions (an illness of prolonged duration that may affect any aspect of that person's life) **Age:** mean age in studies 44 to 79 years **Gender:** 70% female **Ethnicity:** Predominantly white – 3 studies focused on specific ethnic groups (Hispanic, Chinese, Bangladeshi) **Other:** Years of education ranged	Overall there is insufficient evidence at present to justify widespread implementation of these interventions if the aim is to reduce healthcare resource use. Insufficient information to state whether any benefits would be sustained over time. It would appear that these interventions might be most acceptable to, and feasible for, those who are not severely incapacitated by chronic illness. From the data available, the interventions have similar effects in different ethnic groups and there is no data to suggest that they are any more or less acceptable or effective amongst people of different educational

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
and setting • Good detail on population, including ethnicity	a) Yes b) Yes c) Yes Significant heterogeneity? a) No b) No c) No **Measured at:** a) 3 – 6 months b) 4 months c) 4 – 6 months		**Provider:** Lay people **Setting of delivery:** Community **Intervention duration:** 6-7 weeks Intervention intensity: 2.5 hr. sessions **Comparison group:** Usual care	from >13 years to <10 years across studies	backgrounds.
Review: Gillison (2009) **What are the scale of impact findings?** • A larger positive effect of exercise interventions found for QoL in rehabilitation patients but no	**Outcome:** a) QoL b) QoL (psychological) c) ADL (physical) **Statistical information** **Effect size:**	**Number of studies:** a) QoL i) Rehab: 12 ii) Management: 24 iii) Both: 21	**Content/components:** Light or moderate exercise. Different forms including aerobic, walking, resistance or stretching. **Provider:** Not stated **Setting of delivery:** 29	Details: i) Populations rehabilitating from an incidence of ill health ii) Populations managing an	The 'surprising' negative response maybe an inability of the outcomes of the exercise to match patient's unrealistic expectations about the effect on their condition. The poor response has implications for the timing of exercise interventions.

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
significant effect for disease management group • Smaller to larger effect sizes reaching significance in rehabilitation patients **How trustworthy is the evidence?** Caution required: • Sample sizes unknown • Significant heterogeneity • Study quality unknown **How much do we know about the intervention?** • Fair description of the intervention • No information on duration of intervention • No information on providers/supervisor	a) QoL i) 0.55 (95% CI 0.41, 0.69, *p*=0.001; *Q*=54.85, *p*=0.001) ii) -0.001 (95% CI -0.14,0.14, ns; *Q*=149.13, *p*=0.001) iii) 0.27 (95% CI 0.17,0.38; *p*=0.001; *Q*=175.89, *p*=0.001) b) QoL (psychological) i) 0.12 (C95% I -0.09,0.32, ns; *Q*=22.82, *p*=0.001) ii) -0.26 (95% CI-0.39, -0.13, *p*=0.001; *Q*=22.82, *p*=0.001) c) ADL (physical) i) 0.09 (95% CI -0.09,0.27, ns; *Q*=1.20, ns) ii) 0.19 (95% CI 0.06,0.32, *p*=0.01; *Q*=1.20, ns)	b) QoL (psychological) i) Rehab: 4 ii) Management: 13 c) ADL i) Rehab: 5 ii) Management: 13 **Number of participants:** Not stated **Design:** RCTs **Quality:** Not stated **Countries:** Not stated **Date range:** Not stated	interventions were in a 'supervised' setting, 13 were home based **Intervention duration:** Not stated **Intervention intensity:** 'Light': 23 studies 'Moderate': 15 'Moderate/vigorous': 2 **Comparison group:** No exercise	existing condition iii) Both **Age:** The majority of studies had a mean age over 50 years (33 had mean age over 50 years old: 8 studies had a mean age under 50) **Gender:** Male only: 6 studies Female only: 8 studies Mixed: 28 studies **Ethnicity:** Not stated **Other:** Not stated	It may not be optimal to introduce an exercise intervention when patients are at the stage of managing their chronic condition. These patients may not be receptive to behaviour change. The efficiency and acceptability of an intervention may increase when patients have a sufficiently positive level of QoL at the outset of an intervention.

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
of exercises	**Size of effect:** a) QoL i) Larger ii) Smaller iii) Smaller b) QoL (psychological) i) Smaller ii) Smaller c) ADL i) Smaller ii) Smaller **Statistically significant?** a. QoL i) Yes ii) No iii) Yes b. QoL (psychological)				

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
	i) No ii) Yes c. ADL i) No ii) Yes Significant heterogeneity? a. QoL i) Yes ii) Yes iii) Yes b. QoL (psychological) i) Yes ii) Yes c. ADL i) No ii) No **Measured at:** 3–6 months post intervention				

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
Review: Hall (2009) **What are the scale of impact findings?** • Tai chi had smaller positive effects on self-assessed disability measured directly after intervention • Smaller effect size reaching significance **How trustworthy is the evidence?** Caution required: • Small sample size • No heterogeneity • Study quality low • No follow-up reported, long-term effect unclear **How much do we know about the intervention?** • Exact nature of tai chi (Yang and Sun)	**Outcome:** ADL **Statistical information** **Effect size:** 0.40 (9.6 points on a 0 to 100-point scale) (95% CI 5.2, 14.0; I^2=0%) **Size of effect:** Smaller **Statistically significant?** Yes Significant heterogeneity? No **Measured at:** Directly after the course of treatment	**Number of studies:** 4 **Number of participants:** 214 **Design:** RCTs **Quality:** 'typically small and of low methodological quality' **Countries:** Not stated **Date range:** 2000-2007	**Content/components:** Tai chi: Yang and Sun styles **Provider:** Not stated **Setting of delivery:** Not stated **Intervention duration:** 6 to 12 weeks **Intervention intensity:** 40-60 minutes sessions 2-3 times per week. **Comparison group:** No routine input	**Details:** People with chronic arthritis **Age:** Range from 65-77 years **Gender:** Not stated **Ethnicity:** Not stated **Other:** Not stated	The fact that tai chi is inexpensive, convenient, enjoyable, and conveys other psychological and social benefits supports the idea that a smaller effect size may be considered worthwhile for this type of intervention

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
not described • No information on providers and setting • No information on gender of population					
Review: Hauser (2010) **What are the scale of impact findings?** a) • Aerobic exercise reduced limitations of health-related quality of life post-treatment and at follow-up • Smaller effect size reaching significance b) • Aerobic exercise reduced depressed mood post-treatment and at follow-up • Smaller effect size reaching significance **How trustworthy is**	**Outcomes:** QoL, prevention: a) QoL – 'Health-related quality of life' b) Prevention – mental health 'Depressed mood' **Statistical information** **Effect size:** a) Post-treatment: -0.40 (95% CI -0.60, 0.20; I^2=63%, p<0.001) Latest follow-up: -0.27 (95% CI -0.48, -0.05; I^2=14%) b) Post-treatment: -0.32 (95% CI -0.53, -0.12; I^2=51%) Follow-up: -0.44 (95% CI -	**Number of studies:** 25 post-treatment impact, 8 of which provide follow-up impact **Number of participants:** 1,266 post-treatment, 424 latest follow-up **Design:** RCTs **Quality:** Variable **Countries:** Spain, Turkey, Canada, USA, Denmark, Britain, Brazil, Finland, Netherlands **Date range:** 1996-2009	**Content/components:** Aerobic exercise (AE) included cycling, walking, aquatic jogging, games, dance and rhythmic or boxing movements. At least 50% of the training session should consist of AE **Provider:** Supervised by a trainer reported in 20 of the 25 studies **Setting of delivery:** University; community and hospital fitness centre **Intervention duration:** 6-23 weeks **Intervention intensity:** 1 to 7 times weekly,	**Details:** Patients with fibromyalgia syndrome. **Age:** Range from 13 to 59 years **Gender:** 71 to 100% were women **Ethnicity:** Not stated **Other:** Males and adolescents were rarely included in the study populations	The evidence is applicable to the majority of patients in clinical practice except male patients and those with internal and orthopaedic diseases that may prevent AE. Amount and intensity should be adapted to individual levels of fitness. Patients should start at levels just below their capacity and gradually increase the duration and intensity until they are exercising with low to moderate intensity for 20 to 30 minutes 2 to 3 times/week. Patients should exercise with an intensity at which they are able to speak fluently with another

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
the evidence? • Caution required: • Large sample size • Significant heterogeneity overall • Study quality varied • How much do we know about the intervention? • Good description of contextual details on the intervention • Wide variations in duration and intensity • Population included mainly women with breast cancer	0.88, 0.01; I^2=71%) **Size of effect:** a) Post-treatment: smaller Latest follow-up: Smaller b) Post-treatment: Smaller Follow-up: Smaller **Statistically significant?** a) Post-treatment: Yes; latest follow-up: Yes b) Post-treatment: Yes; follow-up: near significant **Significant heterogeneity?** a) Post-treatment: Yes; latest follow-up: No b) Post-treatment: Yes; follow-up: Yes **Measured at:** post-		between 25 to 120 minutes per session **Comparison group:** Treatment as usual/ another active therapy/ attention control		person. Patients should choose their exercise of preference. Training programmes should last at least 4 weeks. Patients should be educated that they may have some tolerable short-term increases in pain and fatigue but, if they exercise at an appropriate intensity, these symptoms should return to baseline levels within the first few weeks of exercise. Patients should be motivated to continue exercise if they perceive a reduction of symptoms after the programme.

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
	treatment and follow-up (the median latest follow-up was 26 weeks)				
Review: Legg (2007) **What are the scale of impact findings?** • OT had a larger impact on preventing deterioration in activities of daily living • Larger and smaller effect sizes reaching significance **How trustworthy is the evidence?** • Large sample size • Effects consistent • Minimal heterogeneity • Study quality good **How much do we know about the intervention?** - Good description of	Outcome: ADL a) Personal activities of daily living b) Deterioration in activities of daily living Statistical information Effect size: a) 0.18 (95% CI 0.04 to 0.32, p=0.01; I^2=13.3%, p=0.33) b) 0.67 (95% CI 0.51 to 0.87, p=0.003; I^2=20%, p=0.28) **Size of effect:** a) Smaller b) Larger **Statistically significant?** a) Yes	**Number of studies:** a) 8 b) 7 **Number of participants:** a) 961 b) 1,065 **Design:** RCTs **Quality:** 'generally good' **Countries:** UK and Hong Kong **Date range:** 1995-2006	**Content/components:** OT aimed at encouraging people to participate in personal activities of daily living after stroke. Some general ADL-focused; some focused on specific tasks e.g. leisure activities, bathing **Provider:** Delivered or supervised by a qualified occupational therapist **Setting of delivery:** home or nursing home **Intervention duration:** 3- 12 months **Intervention intensity:** Ranged from weekly-monthly visits, 30-45 minutes per visit.	**Details:** Patients recovering from stroke **Age:** Mean age ranged between 55 and 87.5 years **Gender:** The proportion of men in each study ranged from 19% to 66% **Ethnicity:** Not stated **Other**: Not stated	'Occupational therapy is a complex intervention … While we are confident that all the interventions in this review were consistent with this broad concept of occupational therapy, we recognise that the exact nature of the interventions in each study differed according to the type of patient, the expertise of the therapist, and the resources available. The interventions tested were probably provided by experts and not particularly constrained by day to day service factors. Our review adds substantially to the literature by examining the effects of occupational therapy focused personal activities

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
the intervention components, providers and settings - Fair description of population	b) Yes Significant heterogeneity? a) No b) No **Measured at:** 7 weeks–12 months		**Comparison group:** No routine input		of daily living in stroke patients regardless of treatment setting.'
Review: Leung 2011 **What are the scale of impact findings?** • Tai chi had a smaller impact on reducing falls in non-frail older people • Smaller effect sizes reaching significance **How trustworthy is the evidence?** • Large sample size • Study quality good • Heterogeneity not reported • findings not	**Outcomes:** Prevention, illness/events: reduction in falls **Statistical information** **Effect size:** i) -0.09 (95% CI -0.25 to 0.09) ii) -0.26 (95% CI -0.98 to 0.46) **Size of effect:** i) Smaller ii) Smaller **Statistically significant?**	**Number of studies:** 3 **Number of participants:** 1,068 **Design:** RCTs **Quality:** Good quality **Country:** Not stated **Date range:** 1990-2001	**Content/components:** Tai chi 1) Slow, continuous, highly choreographed movements 2) unilateral and bilateral weight shift, trunk and extremity rotation 3) Five major styles – all based on principle of using controlled muscle relaxation in generating leverage **Providers:** not stated (1 study – home-based self-practice)	**Details:** healthy elderly people in nursing homes or long-term care centres; self-care **Age:** range from 63-98 years **Gender:** 79% females in one study **Ethnicity:** Not Stated **Other**: Not stated	Tai chi may increase the risk of falls among the frail elderly, due to deteriorating physical function which does not allow practice of tai chi at an intensity sufficient to generate health benefits. Caution needed to make recommendations about optimum hours of practice due to differences in content and style of tai chi, e.g. time spent and devoted to meditation/group discussion and number of movements. Tai chi regarded as an

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
significant **How much do we know about the intervention?** • Good overall description of the major styles of tai chi • Limited information on providers • Population mainly female	i) No ii) No Significant Heterogeneity? i) Not Stated ii) Not Stated **Measured at:** i) 24 weeks ii) 52 weeks		**Setting of delivery:** nursing homes **Intervention duration:** 10 to 52 weeks **Intervention intensity:** 20 to 90 min/session daily to every 2 weeks **Comparison group:** no treatment		easy-to-follow and enjoyable exercise that can be practised anywhere and at any time without special equipment. Tai chi may be a self-sustaining activity that greater numbers of older adults will continue to participate in and thus derive benefits from.
Review: Lin 2011 **What are the scale of impact findings?** • Yoga groups showed significantly greater improvements in psychological health of anxiety and depression when compared to control • Larger and smaller effect sizes reaching significance	**Outcomes:** Prevention, illness/events, QoL a) Anxiety b) Depression c) QoL **Statistical information** **Effect size:** a) -0.76 (95% CI -1.34, -0.19, p=0.009; I^2=91%, p=<0.00001)	**Number of studies:** a) 8 b) 8 c) 3 **Number of participants:** 745 **Design:** RCTs **Quality:** fair quality	**Content/components:** 4 different types of yoga: 1) Restorative yoga: asanas (postures done with awareness), pranayama (voluntarily regulated nostril breathing) and savasana (deep relaxation) 2) Integrated yoga: asanas, pranayama, meditation and yogic	**Details**: People with cancer **Age:** 43 to 58 years **Gender:** 96% female **Ethnicity:** Not stated **Other**: Mean time since cancer diagnosis 12 to 56	The findings do not address whether the psychological health benefits were attributable directly to yoga as a whole or the specific components of yoga, such as meditation and attention, in patients with cancer. Given that several yoga programmes included meditation and relaxation with imagery, the positive results on

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
How trustworthy is the evidence? • Large sample size • Effects consistent • Considerable heterogeneity in 2 studies • Study quality fair • Short follow-up period, long-term effect unclear **How much do we know about the intervention?** - Fair overall description of 4 different styles of yoga used -Population included mainly women with breast cancer at various stages since diagnosis	b) -0.95 (95% CI-1.55, -0.36, p=0.002; I^2=90%, p=<0.00001) c) -0.29 (95% CI-0.58, 0.01, p=0.06; I^2=0%, p=0.06) **Size of effect:** a) Larger b) Larger c) Smaller **Statistically significant?** a) Yes b) Yes c) Near significant Significant heterogeneity? a) Yes b) Yes c) No **Measured at:**	**Country**: Not Stated **Date range:** 2000-2009	relaxation 3) Hatha yoga: physical stretches, breathing and meditation 4) Tibetan yoga: controlled breathing, mindfulness, postures from Tsa lung (channels and vital breath), Trul khor (magical wheel) **Providers:** therapists **Intervention intensity:** a) 60 min/day to 2.5 hr/week b) 60 min/day to 2.5 hr/week c) 75 min to 1.5 hr/week **Intervention length:** 7-24 weeks **Setting:** includes home practice **Comparison group:**	months	psychological health might be obtained from these. All studies investigated participants with a diagnosis of cancer. 7 investigated breast cancer in women, 2 recruited mixed cancer populations, and 1 included patients with lymphoma. Yoga styles, treatment dose, including duration and frequency, and the adherence to yoga intervention and home practice may affect treatment outcome. Patients who practiced yoga longer on a given day were much more likely to experience less pain and fatigue and greater invigoration, acceptance and relaxation on the next

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
	a) 7 -24 weeks b) 7-10 weeks c) 7 -12 weeks		waitlist or supportive counselling		day.
Review: O'Brien 2010 **What are the scale of impact findings?** • Constant or interval aerobic exercise, or a combination of constant aerobic and progressive resistive exercise for at least 20 minutes 3 times/week for at least 5 weeks appears to be safe and may lead to improvements in psychological status • Effect size indicates a clinically important improvement **How trustworthy is the evidence?** • Caution required: • Small sample size	**Outcome:** Prevention, illness/events: depression Statistical information Effect size: -7.68 (95% CI -13.47, -1.90, p=0.009; I^2=94%, p=0.00001) **Size of effect:** Clinically important improvement **Statistically significant?** Yes **Significant heterogeneity?** Yes **Measured at:** 5-12 weeks	**Number of studies:** 2 **Number of participants:** 65 **Design:** RCTs **Quality:** Low quality **Country:** Not stated **Date range:** 1990 to 2001	**Content/components:** Aerobic exercises: 1) Stationary bike 45 minutes total at 80% HRmax for 3 minutes, then at 60-79% HRmax for 2 minutes 2) Minimum of 30 minutes constant aerobic exercise at 60-80% V02 max consisting of mandatory 20 minutes walking/jogging on treadmill and remaining time spent either on stationary bicycle, stair stepper or cross-country machine **Provider:** Not stated **Setting:** Not stated **Intervention duration:**	**Details**: Adults with HIV/AIDS **Age:** 18-40 years **Gender:** Majority male **Ethnicity:** Not stated **Setting:** Not stated **Other**: Not stated	Findings suggest that adults with HIV/AIDs who are medically stable can safely undertake aerobic exercise. Aerobic exercise should be performed for at least 20 minutes, 3 times per week for at least 5 weeks to lead to improvements in psychological status. The majority of study participants were men aged 18-40. This limits the external validity and ability to generalise results to women and older adults living with HIV. The maximum duration of aerobic exercise intervention was 12 weeks, thus the long-term

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
• Study quality low • Short follow-up period, long-term sustainable effects unclear **How much do we know about the intervention?** • Good description of the intervention • No information on the providers and the setting			5 -12 weeks **Intervention intensity:** 30-45 minutes **Comparison group:** No exercise		sustainable effects of aerobic exercise remain less clear.
Review: Olazaran 2010 **What are the scale of impact findings?** • Non-pharmacological therapies (broadly occupational therapy) can improve QoL outcomes in people with dementia • Larger and smaller effect sizes reaching significance **How trustworthy is**	**Outcomes:** a) QoL ADL i) ADL training ii) Multi-component: enriched group cognitive stimulation b) QoL iii) In home counselling c) Prevention, illness/ events: mood	**Number of studies:** i) 3 ii) 3 iii) 2 iv) 3 **Number of participants:** i) 95	**Content/components:** Range of non-pharmacological interventions (NPT) i) ADL training: guided performance providing the minimal required assistance to complete target ADLs, e.g. verbal prompting and reinforcement to avoid incontinence ii) Multi-component enriched group	**Details:** People with dementia **Age:** Not Stated **Gender:** Not Stated **Ethnicity:** Not Stated **Other:** Disease severity from mild to moderately	As almost half of the findings and recommendations came from multi-component categories, each category improving several domains, it is hard to know what element worked, how it worked and for whom. In contrast to drugs, NPT are often of low cost, and the cost relates to human endeavour rather than expensive technology or

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
the evidence? • Caution required: • Small sample size • No heterogeneity • Study quality low **How much do we know about the intervention?** • Limited details on content of the interventions • Adequate information on delivery of the programmes • Limited demographic information on the population	iv) Multi-component: enriched group cognitive stimulation **Statistical information** **Effect size:** i) 0.412 (95% CI 0.003, 0.821; *Q*=1.33, *p*=0.514) ii) 0.369 (95% CI 0.062, 0.676; *Q*=1.25, *p*=0.535) iii) 0.561 (95% CI 0.087, 1.035; *Q*=2.17, *p*=0.141) iv) 0.376 (CI 0.066, 0.686; *Q*=1.75, *p*=0.417) **Size of effect:** i) Smaller ii) Smaller iii) Larger iv) Smaller **Statistically significant?** i) Yes	ii) 167 iii) 170 iv) 164 **Design:** RCTs **Quality:** Low quality **Country:** Not stated **Date range:** 1990 to 2004	cognitive stimulation: cognitive stimulation, reminiscence and some of the following: relaxation, support iii) In-home counselling: individualised programmes for effective dementia care based on comprehensive assessment, environment modifications and continuous counselling and support iv) Multi-component enriched group cognitive stimulation, same as ii) **Providers:** Non-professional and professional care givers **Setting:** Nursing home or community setting **Intervention duration:**	severe	medication. Rather than being viewed as an alternative to medications and drugs, non-pharmacological therapies should be understood as complementary approaches.

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
	ii) Yes iii) Yes vi) Yes **Significant heterogeneity?** i) No ii) No iii) No iv) No **Measured at:** i) 3 days to 20 weeks ii) 10 to 52 weeks iii) 6 weeks to 4 months iv) 10 to 52 weeks		i) ADL training: 3 days to 20 weeks ii) Multicomponent: 10–52 weeks iii) In-home counselling: 6 weeks to 4 months iv) Multicomponent: 10–52 weeks **Intervention intensity:** i) ADL training: Intervention integrated in usual care, or individual (30 min, 3/week) or group (2.5 h, 5/week) sessions ii) Multicomponent intervention for the PWD: 90–210 min, 1–2/week iii) In-home counselling: 60-90 min 1-2/week iv) Multicomponent intervention for the PWD: 90–210 min, 1–		

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
			2/week **Comparison group:** usual care		
Review: Sawka 2010 **What are the scale of impact findings?** • Some evidence that hip protectors may reduce the risk of hip fracture in institutionalised elderly • Smaller effect size reaching significance **How trustworthy is the evidence?** • Large sample size • Significant heterogeneity • Medium quality studies **How much do we know about the intervention?**	**Outcomes:** Prevention, illness/events: reduction in hip fractures **Statistical information** **Effect size:** OR -0.51 (95% CI -0.72 to -0.31); between-study heterogeneity on a log scale, mean $1.70x10^{-4}$, 95% CRI $2.01x10^{-7}$, $8.60x10^{-4}$) **Size of effect:** Smaller **Statistically significant?** Yes **Significant heterogeneity?** Yes **Measured at:** 11-26 months	**Number of studies:** 5 **Number of participants:** 2,594 **Design:** RCTs **Quality:** Medium quality **Country:** Not stated **Date range:** 1997 to 2009	**Content/components:** Application of hip protectors (shields on both hips) and leaflet on fracture prevention Provider: Not stated **Setting of delivery:** Nursing homes **Intervention duration:** 11-26 months **Intervention intensity:** Not applicable **Comparison group:** Usual care	**Details:** Elderly nursing home residents with nursing care available on-site 24 hours per day **Age:** ≥65 **Gender:** male and female **Ethnicity:** Not stated **Other**: Not stated	It may be reasonable to reserve hip protectors for nursing home residents at highest risk of hip fracture, such as residents with prior fragility fracture or multiple risk factors (especially if any vitamin D insufficiency or deficiency has first been treated).

Overview	Scale of impact	Evidence base	Intervention	Population	Authors' views on Implementation
• Adequate details • No information on the providers					

Appendix 7: Search strategy

FINAL IBSS search. Results: 264

Platform: CSA. Search run 1 February 2011 by Rebecca Rees, date range: 2000-2012

[Annotated to identify different conceptual areas]

[Controlled term search for social care interventions and outcomes] ((((DE="**occupational therapy**") or((DE="**social work**") or(DE="**social workers**") or(DE=("**community care**" or "**social security**" or "**social services**" or "**social support**")) or(DE="**social services**")) or((DE="**residential care**") or(DE="**care of the aged**"))) or(DE="**community services**") or(DE="Long-term **care**") or(DE="**Benefit plans**" OR DE="**Payments**")) or((DE=("**Social integration**" or "**Social exclusion**" or "**Empowerment"** or "**Social participation**" or "**Autonomy**" or "**Decision making**" or "**Quality of life**")) or(DE=("**employment**" or "**access to employment**" or "**employment opportunities**" or "**employment situation**" or "**full time employment**" or "**part time employment**" or "**temporary employment**")) or(DE=("**Resident satisfaction**" or "**Satisfaction**" or "**Information acquisition**")) or(DE=**Prevention** AND DE=**Hospitalization**) or(DE="**sexual abuse**" or DE="**abuse of the aged**" or DE="**domestic violence**" or DE= "**sexual assault**" or DE="**human rights**" or DE="**injuries**")))

And

[Controlled term search for social care populations] (((DE="**aged**") or(DE=("**Alzheimer's disease**" or "**dementia**")) or(DE=("**ageing**" or "**senescence**"))) or((DE=("**Mental illness**" or "**Schizophrenia**" or "**Social psychiatry**" or "**Mentally disabled**" or "**Psychoses**" or "**Addiction**" or "**Alcoholism**" or "**Trauma**" or "**Psychosis**" or "**Social psychiatry**" or "**Depression**" or "**Substance use**" or "**Drug use**" or "**Anorexia nervosa**" or "**Eating disorders**" or "**Personality disorders**")) or(DE="**mental health**")) or(DE=("**Disabled persons**" or "**Disability**" or "**Blindness**" or "**Deafness**")) or(DE=("**Learning disabilities**" or "**Mentally disabled**")) or(DE=("**caring**")))

And

[Controlled term search for systematic reviews] ((DE="**Review articles**") or(((KW=**systematic** within 2 **review***) or(((KW=**inclusion** within 5 **criteri***) or(KW=("**systematic***" or "**critical**" or "**study selection**" or "**predetermined**" or "**exclusion criteri***" or "**main outcome measures**")) or(KW=**standard** within 2 **care**)) and(KW=("**survey***" OR "**overview***" OR "**review***" OR "**search***" OR "**handsearch***" OR "**analysis**" OR "**critique**" OR "**appraisal**")) and((KW=**clinical** within 3 **studies**) or(KW=("**survey***" OR "**overview***" OR "**review***" OR "**search***" OR "**handsearch***" OR "**analysis**" OR "**critique**" OR "**appraisal**")) or((KW=**clinical** within 3 **studies**) or(KW="**literature**" OR "**articles**" OR "**publication***" OR "**bibliographies**" OR "**published**" OR "**unpublished**" OR "**citation***" OR "**database**" or "**internet**" OR "**textbooks**" OR "**scales**" OR "**papers**" OR "**datasets**" OR "**trials**" OR "meta-analy*" OR "**intervention***" OR "**treatment outcome***")))))) or(KW=("**evidence based**" OR "**best practice***" OR "**evidence synthesis**"))))

OR

[Free-text search for social care interventions and outcomes] ((**TI**= ("**Social care**" OR "**social service**" OR "**social services**" OR "**adult service**" OR "**adult services**" OR "**social work service***" OR "**social support service***" OR "**social care service***" OR "**social care support**" OR "**home care service***" OR "**home caring service***" OR "**homecare service***" OR "**social intervention***" OR "**welfare service***" OR "**welfare recipient***" OR "**social welfare**" OR "**social program***" OR "**adult care service***" OR "**personal care**" OR "**community care**" OR "**community services**" OR "**community mental health team***" OR "**community mental**

health care" OR "**community mental healthcare**" OR (**community** within 2 ("**day**" OR "**housing**" OR **volunteer** OR **social** OR **support**)) OR "**community based care**" OR "**case management**" OR "**sheltered work***" OR "**fountain house***" OR "**fountain-house***" OR "**clubhouse***" OR "club-house*" OR "**transitional employ***" OR "**housing**" OR "**domiciliary care**" OR "**domiciliary assistan***" OR "**non institutional care**" OR "**non resident care**" OR "**residential care**" OR "**home-based care**" OR "**home based care**" OR "**home health care**" OR "**home healthcare**" OR "**home assistance**" OR "**homecare**" OR "**restorative home care**" OR "**domestic care**" OR "**outreach services**" OR "**Outreach program***" OR "**Assertive outreach**" OR "**Peer outreach**" OR "**Home help**" OR "**meal service***" OR (**meals** within 2 **wheels**) OR "**Meal delivery**" OR "**Meal program***" OR "**Meal distribution**" OR "**community outreach**" OR "**Volunteer outreach**" OR "**Day service***" OR "**Assisted care**" OR "**Home visiting**" OR "**residential care**" OR "**older peoples home***" OR "**Respite care**" OR "**nursing home**" OR "**care home***" OR "**Residential home***" OR "**Daycare centres***" OR "**Nursing homes**" OR "**therapeutic communities**" OR "**assertive community treatment**" OR "**befriending**" OR "**Peer support**" OR "**Peer network***" OR "**Help group***" OR "**Help network***" OR "**Support group***" OR "**Support network***" OR "**Supportive services**" OR "**Mutual support**" OR "**Community support**" OR "**care** co-ordinator*" OR "**care coordinator***" OR "**Social worker***" OR "**Care supervi?or***" OR "**Care** worker/s" OR "**Care Facilitator***" OR "**Care adviser***" OR "**Care advizer***" OR "**Case manager***" OR "**Outreach worker***" OR "**Care assistant***" OR "**Health aide***" OR "**homemaker service***" OR "**Professional carer***" OR "**personal assistant***" OR "**personal assistance**" OR "**support worker***" OR "**consumer directed care**" OR "**flexible funding**" OR "**self directed care**" OR "**self directed support**" OR "**self managed care**" OR "**self managed support**" OR "**user directed care**" OR "**user directed support**" OR "**Consumer directed support**" OR "**direct payment**" OR "**direct payments**" OR "**person centred planning**" OR "**person centered planning**" OR "**person centred support**" OR "**person centered support**" OR "**user centred support**" OR "**user centred planning**" OR (**cash** within 2 **care**) OR (**cash** within 2 **counseling**) OR (**cash** within 2 **counselling**) OR "**individual budgets** " OR "**cash assistance**" OR "**attendance allowance**" OR "**Welfare benefit***" OR "**Welfare system***" OR "**Income support**" OR "**Benefit payment***" OR "**Social securit***" OR "**Mobility allowance***" OR "**Sickness benefit***" OR "**Invalidity benefit***" OR "**Disability benefit***" OR "**Respite care**" OR "**integrated service***" OR "**Services integration**" OR "**Social planning**" OR "**Reablement**" OR "re-ablement" OR "Re-enablement" OR "**Response Services**" OR "**Continuing Care**" OR "**transitional services**" OR "**Rehabilitation**" OR "**telerehabilitation**" OR "**electronic aids**" OR ("**electronic devices**" near **living**) OR (**aids** near "**daily living**") OR "**Assistive devices**" OR "**smart home***" OR "**Smart hous***" OR "**Smart technolog***" OR (**robot*** near **assist***) OR (**home** near **telecare**) OR (**home** near **telepresence**) OR "**befriending**" OR "**mentoring**" OR (**Control** within 2 "**daily life**") OR "**Independent living**" OR "**Living independently**" OR "**promote independence**" OR (**living** within 2 **home**) OR "**employment**" OR "**Live independently**" OR "**Independently live**" OR "**Independent lives**" OR "**Assisted living**" OR "**Assisted home***" OR "**Supported living**" OR "**social assistance**" OR "**socially assistive**" OR "**Promoting independence**" OR "**Carer consultation***" OR "**Person centred approach***" OR "**Person centred planning**")) or(AB= ("**Social care**" OR "**social service**" OR "**social services**" OR "**adult service**" OR "**adult services**" OR "**social work service***" OR "**social support service***" OR "**social care service***" OR "**social care support**" OR "**home care service***" OR "**home caring service***" OR "**homecare service***" OR "**social intervention***" OR "**welfare service***" OR "**welfare recipient***" OR "**social welfare**" OR "**social program***" OR "**adult care service***" OR "**personal care**" OR "**community care**" OR "**community services**" OR "**community mental health team***" OR "**community mental health care**" OR "**community mental healthcare**" OR (**community** within 2 ("**day**" OR "**housing**" OR **volunteer** OR **social** OR **support**)) OR "**community based care**" OR "**case management**" OR "**sheltered work***" OR "**fountain house***" OR "**fountain-house***" OR "**clubhouse***" OR "club-house*" OR "**transitional employ***" OR "**housing**" OR "**domiciliary care**" OR "**domiciliary assistan***" OR "**non institutional care**" OR "**non resident care**" OR "**residential care**" OR "**home-based care**" OR "**home based**

care" OR "**home health care**" OR "**home healthcare**" OR "**home assistance**" OR "**homecare**" OR "**restorative home care**" OR "**domestic care**" OR "**outreach services**" OR "**Outreach program***" OR "**Assertive outreach**" OR "**Peer outreach**" OR "**Home help**" OR "**meal service***" OR (**meals** within 2 **wheels**) OR "**Meal delivery**" OR "**Meal program***" OR "**Meal distribution**" OR "**community outreach**" OR "**Volunteer outreach**" OR "**Day service***" OR "**Assisted care**" OR "**Home visiting**" OR "**residential care**" OR "**older peoples home***" OR "**Respite care**" OR "**nursing home**" OR "**care home***" OR "**Residential home***" OR "**Daycare centres***" OR "**Nursing homes**" OR "**therapeutic communities**" OR "**assertive community treatment**" OR "**befriending**" OR "**Peer support**" OR "**Peer network***" OR "**Help group***" OR "**Help network***" OR "**Support group***" OR "**Support network***" OR "**Supportive services**" OR "**Mutual support**" OR "**Community support**" OR "**care** co-ordinator*" OR "**care coordinator***" OR "**Social worker***" OR "**Care supervi?or***" OR "**Care** worker/s" OR "**Care Facilitator***" OR "**Care adviser***" OR "**Care advizer***" OR "**Case manager***" OR "**Outreach worker***" OR "**Care assistant***" OR "**Health aide***" OR "**homemaker service***" OR "**Professional carer***" OR "**personal assistant***" OR "**personal assistance**" OR "**support worker***" OR "**consumer directed care**" OR "**flexible funding**" OR "**self directed care**" OR "**self directed support**" OR "**self managed care**" OR "**self managed support**" OR "**user directed care**" OR "**user directed support**" OR "**Consumer directed support**" OR "**direct payment**" OR "**direct payments**" OR "**person centred planning**" OR "**person centered planning**" OR "**person centred support**" OR "**person centered support**" OR "**user centred support**" OR "**user centred planning**" OR (**cash** within 2 **care**) OR (**cash** within 2 **counseling**) OR (**cash** within 2 **counselling**) OR "**individual budgets** " OR "**cash assistance**" OR "**attendance allowance**" OR "**Welfare benefit***" OR "**Welfare system***" OR "**Income support**" OR "**Benefit payment***" OR "**Social securit***" OR "**Mobility allowance***" OR "**Sickness benefit***" OR "**Invalidity benefit***" OR "**Disability benefit***" OR "**Respite care**" OR "**integrated service***" OR "**Services integration**" OR "**Social planning**" OR "**Reablement**" OR "re-ablement" OR "Re-enablement" OR "**Response Services**" OR "**Continuing Care**" OR "**transitional services**" OR "**Rehabilitation**" OR "**telerehabilitation**" OR "**electronic aids**" OR ("**electronic devices**" near **living**) OR (**aids** near "**daily living**") OR "**Assistive devices**" OR "**smart home***" OR "**Smart hous***" OR "**Smart technolog***" OR (**robot*** near **assist***) OR (**home** near **telecare**) OR (**home** near **telepresence**) OR "**befriending**" OR "**mentoring**" OR (**Control** within 2 "**daily life**") OR "**Independent living**" OR "**Living independently**" OR "**promote independence**" OR (**living** within 2 **home**) OR "**employment**" OR "**Live independently**" OR "**Independently live**" OR "**Independent lives**" OR "**Assisted living**" OR "**Assisted home***" OR "**Supported living**" OR "**social assistance**" OR "**socially assistive**" OR "**Promoting independence**" OR "**Carer consultation***" OR "**Person centred approach***" OR "**Person centred planning**")) or(**TI**= ((**Reduc*** within 2 (**admission*** or **hospitali***)) OR (**Delay*** within 2 (**admission*** or **hospitali***)) OR "**admission* avoid***" OR "**Hospital avoid***" OR "**Assisted discharge**" OR "**Reablement**" OR ("**Low-level**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low level**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low intensity**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low-intensity**" within 2 (**service*** or **support** or **care** or **intervention***)) OR "**Intermediate care**" OR "**Preventive practice***" OR "**Maintain* independ***" OR "**Independent living**" OR "**Falls prevention**" OR "**Injur* prevention**" OR "**Accident* prevention**" OR (**Prevent*** within 1 (**fall*** or **injur*** or **accident***)) OR "**symptom relief**" OR "**symptom reduction**" OR "**Personal care**" OR "**Social participation**" OR **Accommodation** OR "**Delaying dependency**" OR "**Regaining independen***" OR ("**reducing need**" within 2 "**intensive services**") OR "**user satisfaction**" OR "**customer satisfaction**" OR "**consumer satisfaction**" OR "**client satisfaction**" OR (**experience*** within 2 **care**) OR (**experience*** within 2 **support**) OR "**user experience***" OR "**care* experience***" OR "**customer experience***" OR "**client experience***" OR "**consumer experience***" OR **dignity** OR **respect** OR "**service quality**" OR "**service provision**" OR "**quality within 2 care***" OR (**carer*** within 2 **involv***) OR "**person centred**" OR "**client centred**" OR "**user involvement**" OR **Theft*** OR **Steal** OR **stealing** OR **Fraud*** OR **Assault*** OR **Rape** OR **Neglect*** OR "Self-**neglect***" OR **Harass*** OR **violence** OR **Victim*** OR "**Ill treat***"

OR "**Ill treat***" OR **Mistreat*** OR **Maltreat*** OR **Safeguard*** OR (**Prevent*** within 3 **Harm**) OR **Exploit*** OR **Crime*** OR (**Abuse*** near (**physical*** OR **emotion*** OR **sex*** OR **verbal*** OR **financ*** OR **violen***)))) or(AB= ((**Reduc*** within 2 (**admission*** or **hospitali***)) OR (**Delay*** within 2 (**admission*** or **hospitali***)) OR "**admission* avoid***" OR "**Hospital avoid***" OR "**Assisted discharge**" OR "**Reablement**" OR ("**Low-level**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low level**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low intensity**" within 2 (**service*** or **support** or **care** or **intervention***)) OR ("**Low-intensity**" within 2 (**service*** or **support** or **care** or **intervention***)) OR "**Intermediate care**" OR "**Preventive practice***" OR "**Maintain* independ***" OR "**Independent living**" OR "**Falls prevention**" OR "**Injur* prevention**" OR "**Accident* prevention**" OR (**Prevent*** within 1 (**fall*** or **injur*** or **accident***)) OR "**symptom relief**" OR "**symptom reduction**" OR "**Personal care**" OR "**Social participation**" OR **Accommodation** OR "**Delaying dependency**" OR "**Regaining independen***" OR ("**reducing need**" within 2 "**intensive services**") OR "**user satisfaction**" OR "**customer satisfaction**" OR "**consumer satisfaction**" OR "**client satisfaction**" OR (**experience*** within 2 **care**) OR (**experience*** within 2 **support**) OR "**user experience***" OR "**care* experience***" OR "**customer experience***" OR "**client experience***" OR "**consumer experience***" OR **dignity** OR **respect** OR "**service quality**" OR "**service provision**" OR "**quality within 2 care***" OR (**carer*** within 2 **involv***) OR "**person centred**" OR "**client centred**" OR "**user involvement**" OR **Theft*** OR **Steal** OR **stealing** OR **Fraud*** OR **Assault*** OR **Rape** OR **Neglect*** OR "Self-**neglect***" OR **Harass*** OR **violence** OR **Victim*** OR "**Ill treat***" OR "**Ill treat***" OR **Mistreat*** OR **Maltreat*** OR **Safeguard*** OR (**Prevent*** within 3 **Harm**) OR **Exploit*** OR **Crime*** OR (**Abuse*** near (**physical*** OR **emotion*** OR **sex*** OR **verbal*** OR **financ*** OR **violen***)))))

And

[Free-text search for social care populations] ((**TI**=((**Carer*** OR **Caregiv*** OR "**informal care**" OR "**informal caring**" OR "**unpaid care**" OR "**unpaid caring**" OR **caretak*** OR (**care** near **taker***) OR (**care** within 1 **taking**) OR (**families** near **support**) OR ((**parent** or **parents** or **mother** or **mothers** or **father** or **fathers**) near (**care** OR **caring** OR **support** OR **supporting**)) OR (**sons** or **daughters** or **friends**) near (**care** OR **caring** OR **support** OR **supporting**)) OR ((**husband*** or **wives** or **wife** or **spouse*** or **grandparent*** or **grandchild*** or **neighbour*** or **relatives**) near **care**))) or(AB=((**Carer*** OR **Caregiv*** OR "**informal care**" OR "**informal caring**" OR "**unpaid care**" OR "**unpaid caring**" OR **caretak*** OR (**care** near **taker***) OR (**care** within 1 **taking**) OR (**families** near **support**) OR ((**parent** or **parents** or **mother** or **mothers** or **father** or **fathers**) near (**care** OR **caring** OR **support** OR **supporting**)) OR (**sons** or **daughters** or **friends**) near (**care** OR **caring** OR **support** OR **supporting**)) OR ((**husband*** or **wives** or **wife** or **spouse*** or **grandparent*** or **grandchild*** or **neighbour*** or **relatives**) near **care**))) or(**TI**= ((**Old*** within 1 (**people*** or **patient*** or **adult*** or "**service user***" or **person*** or **men** or **women** or **male*** or **female*** or **community** or **communities** or **population*** or **age*** or **resident*** or **citizen***)) OR **seniors** OR (**senior** within 1 (**patient*** or **adult*** or "**service user***" or **person*** or **men** or **women** or **male*** or **female*** or **community** or **communities** or **population*** or **age*** or **resident*** or **citizen***)) OR **elder*** OR **geriatric*** OR **Pensioner*** OR **Frail** OR "**Nursing home resident***" OR "**late life**" OR "**later life**" OR "**late-life**" OR "**old old**" OR "**Oldest old**" OR "**pension* age**")) or(AB= ((**Old*** within 1 (**people*** or **patient*** or **adult*** or "**service user***" or **person*** or **men** or **women** or **male*** or **female*** or **community** or **communities** or **population*** or **age*** or **resident*** or **citizen***)) OR **seniors** OR (**senior** within 1 (**patient*** or **adult*** or "**service user***" or **person*** or **men** or **women** or **male*** or **female*** or **community** or **communities** or **population*** or **age*** or **resident*** or **citizen***)) OR **elder*** OR **geriatric*** OR **Pensioner*** OR **Frail** OR "**Nursing home resident***" OR "**late life**" OR "**later life**" OR "**late-life**" OR "**old old**" OR "**Oldest old**" OR "**pension* age**")) or(**TI** (**aged** within 1 (**65** or **70** or **75** or **80** or **85**))) or(**TI**= (**aged** within 1 (**65** or **70** or **75** or **80** or **85**))) or(**TI**= ("**older than 65**" OR "**older than 70**" OR "**older than 75**" OR "**older than 80**" OR "**older than 85**")) or(AB= ("**older than 65**" OR "**older than 70**" OR "**older than 75**" OR "**older than 80**" OR "**older than 85**")) or(**TI**= ("**Substance abus***" OR

"**Drug user***" OR "**Drug Habituation**" OR "**Drug Use Disorder***" OR "**Substance Use Disorder***" OR "**Drug Dependenc***" OR "**Withdrawal Syndrome***" OR "**Dependency disorder***" OR ((**drug** or **substance**) within 1 (**abuse*** or **misuse** or **depend*** or **addict***)) OR **Schizo*** OR **Catatonia** OR **catatonic** OR **Depression** OR "Bi-polar" OR **bipolar** OR **Mania** OR **Hypomania** OR **Cyclothymia** OR **Dysthymia** OR "**Mood disorder***" OR "**Depressive Disorder***" OR **OCD** OR "**obsessive compulsive**" OR "**Eating Disorder***" OR **bulimi*** OR "**Bulimia Nervosa**" OR **anorexi*** OR "**anorexia nervosa**" OR "Binge-**Eating Disorder***" OR "**Personality disorder***" OR "**Affective Disorder***" OR "**Neurotic Disorder***" OR "**Antisocial Personality Disorder***" OR "**Borderline Personality Disorder***" OR "**Compulsive Personality Disorder***" OR "**Dependent Personality Disorder***" OR "**Histrionic Personality Disorder***" OR "**Paranoid Personality Disorder***" OR "Passive-Aggressive **Personality Disorder***" OR "**Schizoid Personality Disorder***" OR "**Schizotypal Personality Disorder***" OR (**anankastic** within 1 **person**) OR (**Asocial** within 1 **person**) OR (**Antisocial** within 1 **person**) OR (**Avoidant** within 1 **person**) OR (**Borderline** within 1 **person**) OR (**Dependent** within 1 **person**) OR (**Dissocial** within 1 **person**) OR (**Histrionic** within 1 **person**) OR (**Narcissistic** within 1 **person**) OR (**Obsessive** within 1 **person**) OR (**Compulsive** within 1 **person**) OR (**Paranoid** within 1 **person**) OR ("Passive-aggressive" within 1 **person**) OR (**Sadomasochistic** within 1 **person**) OR (**Disorders N1** ("**Psychotic Feature***")) OR "**Capgras Syndrome**" OR "**Paranoid Disorder***" OR "**Psychotic Disorder***" OR ((**Sexual** OR **Gender**) within 1 **Disorder***) OR (**Disorder*** within 1 "**Sex Development**") OR ("**Sexual Dysfunction***" **N1 Psychological**) OR "**Somatoform Disorder***" OR "**Body Dysmorphic Disorder***" OR "**Conversion Disorder***" OR "**Hypochondriasis**" OR "**Neurasthenia**" OR "**Adjustment Disorder***" OR "**Anxiety Disorder***" OR "**Impulse Control Disorder***" OR "**Reactive Attachment Disorder***" OR "**Dissociative Disorder***" OR "**Multiple Personality Disorder***" OR "**Cognitive Disorder***" OR "**Stress Disorder***" OR "**Cognition Disorder***" OR "**Consciousness Disorder***" OR "**Panic Disorder***" OR "**Phobic Disorder***" OR "**adjustment disorder***" OR "**overactive disorder***" OR "**disintegrative disorder***" OR "**pervasive developmental disorder***" OR "**hyperkinetic disorder***" OR **Dementia** OR **Alzheimer*** OR **amnesi*** OR **delirium** OR **hallucinosis** OR **delusional** OR **asthenic** OR "**emotionally labile**" OR **Posttraumatic** OR "**post traumatic**" OR **postencephalitic** OR **postconcussion*** OR "**trance disorder***" OR "**possession disorder***" OR (**anxious** within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR (**anxiety** within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR "**multiple personalit***" OR **dissociate** OR **neurasthenia** OR **depersonali?ation** OR **derealisation** OR **derealization** OR **suicid*** OR **parasuicid*** OR "**Self harm**" OR "**self injur***" OR **Coprophagia** OR "**Female Athlete Triad Syndrome**" OR "**Pica**" OR "**Factitious Disorder***" OR "**Munchausen Syndrome**" OR "**Trichotillomania**" OR "**Agoraphobia**" OR "**Neurocirculatory Asthenia**" OR **hebephreni*** OR **oligophreni*** OR **somatisation** OR (**psychiatric** within 1 (**problem*** OR **difficult*** or **disorder*** or **illness**)) OR **Psychosis** OR ("**mental health**" within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR "**psychological disturbance***" or "**psychologically disturbed**" OR **neuros*** OR "**psychological stress**" OR "**psychological distress**" OR "**mental health status**" OR "**mental stress**" OR "**mental health patients**" OR "**mental health patient**" OR "**mental health treatment**" OR "**mentally ill**" OR "**severe stress**" OR **comorbid***)) or(AB= ("**Substance abus***" OR "**Drug user***" OR "**Drug Habituation**" OR "**Drug Use Disorder***" OR "**Substance Use Disorder***" OR "**Drug Dependenc***" OR "**Withdrawal Syndrome***" OR "**Dependency disorder***" OR ((**drug** or **substance**) within 1 (**abuse*** or **misuse** or **depend*** or **addict***)) OR **Schizo*** OR **Catatonia** OR **catatonic** OR **Depression** OR "Bi-polar" OR **bipolar** OR **Mania** OR **Hypomania** OR **Cyclothymia** OR **Dysthymia** OR "**Mood disorder***" OR "**Depressive Disorder***" OR **OCD** OR "**obsessive compulsive**" OR "**Eating Disorder***" OR **bulimi*** OR "**Bulimia Nervosa**" OR **anorexi*** OR "**anorexia nervosa**" OR "Binge-**Eating Disorder***" OR "**Personality disorder***" OR "**Affective Disorder***" OR "**Neurotic Disorder***" OR "**Antisocial Personality Disorder***" OR "**Borderline Personality Disorder***" OR "**Compulsive Personality Disorder***" OR "**Dependent Personality Disorder***" OR "**Histrionic Personality Disorder***" OR "**Paranoid Personality Disorder***" OR "Passive-Aggressive **Personality Disorder***" OR "**Schizoid Personality**

Disorder*" OR "**Schizotypal Personality Disorder***" OR (**anankastic** within 1 **person**) OR (**Asocial** within 1 **person**) OR (**Antisocial** within 1 **person**) OR (**Avoidant** within 1 **person**) OR (**Borderline** within 1 **person**) OR (**Dependent** within 1 **person**) OR (**Dissocial** within 1 **person**) OR (**Histrionic** within 1 **person**) OR (**Narcissistic** within 1 **person**) OR (**Obsessive** within 1 **person**) OR (**Compulsive** within 1 **person**) OR (**Paranoid** within 1 **person**) OR ("Passive-aggressive" within 1 **person**) OR (**Sadomasochistic** within 1 **person**) OR (**Disorders N1** ("**Psychotic Feature***")) OR "**Capgras Syndrome**" OR "**Paranoid Disorder***" OR "**Psychotic Disorder***" OR ((**Sexual** OR **Gender**) within 1 **Disorder***) OR (**Disorder*** within 1 "**Sex Development**") OR ("**Sexual Dysfunction***" **N1 Psychological**) OR "**Somatoform Disorder***" OR "**Body Dysmorphic Disorder***" OR "**Conversion Disorder***" OR "**Hypochondriasis**" OR "**Neurasthenia**" OR "**Adjustment Disorder***" OR "**Anxiety Disorder***" OR "**Impulse Control Disorder***" OR "**Reactive Attachment Disorder***" OR "**Dissociative Disorder***" OR "**Multiple Personality Disorder***" OR "**Cognitive Disorder***" OR "**Stress Disorder***" OR "**Cognition Disorder***" OR "**Consciousness Disorder***" OR "**Panic Disorder***" OR "**Phobic Disorder***" OR "**adjustment disorder***" OR "**overactive disorder***" OR "**disintegrative disorder***" OR "**pervasive developmental disorder***" OR "**hyperkinetic disorder***" OR **Dementia** OR **Alzheimer*** OR **amnesi*** OR **delirium** OR **hallucinosis** OR **delusional** OR **asthenic** OR "**emotionally labile**" OR **Posttraumatic** OR "**post traumatic**" OR **postencephalitic** OR **postconcussion*** OR "**trance disorder***" OR "**possession disorder***" OR (**anxious** within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR (**anxiety** within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR "**multiple personalit***" OR **dissociate** OR **neurasthenia** OR **depersonali?ation** OR **derealisation** OR **derealization** OR **suicid*** OR **parasuicid*** OR "**Self harm**" OR "**self injur***" OR **Coprophagia** OR "**Female Athlete Triad Syndrome**" OR "**Pica**" OR "**Factitious Disorder***" OR "**Munchausen Syndrome**" OR "**Trichotillomania**" OR "**Agoraphobia**" OR "**Neurocirculatory Asthenia**" OR **hebephreni*** OR **oligophreni*** OR **somatisation** OR (**psychiatric** within 1 (**problem*** OR **difficult*** or **disorder*** or **illness**)) OR **Psychosis** OR ("**mental health**" within 1 (**problem*** OR **difficult*** or **disorder*** or **ill***)) OR "**psychological disturbance***" or "**psychologically disturbed**" OR **neuros*** OR "**psychological stress**" OR "**psychological distress**" OR "**mental health status**" OR "**mental stress**" OR "**mental health patients**" OR "**mental health patient**" OR "**mental health treatment**" OR "**mentally ill**" OR "**severe stress**" OR **comorbid***)) or(**TI**= (**disabled** OR **disabilit*** OR **handicap*** or "**physical* impair***" OR "**functional* impair***" OR **incapacitated** OR "**physically challenged**" OR "**wheelchair user***" or "**sensory impairment***" OR "**hearing impair***" OR "**auditory impair***" OR "**Speech Impair***" OR "**speech impediment***" OR "**visual impairment***" OR "**visually impaired**" OR "**hearing loss**" OR **deaf*** OR **blindness** OR "**Vision Disorder***" OR "**Partial* sight***" OR **Cataract*** OR "**Macular degeneration**" OR **mutism** OR **mute** OR (**Chronic** within 1 (**condition*** or **illness*** or **disease***)) OR ("long-term" within 1 (**condition*** or **illness*** or **disease*** or **sick***)) OR **Stroke** OR **Cancer** OR **HIV** OR "**Mobility impair***" OR "**Impaired mobility**" OR **Arthritis** OR **osteoarthritis** OR "**Cerebal Palsy**" OR "**Cystic Fybrosis**" OR **Polio** OR "**Spina Bifida**" OR "**Spinal Injury**" OR "**Paraplegic***" OR **Quadriplegic*** OR **Tetraplegic*** OR "**Muscular Dystrophy**" OR **Parkinson*** OR **Huntington*** OR **Lupus** OR "**Motor Neurone**" OR "**Multiple Sclerosis**" OR "**Post-injury**" OR "**post injury**" OR "**Head Injur***" OR "**brain injur***" OR "**Limbless**" OR **Amputee*** OR "**spinal cord injur***" OR "**Back pain**")) or(AB= (**disabled** OR **disabilit*** OR **handicap*** or "**physical* impair***" OR "**functional* impair***" OR **incapacitated** OR "**physically challenged**" OR "**wheelchair user***" or "**sensory impairment***" OR "**hearing impair***" OR "**auditory impair***" OR "**Speech Impair***" OR "**speech impediment***" OR "**visual impairment***" OR "**visually impaired**" OR "**hearing loss**" OR **deaf*** OR **blindness** OR "**Vision Disorder***" OR "**Partial* sight***" OR **Cataract*** OR "**Macular degeneration**" OR **mutism** OR **mute** OR (**Chronic** within 1 (**condition*** or **illness*** or **disease***)) OR ("long-term" within 1 (**condition*** or **illness*** or **disease*** or **sick***)) OR **Stroke** OR **Cancer** OR **HIV** OR "**Mobility impair***" OR "**Impaired mobility**" OR **Arthritis** OR **osteoarthritis** OR "**Cerebal Palsy**" OR "**Cystic Fybrosis**" OR **Polio** OR "**Spina Bifida**" OR "**Spinal Injury**" OR "**Paraplegic***" OR **Quadriplegic*** OR **Tetraplegic*** OR "**Muscular Dystrophy**" OR **Parkinson*** OR **Huntington***

OR **Lupus** OR "**Motor Neurone**" OR "**Multiple Sclerosis**" OR "**Post-injury**" OR "**post injury**" OR "**Head Injur***" OR "**brain injur***" OR "**Limbless**" OR **Amputee*** OR "**spinal cord injur***" OR "**Back pain**")) or(**TI**= ((**learning** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**mental*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard*** or **intellect***)) OR (**intellect*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**cognitive*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**developmental*** near (**delay*** OR **difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR "**subnormal intell***" OR "**down* syndrome**" OR **Autis*** OR "**Rett?s syndrome**" OR (**learn*** near **problem***) OR (**behav*** near **problem***) OR "**behav* disorder**" OR "**adhd**" OR "**asperger***" OR "**fragile within 1 syndrome**" OR (**attention*** within 1 **deficit***) OR **hyperactiv*** OR "**conduct disorder***" OR (**conduct** near **problem***))) or(AB= ((**learning** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**mental*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard*** or **intellect***)) OR (**intellect*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**cognitive*** near (**difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR (**developmental*** near (**delay*** OR **difficult*** or **disable*** or **disabilit*** or **disorder*** or **deficien*** or **incapacity** or **handicap*** or **impair*** or **retard***)) OR "**subnormal intell***" OR "**down* syndrome**" OR **Autis*** OR "**Rett?s syndrome**" OR (**learn*** near **problem***) OR (**behav*** near **problem***) OR "**behav* disorder**" OR "**adhd**" OR "**asperger***" OR "**fragile within 1 syndrome**" OR (**attention*** within 1 **deficit***) OR **hyperactiv*** OR "**conduct disorder***" OR (**conduct** near **problem***))))

And

[Free-text search for systematic reviews] (**TI**=(**systematic** within 2 **review**) OR **TI**=(**systematic** within 2 **review***) OR **TI**="meta-analysis" OR AB= (**systematic** within 2 **review**) OR AB= (**systematic** within 2 **review***) OR AB="meta-analysis" OR DE="**Review articles**")

Appendix 8: Screening criteria for the in-depth review

Stage	Criterion*		Rationale
		Reviews must:	
A – Screen reviews for usability, currency and relevance	1	** Be published in English	The timescale of this review of evidence did not allow for translation of studies published in other languages
	2	** Be reported in or after 2000	This allowed the map to focus upon recent reviews of research
	3	** Not focus exclusively on children and/or young people, or report on a mixed population with no findings specific to over 18s	To identify reviews that provide findings on the topic(s) of interest
	4	** Not be restricted to studies from non-OECD countries	As the purpose of this review is to inform UK practice, this criterion ensures a reasonable level of comparability with the modern and well-funded social care system in the UK
	5	** Report findings from social care populations	To identify reviews that provide findings for the population(s) of interest
	6	** Be a systematic review that describes a search strategy and criteria for including studies	To ensure included reviews have taken reasonable steps to minimise bias
	7	** Focus on social care services (Note: Providers did not need to be specified for an intervention to be included, but reference to certain job titles (specifically doctor, nurse, physiotherapist, psychotherapist) was taken to indicate that a service was not primarily a social care service.)	To identify reviews that provide findings on the topic(s) of interest
	8	** Examine the effects of interventions	Some systematic reviews exist that address different kinds of research question, for example user and provider perspectives on services
	9	** Measure one or more of the ASCOF outcomes (quality of life, prevention, satisfaction,	To identify reviews that provide findings on the topic(s)

		safeguarding)	of interest
	10	** Not have a limited social care focus (i.e. reviews were excluded if they: i) examined a range of interventions that included social care interventions, without providing summary statements specific to social care interventions; or ii) solely examined multi-disciplinary interventions, unless these were reported as led by social workers or occupational therapists)	To identify reviews that provide findings on the topic(s) of interest
	11	** If focused on older people, not use an inclusion criterion of age < 65	To identify reviews that provide findings for the population(s) of interest
	12	** Report usable summary statements of findings relevant to ASCOF outcomes	The timescale of this review did not allow for a synthesis of findings reported on a study by study basis, but required that review authors had already synthesised individual study findings, either in a narrative or a numerical form
Additional substantive criterion for in-depth review		Be reported in or after 2007	This allowed the review to focus upon the most recent reviews of research. It assumes that earlier reviews are likely to have been published after 2006 in an updated form
Additional substantive criterion for in-depth review		Report findings from social care populations other than carers	During the course of the systematic map, an existing systematic review of systematic reviews was identified on interventions to support carers
B – Screen reviews for review quality		Use a comprehensive search strategy involving two or more electronic databases	To ensure inclusion of comprehensive reviews
		Explicitly describe the inclusion criteria applied to studies in the review and present these as part of a report's methods section	To ensure that reviews are systematic rather than selective, i.e. to remove any ambiguity about the scope of included reviews so it is clear what evidence they contribute

			to this review
C – Screen reviews for usable data		Provide one or more summary statements that were produced exclusively from studies with a controlled trial design	To ensure evidence used to identify effective interventions is reasonably trustworthy (findings used for Chapter 3 and 4)
		Conduct a meta-analysis and provide details of the size of effects	To enable reviewers to interpret evidence about the scale of impact of interventions (findings used for Chapter 5)

* For definitions of the concepts used in these criteria, see Section 7.3

** Indicates that this was one of the initial criteria used to produce a systematic map

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