



THE
Evidence
Centre



Health Education East of England

Does health coaching work?

A rapid review of empirical evidence

April 2014

Key themes

What is health coaching?

If people are confident in managing their health, they may feel better, be more satisfied with health services and have less need of services. This is important given the significant staffing and financial challenges facing the NHS and the burden of long-term conditions which accounts for about 70% of NHS spending. Health coaching has been proposed as a method to help reduce this burden by supporting people to take more responsibility for their health and wellbeing.

The term 'health coaching' refers to a diverse set of interventions, but all with a shared aim of helping people set goals and take action to improve their health or lifestyle. Health coaching has been defined as *"a patient-centred process that... entails goal setting determined by the patient, encourages self-discovery in addition to content education, and incorporates mechanisms for developing accountability in health behaviours."*¹

There are many types of health coaching. Health coaching may be facilitated by people with long-term conditions (peers), nurses, doctors, pharmacists, therapists or other allied health professionals. It can take place in person, by telephone, by email or online, or using a combination of approaches. It may be a one-off occurrence or occur regularly, such as every week or month for several months. Health coaching can be used to support people with long-term conditions or those who wish to make changes to their lifestyle.

Table A illustrates the range of variables within health coaching initiatives. This is important because it shows that 'health coaching' is not a single, well-defined intervention.

Health coaching is popular in North America and Australia and there is an increasing interest in rolling out this approach in the UK. To be sure that UK initiatives are based upon the most up-to-date evidence about whether health coaching is effective and who it may work best for, **this rapid review searched ten bibliographic databases for studies available as at March 2014. A total of 275 studies about health coaching were included, plus 67 studies about training professionals to support behaviour change more generally.**

The review aimed to support Health Education East of England make decisions about further embedding its programme in health coaching training. Health coaching has been piloted in the East of England since 2010. From April 2013 to October 2014, Health Education East of England has been building on this further, with a two-day training programme rolled out to almost 800 clinicians from 31 organisations, including nurses, allied health professionals and doctors. Twenty-four trainers completed a six-day accredited programme to train people in how to use health coaching skills when delivering usual care (rather than as a standalone intervention).

Table A: Taxonomy of health coaching characteristics based on research

Focus	Attributes	Examples
Characteristics of the participant	<u>Who</u> : Who is the participant?	<ul style="list-style-type: none"> Someone with a long-term physical condition Someone with a specific short-term condition or need (eg pregnancy) Someone with mental health issues Someone who may seek to improve healthy behaviours (diet, exercise, alcohol, smoking) An employee taking part in a general workplace health promotion programme
Characteristics of the coach	<u>Who</u> : Who is the coach?	<ul style="list-style-type: none"> Peer Nurse Doctor Healthcare assistant Pharmacist Other
Characteristics of the health coaching	<u>What</u> : Is health coaching delivered alone or as part of a broader intervention?	<ul style="list-style-type: none"> Standalone intervention One component of broader intervention
	<u>How</u> : How is health coaching delivered?	<ul style="list-style-type: none"> Face-to-face Telephone Online / email / smartphone app
	<u>How many</u> : How many people are coached simultaneously?	<ul style="list-style-type: none"> One-to-one support Group support
	<u>How long</u> : What is the duration of health coaching support?	<ul style="list-style-type: none"> One-off One month or less Less than six months Six months or longer
	<u>How many</u> : How many health coaching sessions are included?	<ul style="list-style-type: none"> One session Two to five sessions Six to ten sessions 11 to 20 sessions 21+ sessions
	<u>How often</u> : How often are sessions run?	<ul style="list-style-type: none"> Every week Every fortnight Every month Every two months, and so on

Is health coaching effective?

There is promising evidence about health coaching, particularly for supporting behaviour change (see Table B). However, there are also a number of caveats to bear in mind when interpreting this evidence, as outlined on page five.

Table B: Impact of health coaching

Impact	Review	Random trial	Other study
Improved self-efficacy	0% of 1 study	75% of 16 studies	92% of 26 studies
Improved self-care behaviours	0% of 6 studies	59% of 36 studies	89% of 37 studies
Improved health outcomes	33% of 6 studies	37% of 60 studies	84% of 43 studies
Reduced service use or cost	25% of 4 studies	30% of 12 studies	70% of 10 studies

Improving attitudes and self-efficacy

One systematic review, 16 randomised trials and 26 other studies examined the impact of health coaching on people's attitudes and self-efficacy. 0% of the reviews, 75% of randomised trials and 92% of other studies found a benefit. In other words, **there is some evidence that health coaching can support people's motivation to self-manage** or to change their behaviours, and their confidence in their ability to do so.

Improving behaviour

Six systematic reviews, 36 randomised trials and 37 other studies examined the impact of health coaching on people's behaviours. 0% of reviews, 59% of trials and 89% of other studies found a benefit. In other words, **there is some evidence that health coaching can support people to adopt healthy behaviours** and lifestyle choices. Research has most commonly cited benefits in increasing physical activity, eating more healthily and reducing smoking.

Improving health outcomes

Six systematic reviews, 60 randomised trials and 43 other studies examined the impact of health coaching on health outcomes. 33% of reviews, 37% of trials and 84% of other studies found a benefit. In other words, **there is mixed evidence about the impact of health coaching on physical outcomes** such as cholesterol, blood pressure, blood sugar control and weight loss. This may be because it takes time to demonstrate changes in clinical indicators and many studies do not include long follow-up periods or large sample sizes.

Improving service use and costs

Four systematic reviews, 12 randomised trials and 10 other studies examined service use and costs. 25% of reviews, 33% of trials and 87% of other studies found a benefit. **There is insufficient evidence to conclude whether health coaching reduces healthcare use or costs.** Most studies are from outside the UK, making generalisation difficult.

Who does health coaching work for?

Targeting appropriately

One systematic review, nine randomised trials and 23 other studies commented about whether health coaching works better for some demographic groups than others. These studies did not tend to compare health coaching versus another initiative, but rather explored who gained most from a specific health coaching programme.

The evidence suggests that health coaching **may be most effective for people who are highly motivated to change from the outset and who have the most severe conditions or unhealthy lifestyles**. There is also some evidence that women may take to health coaching more readily than men.

Less advantaged groups

The review did not identify studies that sought to explore how to make health coaching more accessible or effective for less advantaged groups. There are examples of health coaching being used with people from lower socio-economic groups, minority ethnic groups and the homeless, but these studies did not explore how health coaching may need to be adapted for those groups.

The small amount of evidence available suggests that **health coaching may be just as effective with less advantaged groups**, but that a greater number of health coaching sessions may be needed before an impact is demonstrated.

Who makes the best coaches?

Different types of coaches

Two systematic reviews, six randomised trials and nine other studies examined different types of coaches. These studies suggest that people with long-term conditions who have received training in health coaching can be just as effective at health coaching as health professionals. Nurses, doctors and allied health professionals may be equally effective, though there are few direct comparisons made.

There are many other studies about health coaching provided by peers, nurses, doctors, pharmacists, allied health professionals and students, but these do not compare different types of coaches. **There is not enough evidence to suggest that one type of coach is more effective than others**. Many people may make good coaches, with appropriate training.

Training coaches

One randomised trial and 12 other studies examined approaches for providing training in health coaching skills and 67 additional studies examined training in behaviour change techniques, which may form a component of health coaching.

There is not enough evidence to conclude that one type of training is more effective than others. However, trends from the literature suggest that **training could usefully be at least two to five days in duration, allow for practice and observation, include role play and incorporate refreshers** and follow-ups to assess competency and motivate professionals to use their skills in practice.

Caveats with the evidence

Despite these positive trends, there are some caveats.

1. Variation in interventions

There has been no clear definition of what comprises health coaching and studies have used this or similar terms to represent widely varying interventions.

As described above, health coaching can take a variety of forms so it is difficult to say that health coaching as a concept works because some interventions may be several months long and some might be one-off, some might be delivered by peers and others by professionals, some might be telephone-based and others delivered face to face, and so on. The role that coaches take and the competencies they have can also vary markedly. In short, it is difficult to compare studies because the interventions included are vastly different, much like comparing apples and pears.

This means that where studies have found that health coaching does not work, it is important to consider the exact health coaching methods, providers, duration and frequency used rather than assuming the concept as a whole may be flawed.

2. Variations in quality of evidence

Furthermore, as illustrated in Table B, the quality of the evidence varies widely. The review has weighted the quality of evidence based on study design, whereby randomised trials and systematic reviews are potentially more robust than other studies. Many of the studies that have found positive outcomes from health coaching are not systematic reviews or randomised trials.

3. Lack of comparative evidence

Most studies do not compare health coaching with other alternatives. This means that even where studies suggest that health coaching has improved attitudes or behaviours over time, it is not possible to say whether health coaching has done this more quickly or effectively than usual care or other types of support.

Furthermore, there is little evidence about the cost-effectiveness of health coaching. Thus studies may have found positive benefits, but they do not explore at what cost or the opportunity costs involved.

4. Generalisability issues

Much of the evidence available about health coaching comes from a US context, where health systems, attitudes, commissioning and payments and are very different from the UK. Whilst studies from other countries can provide useful insights into potential trends, it is usually not possible to transfer interventions from one health ecosystem to another without adaptation.

Importantly, most of the evidence relates to health coaching set up as a separate intervention rather than used within routine practice, such as GP consultations so it may be difficult to extrapolate the findings to the effects of using health coaching within routine practice. It remains unclear whether health coaching from a clinician with whom people have an established relationship has greater benefits.

Planning for the future

Bearing in mind these caveats, teams in the UK are recognising the potential of health coaching to empower people, support healthier lifestyles and reduce the burden of long-term conditions for individuals and for health and social services. Health coaching is not a panacea and will not automatically lead to improvements in health outcomes or service use, but the evidence suggests 'top tips' to make the most of health coaching.

Top tips for selecting participants

- Health coaching appears to work best for people who are **motivated to change** and those who have the most severe disease. Health coaching also has a role in supporting a change in motivation, though this takes time.
- Health coaching may be **just as effective for less advantaged groups**, but more time may be needed to show an impact.

Top tips for selecting coaches

- **Nurses, doctors, allied health professionals and peers** can all provide health coaching if appropriately trained.
- Training of two to five days duration, with **practical activities, role plays, observation and follow-up** has been found to work well. A brief intervention is unlikely to disseminate health coaching skills well. More in-depth training may be required which focuses on shifting the mind-set of coaches towards being 'partners' helping to support change.

Top tips for providing health coaching

- There are **many opportunities to embed health coaching** as part of routine care. Health coaching can be provided in any care settings and in people's homes.
- Health coaching using **face-to-face or telephone sessions** may be more effective than relying solely on automated or electronic health coaching. There is no clear evidence that in-person health coaching is more effective than telephone health coaching.
- Health coaching programmes could **combine a variety of methods**, such as an initial meeting with a coach followed by monthly calls.
- There is no clear evidence about how frequently health coaching should occur but health coaching **every one to two weeks** for several months has often been found to work well to build relationships and support behaviour change.

Top tips for demonstrating impact

- Local and regional teams in the UK can add to the evidence base by building in robust evaluation which focuses on **longer-term outcomes** and health service use. Comparing those who receive and do not receive health coaching is essential.
- There is a need to gather and publish more robust information about the **costs and cost-effectiveness** of health coaching.

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This review was completed over a three-week period by The Evidence Centre for Health Education East of England (HEEoE). It complements the East of England Health Coaching Development Skills programme and evaluation, rolled out to almost 800 clinicians between April 2013 and October 2014. The review is based on studies principally relating to standalone health coaching services in the US whereas the approach in the East of England supports health coaching as part of a person's usual care. For more information about the Health Coaching Programme see: www.eoeleadership.nhs.uk/healthcoaching

Part 1:

What is health coaching?

Setting the scene

The increasing impact of long-term conditions on health, quality of life and costs is well known. New approaches are required to improve patient activation, confidence, and healthy behaviours. Health coaching may be one of a suite of methods for enhancing patient self-management.

From 2010, the East of England began piloting health coaching. From April 2013 to October 2014, Health Education East of England has embedded the initiative further, with a two-day training programme rolled out to almost 800 clinicians from 31 organisations, including nurses, allied health professionals and doctors. Twenty-four trainers completed a six-day accredited programme to train people in how to use health coaching skills when delivering usual care.

Health Education East of England is evaluating the impacts of the programme and compiling other evidence. To feed into this, this review describes empirical evidence about the impacts of health coaching.

Part 1 explores what health coaching is and why it may be important. Part 2 describes research about the impacts of health coaching. Part 3 explores whether health coaching works better for some people than others and Part 4 describes the variety of professionals using health coaching skills and how they can learn those skills. Part 5 summarises the implications of the empirical evidence for policy makers and practitioners.

The challenge

Engaging people in keeping themselves well is an essential component of reducing ill health and the demand for health services.² Supporting people to be active participants in their care has important impacts on satisfaction, the extent to which people adhere to treatment, relationships between patients and professionals and long-term health outcomes.^{3,4,5,6,7,8,9,10} How people think and feel about their health impacts on what they do.^{11,12,13,14,15,16} If people feel more confident about managing their own health, they may have better health outcomes.^{17,18,19,20,21,22,23,24,25}

Research from around the world suggests that people want to be more involved in their care,^{26,27,28,29} but often this does not happen in practice.^{30,31}

Patient activation is increasingly important given financial challenges and the need to make best use of limited staffing and service capacity.³² In the UK, health services are facing significant challenges. The population continues to grow in size and people are living longer, but not always in good health.^{33,34} More than 17 million people are living with one or more long-term conditions in Britain. These conditions have major impacts on people's health and wellbeing. The impacts are not only physical, such as reduced mobility, but also psychological, impacting on people's resilience and feelings of independence and control. This may increase people's need for support from healthcare and social services.

People with long-term conditions use the highest proportion of GP consultations and days in hospital. In fact, people with long-term conditions account 70% of the overall NHS spend.³⁵ The demand for health services outstrips what can be provided and staffing and financial resources are at a premium.

The number of people with three or more long-term conditions is predicted to rise by a million to 2.9 million by 2018 and it is estimated that by 2020 three quarters of all deaths will be from long-term conditions.³⁶

All of these factors have increased the focus on supporting people to be involved in decisions about their care and taking more responsibility for their wellbeing. The health White Paper *Equity and Excellence: Liberating the NHS* and the 2011 Health and Social Care Bill both emphasise strengthening people's voice.^{37,38} There is a move away from a paternalistic healthcare model where clinicians 'do things to' and make decisions for people towards helping people take more control of their health and wellbeing.

New approaches are required to:

- provide people with the knowledge, skills and confidence to self-manage and thrive;
- address the challenges associated with lifestyle change whilst reducing service use and cost;
- help all groups feel 'activated,' especially those with fewer skills and poorer quality of life who may require more intensive support;
- improve patient experience.

Part of the solution

Health coaching may be part of the solution to address these challenges. **'Health coaching' is an umbrella term used to describe many different interventions** that 'coach' or actively support people to self-care and a move away from a dependent model to one that is empowering and shared, based around a person's own aspirations and goals.

Health coaching has been used to support shared decision-making, to empower people with long-term conditions to self-manage, to support health improvement and to optimise physical and mental health. It may be used as an adjunct to clinical skills in routine consultations, be offered in dedicated health coaching appointments or be part of wider wellness programmes.

Whilst health coaching is common in the US and Australia, it is somewhat novel in the UK. Some parts of the UK are testing the value of health coaching. For example, over the past year NHS Health Education East of England ran a series of two day health coaching training programmes for clinicians from acute trusts, primary care and community service providers and clinical commissioning groups. The aim is to provide clinicians with additional consultation skills and a mind-set that helps them transform the patient-clinician relationship and move from the role of 'expert' to 'enabler.' The programme is being evaluated through case studies with five organisations. In addition to the qualitative evaluation, NHS Health Education East of England wanted to compile empirical evidence about the potential value of health coaching and thus commissioned this rapid review.

Reviewing the evidence

The aims of the review were to compile readily available empirical evidence to:

- assess the **impact of health coaching** on outcomes for patients and the health service;
- examine whether some ways of **delivering health coaching** are more effective than others;
- understand **which patients** health coaching may be most effective for;
- consider how health coaching can be **adapted** for people who are less activated or from lower socio-economic groups;
- understand whether some professionals are more able to adopt and use health coaching skills or whether some **types of coaches** are associated with better outcomes;
- examine any evidence of the impact of **health coaching training** for clinicians.

In other words, the focus was on exploring what, how and who questions: what are the impacts of health coaching, how can health coaching work best in practice, and who does health coaching work best and least for?

Annex 1 describes the methods used to identify and synthesise the evidence. In brief, two reviewers independently searched ten bibliographic databases plus websites and reference lists to identify published or grey literature about the impacts of health coaching. Studies specifically labelling themselves as 'health coaching' or 'health coaching' were eligible for inclusion. The review was completed over a three-week timeframe.

More than 7,000 studies were screened and 275 studies were included in the review. Seven percent of these were systematic reviews, 40% were randomised controlled trials and 53% were studies of other designs (see Table 1).

In total 6% were from the UK, 18% were from other parts of Europe, 61% were from North America and 15% were from other countries.

Table 1: Studies included in the review

Country	Review	Random trial	Other studies	Total number
UK	5	4	7	16
Europe	3	25	22	50
North America	7	66	94	167
Other countries	3	14	25	42
Total	18	109	148	275

In addition, 67 studies were included about training clinicians to support behaviour change more broadly: five systematic reviews, 13 randomised trials and 49 other studies.

What is health coaching?

Towards a definition

Health coaching helps people consider their goals and how to make changes to improve their health.³⁹ From the 1990s onwards this approach gained popularity in North America, particularly as a way of supporting people with alcohol and substance use issues. Over the past ten years it has also gained momentum in many other parts of the world for supporting people with long-term conditions, lifestyle issues and behaviour change.⁴⁰

There is no one universally accepted definition of health coaching and there are many different models or frameworks that can be thought of as health coaching or used within a health coaching approach. However, most conceptions of health coaching have some common characteristics, including:^{41,42}

- empowering people to take ownership of their health
- focusing on people's goals rather than what professionals want to achieve
- developing a collaborative relationship between the participant and coach
- assuming that people are resourceful and have potential
- helping people assess where they are and what they would like to achieve
- helping people plan how to achieve their goals in easy steps and do things they may have struggled to do in the past
- challenging habits and beliefs that inhibit people or are barriers to positive change

Health coaching has been described as *"a goal-oriented, client-centred partnership that is health-focused and occurs through a process of client enlightenment and empowerment."*⁴³

Health coaching differs from traditional approaches which tend to direct information 'at' people and ask people to do the things that health professionals instruct them to do. In the traditional model, professionals are seen as having expert knowledge and are tasked with imparting this to people and their families. In contrast, health coaching strives to help people and professionals work in partnership. People themselves are seen as having important knowledge and as being experts in their own wellbeing.⁴⁴ Using questioning and supportive techniques, health coaches help people talk about what they want to achieve, what is troubling them, what they want to change, what support they have to help make changes and what difficulties need to be addressed or minimised.⁴⁵ The health coach's main role is not to teach, advise or counsel people but rather to support people to plan and reach their own goals.

A systematic review of 284 theoretical and empirical articles about health and wellbeing health coaching aimed to draw out the characteristics of health coaching in order to develop a robust definition.

The reviewers identified an emerging consensus in what is referred to as health coaching, namely:⁴⁶

“a patient-centred process that is based upon behaviour change theory and is delivered by health professionals with diverse backgrounds. The actual health coaching process entails goal setting determined by the patient, encourages self-discovery in addition to content education, and incorporates mechanisms for developing accountability in health behaviours.”

“The literature operationalised health and wellness health coaching as a process that is fully or partially patient-centred (86% of articles), included patient determined goals (71%), incorporated self-discovery and active learning processes (63%) (vs more passive receipt of advice), encouraged accountability for behaviours (86%), and provided some type of education to patients along with using health coaching processes (91%). Additionally, 78% of articles indicated that the health coaching occurs in the context of a consistent, ongoing relationship with a human coach who is trained in specific behaviour change, communication, and motivational skills.”

Like sports coaching, health coaching aims to help people achieve their potential and goals, but health coaching is not focused on teaching a particular skill or technique. Rather, it encourages people to explore what is important to them and provides encouragement and support to take steps towards achieving those goals.

The term health coaching is often confused with or used interchangeably with methods such as motivational interviewing, counselling or consulting skills but it is not the same thing. Whilst motivational interviewing may be used as one technique within health coaching,⁴⁷ health coaching is a wider framework, mind-set or approach rather than a specific technique.⁴⁸ A key distinguishing feature of health coaching is how professionals interact with and view people as resourceful, empowered and activated partners in care. The professional does not take responsibility for advice and outcomes, only for managing the process. Health coaching is also different from other approaches because it focuses mainly on solutions rather than problems, and the solutions are defined by people themselves.

There are a wide range of studies about motivational interviewing and behavioural counselling, but these techniques are not reviewed here. Other reviews have found that these techniques can support behaviour change, particularly regarding alcohol and drug misuse.^{49,50,51,52} Some effect sizes may be modest.^{53,54} The impacts on health service use and costs are mixed.⁵⁵ These are amongst many techniques sometimes used within health coaching.

Taxonomy of characteristics

Health coaching can be delivered in many formats including in person, by telephone and online.^{56,57} It may be offered to individuals or groups.⁵⁸

Many different people can facilitate health coaching, including people with long-term conditions themselves, nurses, doctors, medical and nursing students, health educators, psychologists, physical therapists, pharmacists, health assistants, social workers and occupational therapists, amongst others.^{59,60}

The 275 studies included in this review were used to develop a basic taxonomy of the characteristics of health coaching to illustrate the widely varying forms that health coaching may take (see Table 2). This is not an exhaustive list of all the possible attributes of health coaching, but aims to show that there is no 'standard' manner of facilitating health coaching.

Table 2: Taxonomy of health coaching characteristics based on research

Focus	Attributes	Examples
Characteristics of the participant	<u>Who</u> : Who is the participant?	<ul style="list-style-type: none"> Someone with a long-term physical condition Someone with a specific short-term condition or need (eg pregnancy) Someone with mental health issues Someone who may seek to improve healthy behaviours (diet, exercise, alcohol, smoking) An employee taking part in a general workplace health promotion programme
Characteristics of the coach	<u>Who</u> : Who is the coach?	<ul style="list-style-type: none"> Peer Nurse Doctor Healthcare assistant Pharmacist Other
Characteristics of the health coaching	<u>What</u> : Is health coaching delivered alone or as part of a broader intervention?	<ul style="list-style-type: none"> Standalone intervention One component of broader intervention
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	<u>How many</u> : How many people are coached simultaneously?	<ul style="list-style-type: none"> One-to-one support Group support
	<u>How long</u> : What is the duration of health coaching support?	<ul style="list-style-type: none"> One-off One month or less Less than six months Six months or longer
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	<u>How often</u> : How often are sessions run?	<ul style="list-style-type: none"> Every week Every fortnight Every month Every two months, and so on

Part 2:

Does health coaching work?

Impact on attitudes and self-efficacy

Available evidence

The review identified one systematic review, 16 randomised trials and 26 other studies focused on the effects of health coaching on attitudes, self-efficacy (confidence to self-manage or change behaviours) or satisfaction. Other studies may have included self-efficacy as a secondary outcome, but the studies in this section included self-efficacy or satisfaction as a major focus.

Patient activation, which combines someone's knowledge, skill, and confidence about managing their health and care is an important component of current policy. Tools such as the Patient Activation Measure (PAM) are being increasingly promoted to measure empowerment and activation.⁶¹ However this concept has not been well measured within empirical studies about health coaching. In fact, there are few studies that explore this concept in relation to health coaching.

Key trends

- **There is some evidence that health coaching can support people's motivation to self-manage** or to change their behaviours, and their confidence in their ability to do so.
- **0% of the reviews, 75% of randomised trials and 92% of other studies suggested that health coaching may have a positive effect** on people's attitudes towards changing their behaviour, their motivation or their self-confidence to manage their health (see Table 3).

Table 3: Direction of findings about attitudes and self-efficacy

Findings	% reviews	% trials	% other studies
Largely positive	0	75%	92%
Largely negative	0	19%	4%
Very mixed	100%	6%	4%
Total studies	1	16	26

Whilst the findings are very positive about the effects of health coaching on self-efficacy, it is important to note that most of the evidence is based on small, before-and-after or other observational studies. This means it is difficult to state that it was the health coaching approach that made a difference (versus merely having regular contact with a professional, for example).

Furthermore, whilst it may be tempting to assume that the increased confidence to make change associated with health coaching (self-efficacy) will lead to behavioural changes or improved clinical outcomes, the evidence about this is mixed. There is little research directly related to health coaching showing a link between increased self-efficacy and improved clinical or service use outcomes. In the wider literature, a number of authors have extolled the importance of improving self-efficacy or empowerment, but there is very mixed empirical evidence about whether self-efficacy and activation leads to improved outcomes. A number of studies about topics other than health coaching suggest that improving self-efficacy is associated with other improved outcomes, but a large number of other studies suggest that the relationship is more complex or have not found a direct link.^{62,63,64,,65,66,67,68,69,70}

Examples

Impacts on satisfaction

The feasibility and acceptance of health coaching is generally reported as high.^{71,72} Some research has explored the impact of health coaching on people's satisfaction with services.⁷³ For example, 241 people with long-term conditions were randomly assigned to health coaching through an internet portal or use of the portal without health coaching. After three months, people taking part in health coaching were more satisfied with their healthcare and thought their clinician was more likely to give them useful advice.⁷⁴

Elsewhere in the US, an analysis of one years' worth of data about a nurse telephone health coaching initiative found that having nurse health coaches available 24 hours a day was associated with increased patient satisfaction.⁷⁵

Impacts on attitudes

Health coaching may affect people's attitudes towards the medicines they are taking, their expectations about whether they can recover and live healthy lives or their level of 'activation' or readiness to change.⁷⁶

A randomised trial in the US assigned 26 people with acute low back pain and low to moderate recovery expectations to usual physiotherapy alone or with the addition of five sessions of telephone health coaching by a physiotherapist trained in health coaching. After 12 weeks the health coaching group improved significantly more than the control group in terms of recovery expectation.⁷⁷

In the Netherlands, 168 people prescribed antidepressants were randomly assigned to three in-person health coaching sessions from a pharmacist plus a 25-minute take-home video or usual care. Three months after the intervention ended, health coaching was associated with a better attitude towards their medication.⁷⁸

Not all studies find a change in attitudes, however, even if there are other positive impacts.⁷⁹

Impacts on self-efficacy

Studies from many parts of the world have suggested improvements in people's confidence in making changes following health coaching.^{80,81,82,83,84,85}

For instance, in Denmark 186 people with diabetes were randomly assigned to receive health coaching or education about oral health. Health coaching was associated with greater improvements in self-efficacy in tooth brushing. People with low or moderate self-efficacy at baseline were particularly likely to benefit.^{86,87}

In Japan, 24 people took part in 10 tele-health coaching sessions. Interviews with three coaches and nine patients plus analysis of logs kept by coaches suggested that health coaching helped patients to tell their own stories, encouraged them to experience and adopt fresh points of view and helped them to start working towards attainable goals.⁸⁸

However some trials have found that changes in self-efficacy and feelings of anxiety are mixed and may be short-term.⁸⁹

Examples in primary care

Improvements in self-efficacy have been noted when GPs, nurses, medical assistants and non-clinicians use health coaching skills in primary care.⁹⁰ For instance, in the US 250 people with diabetes were provided with a literacy-appropriate education guide and brief behaviour change health coaching which comprised a goal-setting meeting and nurse telephone follow-up at two and four weeks. At three-month follow-up, there were improvements in participants' knowledge, activation, self-efficacy, diabetes-related distress and self-reported behaviours.⁹¹

In the Netherlands, 133 people recently diagnosed with type 2 diabetes from 54 general practices were randomly assigned to usual care or three home visits by a peer (expert patient) who adhered to recommended treatment and lifestyle guidelines. The peer coach helped people set goals and these were evaluated during the next visit. Participants in the control group received care as usual. Health coaching was associated with improved self-efficacy, coping and saturated fat intake, especially for those with low self-efficacy at baseline.⁹²

Impacts for carers

Health coaching has also been found to improve the self-efficacy of people caring for someone with a long-term condition or other health issue.^{93,94,95} For instance, ten family caregivers of people with heart failure took part in three months of nurse telephone health coaching in the US. Health coaching was associated with reduced caregiver burden scores and increased self-reported confidence and preparedness for home management.⁹⁶

But not all evidence about self-efficacy is positive. Researchers in England provided 16 carers of people with eating disorders a dvd and telephone health coaching for a few months. Carers were satisfied with most aspects of the training and found dvds useful, but there were no recorded changes in confidence, distress or depression.⁹⁷

Health coaching may work best when one component of a wider support package. A randomised trial in the Netherlands assigned the carers of people with dementia to telephone health coaching alone, telephone health coaching plus respite day-care or day-care alone. Health coaching occurred every two to three weeks over a 20-week period. Caregivers who took part in health coaching in combination with respite care reported significantly less burden and more confidence compared to those who took part in health coaching only.⁹⁸

Types of health coaching

Studies of **health coaching provided by peers or novices** and those of health professional coaches have found equally favourable impacts on self-efficacy and satisfaction,⁹⁹ though studies did not compare different coaches directly.¹⁰⁰

For example, in the US layperson coaches worked with 120 parents of children with asthma. Having more coach contacts and more discussion was associated with improved confidence and readiness to adopt asthma management behaviours.¹⁰¹

There is also some evidence that virtual or electronic health coaching may have merit. A US study described a virtual coach implemented as a conversational character, providing health coaching via text-based and interactive dialogue with the participant. Health coaching was more effective in helping participants establish regular mindfulness meditation practice than self-administered training using written and audio materials. The coached group also felt more likely to change and had greater self-efficacy after health coaching.¹⁰²

Even a one-off health coaching session may improve short-term self-efficacy, though this does not usually last in the longer term. For example, a randomised trial in the US assigned 265 people with cancer and moderate or severe pain to usual care or tailored education and health coaching before a clinic visit. Immediately after the clinic visit, health coaching was associated with increased pain communication self-efficacy, though impacts did not last at six or 12-week follow-up.¹⁰³

Impact on behaviour

Available evidence

The review identified six systematic reviews, 36 randomised trials and 37 other studies focused on the effects of health coaching on people's behaviour.

Key trends

- **There is some evidence that health coaching can support people to adopt healthy behaviours** and lifestyle choices. Research has most commonly cited benefits in increasing physical activity, eating more healthily and reducing smoking.
- **0% of the reviews, 59% of randomised trials and 89% of other studies suggested that health coaching may have a positive effect on people's behaviour**, including reducing the use of alcohol and tobacco, eating more fruit and vegetables and exercising more regularly.
- Whilst some of these studies are single case reports or small samples, randomised trials are also well represented, meaning we may be able to be more confident about the quality of the evidence (see Table 4).

Table 4: Direction of findings about behaviour change

Findings	% reviews	% trials	% other studies
Largely positive	0%	59%	89%
Largely negative	50%	25%	0%
Very mixed	50%	16%	11%
Total studies	6	32	37

Examples

Findings from systematic reviews

One of the systematic reviews explicitly examined health coaching and the others assessed a range of different interventions, of which health coaching was one.

A review of 15 studies about health coaching reported that 40% found significant improvements in nutrition, physical activity, weight management or medication adherence. Features of effective programmes included goal setting (73% of studies), motivational interviewing (27%) and collaboration with healthcare providers (20%).¹⁰⁴

The other reviews, which focused on interventions to improve diet or physical activity, found either insufficient evidence to draw conclusions,^{105,106} mixed evidence about the benefits of health coaching¹⁰⁷ or no benefits of health coaching on behaviour change.¹⁰⁸

For example, a review of 38 randomised trials involving 9,445 participants explored strategies to improve adherence to dietary advice. Thirty-two out of 123 (26%) diet adherence outcomes favoured the intervention group, however, studies investigating behaviour change health coaching reported no improvement in diet adherence.¹⁰⁹

Supporting behaviour change

Some randomised trials and other studies report that **health coaching can support people to change a wide range of behaviours**, including increasing physical activity,^{110,111,112,113,114} improving diet,^{115,116,117,118} improving lifestyle,¹¹⁹ reducing smoking,^{120,121,122} seeing health professionals more regularly or appropriately,¹²³ communicating with professionals¹²⁴ or family members,¹²⁵ medication adherence^{126,127} and undertaking other self-care behaviours.^{128,129,130,131,132,133,134}

The fact that the results of individual studies differ from combined systematic reviews may suggest that health coaching can have an impact on behaviour change, but is not necessarily more effective than other proactive interventions to support behaviour change.

For example, in the US 30 people who had a stroke were assigned to usual care or medication health coaching via telephone after hospital discharge. The coach discussed risk factors, reviewed medications and triaged people's questions to a stroke nurse or pharmacist. Initial calls lasted half an hour, with any follow-up calls to answer questions lasting about 10 minutes if needed. At three months after discharge, the coached group were more likely to have seen their primary care provider. The researchers suggested health coaching could improve appointment-keeping with primary care.¹³⁵

Elsewhere in the US, more than 3,500 smokers who called a helpline to seek assistance quitting were assigned to receive either self-help booklets by post or booklets and up to five sessions of telephone health coaching. Health coaching nearly doubled the odds of quitting and maintaining cessation for one year, at a cost of about US\$1,300 per person.¹³⁶

In France, 1,013 children and their parents were randomly assigned to dietary health coaching monthly by telephone for eight months or a control group given no support. Children and parents receiving health coaching were more likely than controls to achieve their nutritional targets for fat intake and to a lesser extent sugar and complex carbohydrate intake.¹³⁷

In Scotland, a non-randomised comparison investigated whether group-based health coaching from peers improved breastfeeding initiation and duration. Health coaching was set up in four regions. Data were analysed for 598 women with live births in the nine months before the initiative began and 557 women during the nine-month intervention. Data from ten other regions were compared. Breastfeeding rates increased compared with baseline rates and compared to other regions.¹³⁸

However, not all findings are positive.¹³⁹ In the US, pregnant women who smoked were randomly assigned to receive structured advice from their doctor (who had received training in motivating behaviour change) and referral to individual health coaching or to receive brief advice to stop smoking and a quit smoking booklet (usual care). There were no differences between groups in smoking during pregnancy or one year after giving birth.¹⁴⁰

In Sweden, 228 people with early rheumatoid arthritis were randomly assigned to one-year of health coaching by a physical therapist or no intervention. All were regularly seen by rheumatologists and took part in rehabilitation. There was no difference between groups in the proportion undertaking healthy physical activity for 30 minutes or more each day.¹⁴¹

Some studies have found that health coaching impacts on some behaviours but not others or that the changes are not sustained once health coaching ends.^{142,143} For instance, a randomised trial in the US compared improved usual care alone versus adding six-sessions of health coaching during the three months after hospitalisation for acute coronary syndromes. Data from 525 people admitted to one of five hospitals were analysed after eight months. The health coaching group had higher self-reported physical activity during the first three months and this declined after the intervention was withdrawn. There were no differences between groups in smoking cessation, medication use, functional status or quality of life.¹⁴⁴

Impacts for carers

Research suggests that **health coaching carers** can also improve the achievement of self-selected goals.¹⁴⁵

However, not all studies with carers are universally positive. In the Netherlands, 97 parents of young adults with recent-onset schizophrenia were randomly assigned to usual care or training in motivational interviewing and interaction skills. At three-month follow-up, families in the intervention group had lower frequency and quantity of cannabis use, but there was no difference between groups regarding other substance use, general level of functioning, parental distress or sense of burden.¹⁴⁶

Types of health coaching

Studies of health coaching provided by peers or novices and those of health professional coaches have found equally favourable impacts on behaviour change, though studies generally did not compare different coaches directly.¹⁴⁷

For example, a randomised trial in China allocated 62 older people living in rural areas to usual care or health coaching from a volunteer. All participants received routine medication safety instructions about their long-term conditions. In addition, the health coaching group received reminders by trained volunteers, instructions with pictorial aids, three home visits and five telephone calls. Volunteer health coaching was associated with improved knowledge of medication safety and improved medication safety behaviours.¹⁴⁸

In the US, people who were successfully managing their diabetes were paired with people who were struggling with behaviour change associated with managing diabetes. The pairs were matched according to age, sex and physical appearance. Peer coaches initially met with participants face-to-face for one hour then talked by telephone once a week for 10 to 15 minutes for the next eight weeks. Participants reported that health coaching was personalised and useful in disease management. They reported making progress towards changing behaviour.¹⁴⁹

Most research has not directly compared whether some formats for delivering health coaching are more effective for supporting behaviour change than others. There are examples of positive findings in studies about face-to-face, telephone and online or virtual health coaching.^{150,151}

Health coaching may be useful when incorporated as part of a wider intervention.^{152,153} In England an online health coaching programme to encourage teeth brushing included role-modelling cartoons for children, a guide for parents on using rewards, a personalised plan with clear steps, tips to follow and a weekly 10-minute review of progress. Children aged five to nine years from 44 families took part in a randomised trial. Over a three-week period, children in the health coaching group brushed their teeth 38% more often than those in the control group.¹⁵⁴

Health coaching duration

Most studies do not directly compare the effect of health coaching for greater or fewer numbers of sessions. The findings of individual studies suggest that even a one-off health coaching session can be useful in some instances, though a greater number of sessions may be more likely to sustain behaviour change or embed a wider range of changes.

For example, 473 young people aged between 12 and 20 years old being treated for an injury in a US hospital emergency department were randomly assigned to no intervention or a brief session of behaviour change health coaching to reduce risky behaviours associated with the injury. At three and six months, the intervention was associated with self-reported improvements in seatbelt use and bicycle helmet use. There was no impact on other target behaviours or the risk of re-injury requiring medical attention.¹⁵⁵

In Wales, 53 GPs and practice nurses from 27 general practices were trained in behaviour change motivational interviewing-based health coaching. 1,827 patients who screened positive for at least one risky behaviour were randomly assigned to receive a one-off health coaching session or usual care. Health coaching was associated with more reported attempts to change and self-reported improvements in healthy eating at three and 12 months and improved activity at 12 months, but there were no changes in clinical outcomes. Training cost £1,597 per practice.¹⁵⁶

Impact on health status

Available evidence

The review identified six systematic reviews, 60 randomised trials and 43 other studies focused on the effects of health coaching on people's health status and clinical outcomes.

Key trends

- **There is mixed evidence about the impact of health coaching on physical outcomes** such as cholesterol, blood pressure, blood sugar control and weight loss. This may be because it takes time to demonstrate changes in clinical indicators and many studies do not include long follow-up periods or large sample sizes.
- **33% of the reviews, 37% of randomised trials and 84% of other studies suggested that health coaching may have a positive effect** on people's health status, including improving blood pressure, blood sugar control in people with diabetes, cholesterol and cardiovascular risk factors (see Table 5). Thus, the evidence about improved health status is very mixed, with similar numbers of trials finding improvements or no improvements.

Table 5: Direction of findings about health status and clinical indicators

Findings	% reviews	% trials	% other studies
Largely positive	33%	37%	84%
Largely negative	0%	38%	5%
Very mixed	67%	25%	11%
Total studies	6	60	43

Examples

Findings from systematic reviews

Six systematic reviews have examined the potential of health coaching. Three of these reviews specifically examined health coaching and the other three explored health coaching as one of many behavioural change interventions.

A review of 41 articles about 34 telephone health coaching initiatives to support people with long-term conditions found that 94% of studies reported positive outcomes from health coaching.¹⁵⁷

Another review of 30 studies about telephone health coaching for people with long-term conditions found that several studies reported improvements in health behaviour, self-efficacy and health status and satisfaction. There was less evidence about improvements in quality of life and patient satisfaction with the service.¹⁵⁸

A review of 50 studies of face-to-face communication-related behaviour change techniques provided in primary care by doctors or nurses found favourable health outcomes in 56% of studies. The most successful techniques were behavioural counselling / health coaching, motivational interviewing, education and advice.¹⁵⁹

A review of 17 randomised trials exploring broad strategies to increase physical activity in people with type 2 diabetes found that behavioural interventions were associated with increased blood sugar control. Interventions underpinned by behaviour change theories and those using a large variety of behaviour change techniques were most effective.¹⁶⁰

Another review of 17 studies about behaviour change strategies for preventing and managing childhood obesity found that the six most effective strategies were providing information about the consequences of behaviour to the individual, environmental restructuring, prompting changes in behaviour, role modelling / advocate, stress management / emotional control training and general communication skills training.¹⁶¹

These broader reviews suggest that some of the components common within health coaching have been associated with positive health outcomes for children and adults. However, a review of five studies about whether life health coaching could influence health outcomes found mixed results.¹⁶²

Impact on physical outcomes

A number of individual studies have reported improved clinical indicators^{163,164,165,166} such as better blood sugar control for people with diabetes,^{167,168,169,170,,171,172,173,174} improved blood pressure,^{175,176,177,178} reduced cholesterol,^{179,180,181,182} reduced cardiovascular or lifestyle risks,^{183,184,185} reduced pain¹⁸⁶ and weight loss or reduced body mass index.^{187,188,189,190,191,192,193,194,195,196,197,198,199,}²⁰⁰ Although some of these studies objectively measure outcomes, others rely on self-report.²⁰¹ It is also true that some of the improvements are modest.²⁰²

In the US, 56 people with diabetes were allocated to six months of health coaching (14 30-minute sessions) or usual care. Health coaching was associated with increased patient activation, perceived social support, self-reported adherence, exercise frequency and perceived health status and reduced stress. Those with poorly controlled blood sugar had improved blood sugar control.²⁰³

Another trial in the US examined whether health coaching children aged eight to 13 years reduced their second-hand smoke exposure. Two hundred and one families were assigned to eight in-home health coaching sessions or no intervention. During health coaching sessions, children were shown charts of cotinine assay results and provided with praise and incentives for reductions. At the end of the programme, health coaching was associated with a greater decrease in urine cotinine concentration and child reported exposure to cigarette smoke per day. However, this was not sustained at 12-month follow-up.²⁰⁴

Elsewhere in the US, 525 people with long-term conditions at high-risk were randomly assigned to usual care or aggressive pharmacological management plus behavioural health coaching from a nurse practitioner or community health worker. At 12 months, the intervention group had greater improvements in cholesterol, blood pressure, blood sugar control and perceptions of the quality of care.²⁰⁵

But **not all findings are positive**. Some trials and other studies have either found no evidence of improvements in health status or clinical indicators^{206,207,208,209,210,211,212,213,214,215,216,217} or mixed findings, with improvements in some things but not others.^{218,219,220,221,222,223,224}

For example, in Japan 134 people with diabetes were randomly assigned to one-to-one monthly nurse health coaching by telephone or usual care. There were no significant differences in blood sugar control, body mass index (BMI), blood pressure, cholesterol or health related quality of life.²²⁵

In Australia, 151 overweight and obese 13 to 16 year olds were randomly assigned to a community-based weight management programme alone or with additional telephone health coaching or text messages or email communication once per fortnight. The weight management programme involved young people and parents separately attending seven weekly group sessions, followed by quarterly sessions for young people. At two-year follow-up, health coaching was not associated with any additional improvements in outcomes.²²⁶

In another part of Australia, 473 people with diabetes from 59 primary care practices were randomly assigned to receive health coaching from a practice nurse or usual care. Nurses received two days of training in telephone health coaching and aimed to provide eight telephone and one face-to-face session per patient. The median number of health coaching sessions was three per person. At 18-month follow-up there was no difference between groups in blood sugar control or other outcomes.²²⁷

In Canada, 45 university students with a body mass index greater than 30 were assigned to work with a coach to achieve personal goals or to learn from a specialist who provided scripted, education-based lessons about lifestyle, exercise, attitudes, relationships and nutrition. Follow-up occurred immediately after the programme and at three and six months. Structured education was more effective than health coaching for reducing weight, but health coaching resulted in greater decreases in calorie intake. The health coaching group said that self-understanding and self-responsibility were primary outcomes of their experience whereas the education group focused on the value of the practical knowledge gained.²²⁸

Impact on quality of life

Health coaching may impact on health-related quality of life.^{229,230} In Korea, 48 women who survived breast cancer were randomly assigned to receive usual care or face-to-face education, telephone health coaching and small group meetings. The intervention was associated with better reported quality of life and emotional wellbeing and lower psychological symptom distress.²³¹

On the other hand, in the US 17 people with chronic obstructive pulmonary disease (COPD) were randomly assigned to a mobile phone health coaching intervention or a mobile phone self-monitoring intervention. All participants met with a nurse to develop an individualised exercise plan, were issued a pedometer and exercise booklet and asked to log their daily exercise and symptoms. The health coaching group also received weekly reinforcement text messages and reports of worsening symptoms were automatically flagged for follow-up. After six months, there were no differences between groups in functioning or health-related quality of life.²³² Other studies have also failed to find an improvement in quality of life following health coaching.^{233,234}

Impact on mental health outcomes

Research has found some benefits of health coaching for improving perceived mental health^{235,236} or reducing depression and anxiety,²³⁷ especially amongst people with moderate or severe symptoms initially.^{238,239}

For example, 30 cancer survivors took part in six wellness health coaching sessions in the US. During the three-month intervention, there were improvements in depression, anxiety and quality of life. The extent of improvements decreased over 12 months of follow-up, but remained higher than baseline. The perceived most helpful aspect of working with a coach was motivation and feedback.²⁴⁰

In another part of the US, 111 older people were randomly assigned motivational interviewing-based health coaching or usual care. The health coaching group chose the health behaviours they wanted to change and took part in one in-person session followed by nurse telephone calls and email contact for six months. Health coaching was associated with less illness intrusiveness and health distress at six months but it was uncertain whether these mental health outcomes resulted from behaviour changes.²⁴¹

However, not all studies exploring the impact of health coaching on mental health have found positive changes.^{242,243,244}

Impact for carers

There are also a small number of studies available about the impact of health coaching on the **health outcomes of carers**. For example, in Australia 22 relatives of colorectal cancer survivors took part in six telephone health coaching sessions and received a handbook and pedometer. A before-and-after study reported that at six weeks there were improvements in physical activity, diet, alcohol intake, body mass index, waist circumference and physical and mental health-related quality of life. Retention was 100%.²⁴⁵

In Israel, 169 parents of children with learning disabilities received either individual health coaching, group counselling or no intervention. Those receiving health coaching or group sessions had more favourable outcomes than the comparison group. Group counselling was more effective than individual health coaching for reducing stress. Bonding was the most consistent predictor of outcomes.²⁴⁶

Impact on service use and costs

Available evidence

The review identified four systematic reviews, 12 randomised trials and 10 other studies focused on the effects of health coaching on health service use and costs.

Key trends

- **There is insufficient evidence to conclude whether health coaching reduces healthcare use or costs.** Most studies are from outside the UK, making generalisation difficult.
- **25% of the reviews, 30% of randomised trials and 70% of other studies suggested that health coaching may help to reduce the use of health services or be cost-effective** (see Table 6).

Table 6: Direction of findings about service use and costs

Findings	% reviews	% trials	% other studies
Largely positive	25%	33%	70%
Largely negative	50%	67%	20%
Very mixed	25%	0%	10%
Total studies	4	12	10

Examples

Findings from systematic reviews

Systematic reviews that included health coaching alongside other behaviour change interventions suggest that there is **insufficient evidence to draw conclusions about cost-benefits** or that health coaching is not associated with cost savings. However other, more specific, systematic reviews have suggested some potential. For example, a review of 98 randomised trials of patient decision aids found that 11% included health coaching. Compared to usual care, health coaching provided alongside a decision aid improved knowledge and decreased average costs. Impacts on decision-making were variable.²⁴⁷

A review of 24 randomised trials about lay health advisors found little evidence of effectiveness regarding improving diet or exercise. Incremental cost effectiveness ratios were £6,000 for smoking cessation; £14,000 for telephone-based diabetes management, and £250,000 or more for promoting mammography attendance and HIV prevention amongst drug users. There was insufficient evidence to estimate cost-effectiveness for breastfeeding or mental health promotion.²⁴⁸

Potential cost savings

The quality of studies exploring the costs or cost-effectiveness of health coaching is widely variable, but some randomised trials are available.

For instance, 174,120 people in the US were assigned to a usual-support group or an enhanced-support group. Both groups were provided with usual care or health coaching based on whether they had high predicted medical costs. The same telephone intervention was delivered to the two groups, but more people in the enhanced-support group were eligible for health coaching due to lowering cut-off points for predicted future costs and expanding the number of qualifying health conditions. After 12 months, 10% of the enhanced-support group and 4% of the usual-support group received health coaching. Average monthly medical and pharmacy costs per person in the enhanced-support group were about 4% lower than those in the usual-support group, largely due to reduced hospital admissions. The cost of the intervention was less than US\$2 per person per month.²⁴⁹

Another randomised trial in the US examined health coaching to support shared decision making in people with back pain or joint pain. 24,167 adults were assigned to usual care or to automated voice prompts that allowed people to connect to a health coach. The automated system led to 11 times more use of health coaches. There was no difference in the rate of surgery, but a trend towards reductions in costs.²⁵⁰

Non-randomised studies have also suggested a trend towards reduced costs from health coaching.^{251,252,253}

Worksite wellness programmes

Many studies about costs focus on worksite wellness programmes or large health promotion programmes run by health maintenance organisations.

In the US, analysis of a worksite health programme that included health coaching estimated healthcare expenses per person per year to be US\$176 lower for participants. Inpatient expenses were lower by US\$182 per person. There was a return on investment of US\$1.65 for every dollar spent on the programme.²⁵⁴

Another US worksite health improvement initiative included health risk assessments, health education and health coaching. Analysis of four years' worth of data suggested improvements in smoking status, dietary fat and fibre intake, exercise, mental health, readiness to change, perceptions of overall health and health risks. There were no changes in body mass index. Return on investment, including incentive costs and fees, was 2.87:1.²⁵⁵

Another US programme for 1,282 people included consultations with wellness coaches and personal trainers, a 24-hour company fitness centre, personalised health assessments and preventive screening. People taking part reported improvements in physical activity, healthy food consumption, weight loss and blood pressure. Absenteeism decreased by approximately 25% and the overall return on the investment was calculated to be 2.43.²⁵⁶

In Lebanon, six rural employers were divided into three groups: a control group and two worksite wellness interventions with varying activities. Over a four year period, the health coaching and referral group had the greatest degree of participant engagement and greater improvement in health and wellness indicators compared to the control and lower-intensity intervention groups. However, the lower-intensity education-focused intervention had more favourable cost-effectiveness ratios.²⁵⁷

Changes in service use

A small number of studies have found reductions in healthcare service use. This is not necessarily a good indicator of the effectiveness of health coaching because by empowering people health coaching may actually increase the use of services in the short-term if people attend regular checks or seek help when they notice exacerbations. Nevertheless, some studies have found positive outcomes in this regard.

For example, in the US people aged 65 years or older admitted to hospital were assigned to receive usual care or encouragement from a 'transition coach' to take a more active role in their care and to assert their preferences. The intervention was associated with fewer readmissions at 30, 90 and 180 days.²⁵⁸ A similar study by the same research group found reduced readmission rates a 30 and 90 days, but not 180 days. At 180 days, average hospital costs were lower for the intervention group (US\$2,058 versus \$2,546).²⁵⁹

Non-randomised studies have also suggested some reductions in hospital admissions.²⁶⁰

Conflicting findings

Not all cost analyses are in favour of health coaching. For example, in the UK 2,698 people with heart failure, coronary heart disease, diabetes or chronic obstructive pulmonary disease and a history of inpatient or outpatient hospital use were invited to take part in telephone health coaching and were matched one-to-one with a comparison group. Health coaching involved monthly telephone support from a nurse and a personalised care plan over a median duration of 26 months. Emergency admissions and outpatient attendances increased more quickly among those receiving health coaching than matched controls. Health coaching was associated with an increase in secondary care costs of £175 per person.²⁶¹

Another UK study randomly assigned 208 people with ocular hypertension or glaucoma to behaviour change health coaching or usual care. There was no difference between groups in adherence to therapy or intraocular pressure reduction. The average cost per patient was £10.35, but the intervention was not cost-effective.²⁶²

In Australia, 430 adults who had suffered a heart attack were randomised to telephone health coaching or usual care for six months. At six and 12-month follow-up, there were no changes in improved health status between groups. People in the health coaching group were more likely to be admitted to hospital due to causes unrelated to cardiovascular disease. The overall cost for the health coaching group was higher (US\$10,574 versus \$8,534 usual care), mainly due to greater hospitalisation costs. The incremental cost-effectiveness ratio was US\$85,423 per QALY.²⁶³

In the Netherlands, 730 older workers were randomly assigned to exercise, health coaching and fruit or no intervention. There was no difference between groups in costs and benefits. Per point improvement, the incremental cost-effectiveness ratio was 280 Euro for general vitality and 7506 Euro for work-related vitality. 2.21 Euro was lost per Euro invested.²⁶⁴

Elsewhere in the Netherlands, people with heart failure were randomised to receive basic support by a specialist nurse, intensive health coaching support by a nurse or routine follow-up by a cardiologist. Basic nurse support was best in terms of costs per life year gained and costs per quality-adjusted life year gained. There was no difference in the incremental cost-effectiveness ratio between intensive health coaching and basic support (532,762 Euro per life-year). The researchers concluded that basic support may be useful for those with mild to moderate heart failure, with more intensive health coaching reserved for those with severe disease.²⁶⁵

Another trial in the Netherlands randomised 88 people newly prescribed an antidepressant to education and health coaching by a pharmacist or usual care. Health coaching comprised three contacts with the pharmacist, with an average duration of between 13 and 20 minutes, and a take-home video. There were no differences between groups in medication adherence, improvements in depression scores or costs. The incremental cost-effectiveness ratio associated with pharmacist health coaching was 149 Euro per 1% improvement in adherence and 2,550 Euro per point improvement in the depression average item score. The intervention was not likely to be cost-effective compared with usual care.²⁶⁶

In the US, 1,755 overweight people were randomly assigned to i) written materials and access to a basic online weight management programme, ii) materials plus an interactive website or iii) materials, interactive website and brief telephone and e-mail health coaching. All groups had weight loss, increased physical activity and reduced blood pressure which was maintained after 18-months. The cost-effectiveness ratio was US\$900 to \$1100 per quality-adjusted life year (QALY) for the basic and interactive websites and US\$1900 per QALY for health coaching. It would take three years to recover costs for the basic and interactive website and six years for the health coaching intervention.²⁶⁷

Similarly, a number of studies have found that health coaching does not impact on healthcare service use. For example, in the US 241 parents of children aged between two and ten years were randomly assigned to 18-months of health coaching or usual care. More children of coached parents had at least one asthma monitoring visit after enrolment, but the proportion with at least four monitoring visits in two years was low. There were no differences between groups in emergency department visits or admissions.²⁶⁸

A non-random comparison in the US invited people with long-term conditions who had two admissions to hospital or visits to the emergency department over the past twelve months to take part in health coaching. At two-year follow-up, there were no differences in admissions, primary care visits or healthcare costs compared to a matched group.²⁶⁹

Impact of different types of health coaching

Available evidence

The review identified four reviews, 14 randomised trials and 26 other studies describing or comparing different types of health coaching styles or formats.

Key trends

- Health coaching may take many different forms.^{270,271} **It is difficult to suggest that one form is more effective than others because studies do not tend to compare.**
- Face-to-face and telephone approaches may be more interactive than online or virtual health coaching, but it would be premature to conclude that this is associated with better outcomes. Both one-to-one and group sessions have been found to have benefits.
- Health coaching can be provided as part of routine consultations or as a standalone initiative. Most research considers health coaching as a specific initiative rather than exploring incorporating health coaching skills into usual consultations.
- One clear message is that the more health coaching sessions people take part in, the more likely they may be to change.

Examples

Delivery style

As described in the taxonomy in Part 1, health coaching can be delivered in a range of ways including in-person, by telephone, online or as part of automated tools.^{272,273,274,275,276,277,278,279,280}

People may sometimes prefer seeing a coach face-to-face²⁸¹ but there is not strong evidence that in-person health coaching is more effective than telephone calls. This may be due to a lack of studies directly comparing these approaches.

A randomised trial in the US included 415 obese people with at least one cardiovascular risk factor. One group received usual care, one group received health coaching support by telephone, a website and e-mail and the final group received the same remote support plus in-person contact during group and individual sessions. Health coaching was associated with weight loss, but there was no difference between remote or in-person approaches.²⁸²

Another US study compared combining telephone and face-to-face health coaching versus telephone health coaching alone for exercise performance in a home-based low-intensity programme for high-risk ethnically diverse older people. The combined group had better exercise performance.²⁸³

Another study found that those taking part in telephone health coaching were more likely to be retained within the programme than those taking part in face-to-face sessions.²⁸⁴

A randomised trial in the Netherlands assigned 1,386 overweight people to six-months of telephone health coaching, six-months of email health coaching or self-directed materials (control). After two years, there was no difference between groups in weight loss.²⁸⁵

In the US, seven people with COPD took part in an online meeting (webinar) to coach them in how to engage in conversations about end-of-life care with their clinicians. After three months, all participants had taken further action about end-of-life planning. Five (71%) thought webinars were acceptable option if face-to-face contact was not possible but all said that adding a video stream would have promoted more interaction. Although this intervention was labelled as health coaching, it focused mainly on education.²⁸⁶

People from specific demographic groups may prefer some styles of health coaching more than others.

In the US 6,055 people from 10 large employers self-selected into postal or telephone health coaching. Those who selected telephone health coaching were more likely to be older, female, salaried and more ready, confident and motivated to make a behaviour change compared to those in the postal programme. Both strategies helped to reduce health risk status, with the telephone approach being slightly more effective.²⁸⁷

Delivery context: individual or group

In addition to one-to-one health coaching, there are many studies about group health coaching.²⁸⁸ For instance, in Canada a randomised trial assigned 680 people at high risk or with coronary heart disease to either risk factor feedback, brief advice and handouts (control) or health coaching which involved the same advice and handouts plus six weekly one-hour teleconferenced sessions with groups of four to eight people. At six-month follow-up, group health coaching was associated with improved exercise, diet, blood pressure, cholesterol and 10-year absolute risk of cardiovascular events.²⁸⁹

Evidence about any differences in the effectiveness of individual versus group-based health coaching is lacking. Most studies have not found differences between group or individual approaches. For instance, a case-control study in Canada compared health coaching delivered in groups versus one-to-one for young people with disabilities. Health coaching improved goal attainment. There was no difference between group and one-to-one formats.²⁹⁰

However, some studies suggest that group health coaching may have additional benefits. A US trial randomised 34 women from rural areas to a behavioural weight loss health coaching programme delivered one-to-one or in a group. Group health coaching was more effective and more cost-effective.²⁹¹ A non-random comparison from Israel found that group health coaching was associated with better stress reduction in carers, largely due to being able to bond with others.²⁹² The importance of bonding was also mentioned in a Scottish study examining breastfeeding health coaching.²⁹³

Content of health coaching sessions

Most empirical studies do not describe in detail the content and topics covered within health coaching sessions, but it is possible to make some general statements. A systematic review of 284 empirical and theoretical articles examined the components of health coaching. The reviewers found that in the published peer reviewed literature, health coaching incorporates a process that is fully or partially patient-centred (86% of articles), includes patient-determined goals (71%), incorporates self-discovery and active learning processes (63%), encourages accountability for behaviours (86%), and provides education alongside health coaching (91%).²⁹⁴

There is insufficient evidence to be able to state that the inclusion of some content within health coaching sessions leads to better outcomes, but some studies suggest that **health coaching which is integrated into routine care and signposts people to other community resources is well received.**^{295,296,297} Using reflective and change-inducing questions has been found to spark conversations about change, though these may not be well-used in routine practice, even by practitioners who have been trained in health coaching or motivational skills.^{298,299}

Psychological support and building a strong trusting relationship may be an important component.^{300,301} Interviews with 32 people who took part in health coaching in the US reported that health coaching involved a caring relationship, leading to greater patient investment in making changes.³⁰² Other interviews in Norway found that if people had a good relationship with their GP, this created motivation to change and meant health coaching was interpreted as 'good care.'³⁰³

A randomised trial in the US examined whether sequential stage of change-based health coaching to stop smoking, reduce dietary sodium level and increase physical activity would be more effective than simultaneous counselling in primary care. Two hundred and thirty African Americans with hypertension were assigned to one in-clinic health coaching session on all three behaviours every six months, supplemented by motivational interviewing by telephone for 18 months; or a similar protocol that addressed a new behaviour every six months; or a single referral to existing group classes (usual care). At 18 months, there were no differences between groups.³⁰⁴

Duration of health coaching

As with other aspects of health coaching there is little comparative evidence about the benefits of greater or fewer numbers of health coaching sessions.

In one of the only randomised trials available about this topic, 50 people in the US were allocated to receive nutrition health coaching about eating behaviours at baseline only (control group) or an additional eight times over a six-month period. Multiple health coaching contacts were associated with a 31% decrease in the intake of energy, fat and carbohydrate compared to 20% in the control group. Multiple health coaching sessions were associated with weight loss but one-off health coaching was not.³⁰⁵

Some non-randomised studies also suggest that the more health coaching sessions people take part in, the more likely they are to achieve their goals or improve health outcomes.^{306,307,308,309}

Combining with other interventions

Some research suggests that health coaching may be feasible and effective when combined with other support.³¹⁰

For example, in Belgium a 15-minute self-efficacy health coaching session was added to the start of a 12-week physical activity programme. The researchers randomly assigned 227 people to the usual programme or to additional self-efficacy health coaching. After the physical activity programme both groups had improved fitness and reduced body mass index. The change was more marked in those who took part in health coaching.³¹¹

A randomised trial in the US assigned 320 young people with type 1 diabetes transitioning to adolescence to one of two online interventions: a coping skills health coaching programme or diabetes education. Neither intervention improved blood sugar control. Young people were invited to cross over and try the other intervention after one year. After 18 months, youth who completed both interventions had better blood sugar control, quality of life and self-efficacy and lower perceived stress compared with those who completed only one programme.³¹²

Another randomised trial in the US assigned 120 overweight or obese adults to one of four groups: a weight-loss supplement alone, a placebo, health coaching alone or the supplement plus 11 30-minute health coaching sessions for 17 weeks. The initial health coaching conversation lasted 60 to 90 minutes. The combined intervention was associated with greater reductions in weight than the supplement, health coaching or usual care alone.³¹³

A before-and-after study in the US analysed data from 12,984 people taking part in a worksite health programme. The programme comprised a posted health risk assessment and a free nurse helpline. A pilot sub-programme added screening, resources, and for high risk participants, health coaching and vouchers for medical office visits. Those eligible for health coaching and vouchers had a greater reduction in health risks.³¹⁴

Part 3:
Who benefits most?

Who benefits from health coaching?

Available evidence

The review identified one systematic review, nine randomised trials and 23 other studies focused on the participants in health coaching relationships (patients). Most of the other studies included in the review also included details about participants but these studies were particularly focused on participant characteristics or whether health coaching may be more effective for some groups than others.

Key trends

Studies have found that health coaching can be effective in younger and older people, in men and women and in people from a wide range of ethnic groups.³¹⁵ There is no evidence that health coaching is more effective for people with some conditions than others.

Studies tend to undertake post-hoc analyses to explore whether health coaching is more effective for some groups than others. These analyses may be based on small samples with other methodological weaknesses, so the findings should be treated with caution. However, the overall trends are that health coaching has been found to work best for:

- people with low levels of self-efficacy prior to health coaching^{316,317}
- people with high readiness / motivation to change^{318,319,320,321,322,323}
- people at highest risk^{324,325}
- people with the most severe symptoms^{326,327}
- people with low levels of self-management or medication adherence³²⁸
- women^{329,330,331}
- young people (for telephone or virtual health coaching)³³² or much older people³³³
- minority ethnic groups³³⁴
- vulnerable groups³³⁵
- people with the lowest levels of education³³⁶

Examples

People most in need of change

Many studies have identified that **the people who appear to benefit most from health coaching are those who have the most to improve**, such as the greatest amount of weight to lose, the most severe symptoms or the most poorly controlled conditions.³³⁷ For example, a random trial in Sweden assigned 228 people with rheumatoid arthritis to usual care or one year of health coaching to support increased physical activity. Health coaching was most effective for those who were more severely affected by their disease at the outset.³³⁸

An analysis of data about 6,129 people enrolled in a US health coaching programme found that people who made positive changes as a result of health coaching had the highest body mass index, lowest levels of exercise and the poorest overall health at baseline. These people were also most likely to continue with health coaching through to 12 months, whereas there was an overall attrition rate of 36%.³³⁹

Despite people most in need of change sometimes benefitting the most from health coaching, some research suggests that these people may not always be targeted for health coaching or that clinicians may not use health coaching skills with them in routine consultations.³⁴⁰

Demographics

Although some studies suggest that women and people from minority ethnic groups may be more likely to take part in health coaching if it is offered to them, these findings do need to be treated with caution because they are based on retrospective analyses.

For instance, a primary care clinic in the US ran nurse-facilitated group health coaching sessions to support behaviour change. The sessions included education plus an opportunity for brief one-to-one health coaching with motivational interviewing. An average of 13 people attended each session. Those from minority ethnic groups were more likely to attend and more likely to achieve their goals.³⁴¹

Another US study examined the demographic and clinical characteristics of adults who accessed self-help health coaching online for binge eating. Data from 4,051 men and women who registered for the programme over a 13-month period were analysed. Women were more likely to use the initiative. Most participants reported binge eating below the frequency required for a clinical diagnosis, but reported high motivation to overcome their eating binges. Few had received prior treatment for an eating disorder. The researchers concluded that digital health coaching may be useful for individuals who might otherwise not seek or receive treatment.³⁴²

A survey of 34,291 employees from 52 US companies providing worksite health programmes examined factors influencing participation in health coaching. People were more likely to enrol in health coaching if they were older, female and in poorer health. Programme completion was greater amongst those who were older, did not use tobacco and worked at a company with strong communications.³⁴³

In Australia, an automated online health coaching programme was set up to support smoking cessation. The initiative was designed to be used repeatedly over time, guiding the user through the process of smoking cessation in the manner of a 'life coach.' Email reminders were sent to prompt repeated use. Over a four-year period, 28,247 people completed an initial assessment and 84% registered. 62% of users were women and the median age was 34 years. 37% were people who had recently begun smoking again following a quit attempt. 27% of those who registered returned for a second visit, a median of nine days after their first visit. 11% completed a third visit. Women and older smokers were more likely to stay engaged.³⁴⁴

Another Australian study described how 4,828 people from the general population were offered six months of health coaching or detailed self-help information. Those using the health coaching service were representative of the adult population regarding education, employment status, fruit and vegetable consumption and alcohol use. Proportionately more female, middle-aged, English-speaking, rural and socially disadvantaged adults took part. Participants were more likely to be overweight and ex-smokers than the general population.³⁴⁵

Stage of change

Studies of the potential barriers to making change within health coaching relationships or the reasons why people do not complete health coaching programmes suggest that health coaching may be most acceptable to those who are motivated to change their behaviour or lifestyle.^{346,347} In other words, **health coaching may work best when people have already decided that they want to do something differently** and health coaching provides a tool to help them achieve this.

There is some evidence that professionals using health coaching skills within routine consultations adapt the techniques according to people's stage of change, but some research suggests that health coaching skills are most commonly applied with people in the 'preparation' stage.³⁴⁸

The overall message from empirical evidence might be that health coaching needs to be targeted towards those ready and wanting to make a change, regardless of their demographic background. People who have the most severe symptoms or who smoke or are overweight and want to do something about this might be good candidates. Whilst women may be easier to engage, health coaching has also been found to work well for men so there may be a need to target messages about health coaching appropriately for a male audience. Media advertising has been found to have some success in promoting health coaching, particular among men, those of working age and lower socio-economic groups.^{349,350}

Targeting less advantaged groups

Available evidence

The review identified two randomised trials and six other studies focused on targeting health coaching to less advantaged groups. Other studies included in the review may also have included a diverse range of participants, but these studies were particularly focused on the applicability of health coaching to specific groups.

Key trends

- As outlined in the previous section, people from minority ethnic groups and those from lower socio-economic groups may be more likely to participate in and continue to engage with health coaching if offered an opportunity to do so. Therefore there are questions about whether special targeting is really needed, or whether instead it is important to focus on making health coaching available to a wide range of groups.
- Research has not explored the best ways to increase the uptake of health coaching amongst specific groups. Studies of financial incentives for a broad range of people suggest that incentives can encourage people to take part in standalone health coaching programmes, but this is not specific to vulnerable groups.³⁵¹

Examples

Supporting minority ethnic groups

Most studies do not specifically target minority ethnic groups, but there are some favourable findings. For example, in the US 67 people with cancer and moderate pain, including 15 people from minority ethnic groups, were assigned to standardised information about controlling pain (control group) or a 20-minute individualised education and health coaching session to increase knowledge of pain self-management and rehearse an individually scripted conversation with clinicians about pain control. At enrolment, people from minority ethnic groups reported more pain than others. At two-week follow-up, people from minority ethnic groups in the control group continued to have more pain but those in the intervention group did not.³⁵²

In another US study, 1,051 South Asian people took part in health coaching for one year. Culturally specific health coaching was found to be appealing and feasible for reducing cardiovascular disease risk. There was low attrition.³⁵³

Elsewhere in the US, a non-random study compared a 27-week automated telephone diabetes self-management support / health coaching initiative for low income people from diverse ethnic groups versus waitlist controls. At six months, the health coaching group had greater improvements in diabetes self-care behaviours and perceived physical wellbeing. There were no differences between groups in perceived patient-centred processes of care or cardio metabolic outcomes.³⁵⁴

But not all findings are favourable. A randomised trial with 201 low income and largely minority ethnic group people with poorly controlled diabetes compared a 24-minute video and workbook about behaviour change and five sessions of health coaching versus a 20-page educational booklet. There were no differences between groups in blood sugar control, blood pressure, cholesterol, diabetes knowledge or self-care behaviours. The researchers concluded that a larger number of sessions may be needed for less advantaged people.³⁵⁵

A non-randomised comparison in the US explored outcomes from five Chinese-American medical assistants who took part in five one-hour health coaching training sessions and then worked with Chinese-American patients. Ninety-two people with diabetes were assigned to receive health coaching or usual care. At six months, there was no difference in blood sugar control.³⁵⁶

Supporting other vulnerable groups

A small number of studies have explored targeting health coaching towards other particularly vulnerable groups.³⁵⁷

In the US, four homeless, two formerly homeless and six low-income people with long-term conditions took part in 12-weeks of free face-to-face health coaching, which would usually be paid for. Health coaching was found to help motivate people and be modestly useful for breaking through social isolation and loneliness. It helped people develop capacity for accomplishing short-term self-identified goals and provided an opportunity for people to become more active in initiating contact with health services.³⁵⁸

In Oman, 98 largely illiterate people with diabetes were provided with dietary and lifestyle health coaching. After three years, there were improvements in blood sugar control and cholesterol. Improvements in weight and body mass index were seen in women only.³⁵⁹

These studies suggest that health coaching can be as effective for particularly vulnerable groups as for others, but do not provide insights into the best ways to target health coaching to reach such groups.

Part 4:

Who makes the best
health coaches?

Types of health coaches

Available evidence

The review identified two systematic reviews, six randomised trials and nine other studies exploring the role of different professionals or peers in facilitating health coaching. Other studies in the review included information about the type of professionals applying health coaching skills, but these studies were particularly focused on assessing how certain professionals could use health coaching or comparing different coaches.

Key trends

- There is research about nurses, doctors, pharmacists and allied health professionals providing health coaching. Health coaching provided by peers and laypeople has also been researched. Studies do not tend to compare one type of coach with another so it is not possible to say that certain professionals are more likely to engage with or be effective at using health coaching skills.
- Although professionals sometimes express doubts about the feasibility of using health coaching skills within routine practice or their ability to motivate people towards behaviour change,³⁶⁰ there is evidence that a wide range of professionals and peers can successfully apply health coaching skills.

Examples

Peers

In recent years, there has been an increasing focus on testing whether peers (people with similar conditions) can feasibly provide health coaching.³⁶¹ A number of studies have found favourable results.³⁶² For instance, in the US 23 people with diabetes who completed 36 hours of health coaching training acted as peer coaches. 299 patients with low incomes were randomly assigned to peer health coaching or usual care. At six months, peer health coaching was associated with a greater improvement in blood sugar control.³⁶³

A focus group and 17 interviews with community-based peer coaches supporting people with diabetes in the US found that peer coaches played three roles: advisor, supporter and role model. Peer coaches had varying styles and approaches to setting emotional boundaries and allocating responsibility for implementing health behaviour changes, but all felt they were more empowered themselves to better manage their own diabetes as a result of facilitating health coaching.³⁶⁴

Another US study explored which characteristics of peer coaches were most associated with improvement in diabetes control among low-income people. Twenty people provided peer health coaching to 109 patients over a six-month period. Patient improvement in blood sugar control was associated with having a coach with a lower sense of self-efficacy in diabetes management, higher level of diabetes-related distress and lower depression score. In other words, peer coaches do not need to be the most knowledgeable, confident or well.³⁶⁵

This is supported by a randomised trial comparing professional and different types of peer group health coaching in the US. Forty-four people were assigned to weight loss support plus either a professional or peer coach. Peer coaches were either people in the same situation (termed peers) or those who had successfully lost weight (termed mentors). Groups met weekly for six weeks, then biweekly for six weeks and monthly thereafter, for a total of 12 meetings. Between meetings participants emailed weight loss information to their coach and received feedback. Retention was 95%. Professional and peer coaches were associated with greater weight loss than mentors.³⁶⁶

Nurses and doctors

Many studies of health coaching involve nurses. A systematic review of 50 studies of various behaviour change support strategies in primary care found that nurses and doctors were equally capable of facilitating such initiatives.³⁶⁷

There are many examples of GPs or hospital doctors providing health coaching,³⁶⁸ and some studies suggest it is useful when doctors work alongside nurses.³⁶⁹

Allied health professionals

A wide variety of allied professionals have been trained as health coaches, including pharmacists, physical therapists, dieticians and occupational therapists.³⁷⁰

A randomised trial in Australia examined whether dieticians or nurses who did not prescribe medications could coach patients with coronary heart disease to work with their doctors to achieve target levels for total cholesterol and other risk factors. 792 patients from six hospitals were assigned usual care or health coaching via telephone and mailings. At six months, health coaching was associated with improvements in total cholesterol and quality of life compared to usual care.³⁷¹

Focus groups in the US examined whether doctors accepted non-clinicians trained as health coaches for people with high blood pressure. Doctors supported the delegation of functions to health coaches. They liked the high frequency of interactions between coaches and patients and thought that health coaching could improve medication adherence. They believed that good communication between coaches and clinicians was important.³⁷²

Teams

Ensuring whole teams have health coaching skills has been found useful. In Wales, 26 hospital paediatric diabetes teams were randomly assigned to be trained in health coaching-style consultation skills or not. Recording and analysis of consultations found that trained staff were more capable than controls in guiding and agenda setting, though skills waned over time. Training had no effect on patients' blood sugar control.³⁷³

Training coaches

Available evidence

The review identified one randomised trial and 12 other studies focused on training professionals or peers to use health coaching skills. Other studies sometimes also mentioned the training undertaken, but these studies had a special emphasis on training.

Key trends

- There is insufficient evidence to draw conclusions about the most effective ways of training professionals or peers in health coaching skills. Some studies suggest that **active role plays and observation can work well** rather than solely theoretical content. Well evaluated training usually lasts at least two to five days and includes follow-up support.
- Time, commitment and motivation may be key things needed by coaches.³⁷⁴ Empirical studies were not identified comparing specific health coaching competencies.
- There is some research to suggest that the context in which health coaching is implemented is important. In other words, **professionals need to be supported to provide health coaching practically and emotionally and there needs to be a receptive organisational context.**^{375,376}

Examples

Satisfaction with training

Training in health coaching is often well-received by professionals and usually results in an increase in knowledge or health coaching skills, at least in the short term.^{377,378}

An online survey with 150 professionals that took part in health coaching skills development programmes in the UK found that clinicians thought that health coaching skills were highly relevant and that health coaching could help clinicians with improved problem-solving and interpersonal skills. They also thought that health coaching could improve patient motivation, readiness to change and self-management.³⁷⁹

In a random trial in the US, first-year medical students acted as health coaches for people with diabetes, offering at least six sessions per patient over a year-long period. Students attended eight 90-minute small group teaching sessions about communication and behavioural change planning. Initially some students complained about increased workloads compared with those completing traditional education or had reservations about their ability to support patients, but these complaints diminished as students worked with patients.³⁸⁰

Not all training is well received, however. In Wales, interviews with 27 exercise professionals, 10 area coordinators and a trainer in motivational interviewing examined the value of a two-day workshop for delivering motivational interviewing-based health coaching within an exercise referral programme. Most saw a potential role for motivational interviewing skills but some said it was difficult to incorporate this into routine practice, especially given the need for structured data gathering activities. There were no overall improvements in practice observed.³⁸¹

Training approach

There are a number of descriptive studies outlining the broad approach to training professionals in health coaching skills, but these are not sufficiently detailed to extract information about the competencies suggested for coaches or the content of training programmes.

In the UK, 14 GP trainees were invited to attend a health coaching skills training course spanning five day-long sessions. Each trainee was asked to apply health coaching skills to up to four people with long-term conditions over a one to two-month period. The study found that it is feasible and useful to train GPs in health coaching. Health coaching had self-reported benefits for GP trainees and their patients. Training of at least two days for GPs was suggested, with opportunities for follow-up and observed practice.³⁸²

A US study described training peers to provide telephone behavioural change health coaching using motivational interviewing. Fifty-six volunteers were trained using a dvd followed with two or three booster sessions. 89% of participants reported learning about peer counselling and 87% reported learning communication skills. There was a small improvement in self-efficacy in motivational interviewing skills.³⁸³

Elsewhere in the US, a lay health coach provided follow-up support via face-to-face visits, e-mail, telephone contacts, or a combination thereof every two to four weeks for up to six months for obese people in primary care. The initial four-week training programme for the health coach consisted of review of videotapes, reading assignments, a self-change project and practising with two patients. Half (48%) of the 92 patients initiated a behaviour change in eating habits, physical activity or both.³⁸⁴

Building in refresher sessions may be useful.³⁸⁵ In South Africa, 39 lay counsellors took part in 35 hours of training in motivational interviewing-based health coaching to help people adhere to antiretroviral treatment. The laypeople struggled to achieve proficiency so 18 hours of refresher training and one year of supervision were implemented. Audio-recordings of 22 counselling sessions were analysed. Refresher training and supervision was associated with some improvement in behaviour change skills.³⁸⁶

Training content

A study in the UK examined the essential competencies (attitudes, knowledge and skills) needed to train a diabetes team in behaviour change counselling and appropriate training methods. Interviews with staff suggested that training should cover the Stages of Change model, motivational interviewing and behavioural change techniques. Acquiring the competencies was more difficult than anticipated, though most competencies were achieved after one year of training. Individual supervision and video examples were the most valued training methods.³⁸⁷

A number of studies have suggested that role-playing with observation may be a useful component of the content of health coaching training.³⁸⁸

Involving professionals in translating theory to practice may also have benefits. A cohort study in the US described how nurses used health coaching skills during home visits to support behaviour change in low-income mothers. The researchers suggested that a success factor was orientating nurses to self-efficacy theories and involving them in developing programme materials to translate theoretical concepts into nursing interventions.³⁸⁹

Studies about training in behaviour change skills

As the empirical evidence about training in health coaching is sparse, the review also considered trends in additional studies about more general training to support behaviour change. This included studies about training in motivational interviewing and in behaviour change counselling.

The review did not seek to include an exhaustive range of studies of this nature, but rather to draw out key trends in readily available literature. Five systematic reviews, 13 randomised trials and 49 other studies were included.

Studies have examined the extent to which behaviour change support is provided in routine care and concluded this is often lacking. This may be due a wide range of barriers, including a lack of knowledge, confidence and support.^{390,391,392} For instance, a UK study interviewed 33 nurses, doctors, allied health professionals and clinical support staff from inpatient and outpatient departments at a children's hospital about their attitudes and beliefs towards supporting lifestyle behaviour change. Professionals identified a range of barriers, including constraints associated with the hospital environment, the perceived inappropriateness of providing advice given the patient's condition, job role priorities and perceived limits of the advice given. Providing lifestyle behaviour change support was often seen as an educational activity, rather than a behaviour change activity.³⁹³ Studies such as this suggest that professionals may need further support and training to successfully provide behaviour change counselling and motivational interviewing. A number of studies have explored the most appropriate and useful forms for such training.

Professional participants

Training in behaviour change skills has taken place with doctors, nurses and allied health professionals working in hospital, in primary care and in other community settings.^{394,395,396,397,398,399} Teachers, dentists and pharmacists have also been trained to support health-related behaviour change,^{400,401,402,403} as have peers.^{404,405}

A systematic review of ten studies about motivational interviewing training for GPs found that the average length of the training was nine hours. Common elements included basic motivational interviewing skills, the motivational interviewing mind-set or spirit, recognising and reinforcing change talk and addressing resistance. Most studies included follow-up sessions. The training was generally associated with improvements in skills.⁴⁰⁶

Training may not be equally effective for all professionals. Just as health coaching may be most effective for people who are motivated and ready to change, so too may training in behaviour change skills be most worthwhile for practitioners who have an appropriate mind-set.⁴⁰⁷

Short workshops

Several studies have described short workshops to provide professionals with basic skills in behaviour change techniques such as motivational interviewing.⁴⁰⁸ For example, a UK hospital evaluated a four-hour workshop in motivational interviewing for cystic fibrosis teams, followed six months later by a workshop on applying motivational interviewing during brief consultations. Feedback from interviews and surveys with 50 health professionals suggested that all participants had used motivational interviewing skills after taking part in the training and rated their skills as 'moderate.'⁴⁰⁹

In Canada, ten dieticians, pharmacists, nurses and social workers took part in a one-day workshop about motivational interviewing. Interviews conducted prior to and at one and four weeks after training found that initially professionals had low confidence in their motivational skills and thought that this approach would be 'hard work.' After the training, professionals reported feeling more inspired and confident. They said they were focusing more on partnering with patients and less on giving advice.⁴¹⁰

Workshops as short as two hours in duration have been associated with improvements in motivational interviewing and behaviour change knowledge and skills, though most workshops evaluated are half or full days.^{411,412,413,414,415,416}

Single short workshops or a series of short workshops have been associated with clearer communication, decreased use of closed-ended questions, increased use of reflections, increased use of open-ended questions and increased use of motivational interviewing techniques.⁴¹⁷

A meta-analysis of the effect of motivational interviewing training included 15 studies with 715 clinicians. Training was associated with medium effects on behaviour, though the reviewers emphasised that this might be due to publication bias whereby studies with positive findings are more likely to be reported.⁴¹⁸

Sometimes a short workshop is followed by one or two refresher sessions or telephone calls, and this has been found to work well.^{419,420}

However, a study in Sweden suggested that short training may not help practitioners improve their competence. Thirty-six nurses took part in a three-and-a-half day workshop in motivational interviewing followed by four sessions of supervision and observation. Participants did not reach proficiency.⁴²¹ This is supported by other studies that suggest that short workshops may not help professionals achieve objectively assessed proficiency in behaviour change skills.^{422,423,424}

Longer courses

Many slightly longer courses in behaviour change techniques are undertaken as part of the training of medical, nursing or allied health professional trainees.^{425,426,427,428,429,430} These longer courses tend to be associated with improved confidence and skills amongst professionals.⁴³¹

A systematic review of 109 behaviour change counselling courses for medical students found that most studies came from the US (90%) and took place in primary care settings (74%). Curricular topics included techniques to support smoking cessation (61% of studies), nutrition (28%), reduced alcohol or drug use (24%) and exercise (20%). Most studies did not include theoretical frameworks, but one third used the Transtheoretical Stage of Change model (36%). Half of the studies involved eight or fewer hours of curricular time (56%) and spanned four or fewer weeks (47%). Training that employed multiple techniques and included practice in either simulated or actual clinical settings had the best outcomes.⁴³²

Whilst most studies find some improvement in (often self-reported) knowledge and skills immediately after training, this may not always be sustained. A randomised trial in the Netherlands found that primary care nurses who took part in workshops about motivational interviewing had no better skills one year later than nurses who had not taken part.⁴³³

Role play

Practice and rehearsal is often beneficial in helping professionals to acquire communication skills. Some studies have explored the best ways to do this to support motivational interviewing skills.⁴³⁴ Role plays have emerged as an important component of many programmes.^{435,436}

In the US, following a lecture about motivational interviewing, first-year pharmacy students were randomised to practice using written dialogue, peer role-play or mock-patient counselling activities. Those taking part in simulated patient encounters demonstrated better motivational interviewing skills and knowledge.⁴³⁷

But some studies suggest that role plays with others taking part in training programmes may be just as effective as role plays with simulated patients.⁴³⁸ For example, health professionals from Wales who attended a two-day workshop in motivational interviewing were randomly assigned to conduct practice sessions with either a simulated patient or a another trainee during the training. Their competence was assessed before and after training using a validated scale. There was no difference in skill levels between groups following training.⁴³⁹

Observation

Researchers from The Netherlands examined the effects of filming and providing feedback on the communication skills and motivational interviewing skills of experienced practice nurses working in primary care. Consultations between 17 nurses and 325 patients were filmed at two time-points, three to six months apart. Nurses were randomly assigned to receive feedback about their videos or not. The group who received feedback later communicated more clearly and paid more attention to the agenda setting and permission seeking aspects of motivational interviewing during their consultations. The researchers concluded that videoing and providing feedback may be an important component of training in motivational interviewing skills.⁴⁴⁰

Online resources

Online modules have been tested to train professionals to support behaviour change,⁴⁴¹ but these omit the crucial role of practice and feedback. In the US, five three-hour long live video workshops about motivational interviewing were delivered a month apart. The video signal was transmitted through telephone lines to staff at substance abuse treatment organisations. The first workshop had the largest participation rates. Some participants were frustrated by interrupted audio or video signals. Handouts and videotaped examples of motivational interviewing were thought to be helpful aspects of the training. There were self-reported improvements in knowledge and skills, however audiotapes of actual counselling sessions suggested only minimal improvement in skills.⁴⁴²

To mitigate the lack of feedback, blended styles of learning have been tested whereby online materials are used alongside group gatherings or structured practice sessions.^{443,444}

In the US, primary care staff were trained in motivational interviewing using a half-day in-person workshop followed by an hour-long virtual training session followed by another workshop. Training improved knowledge and confidence, but there were no impacts on perceived comfort level and skill in lifestyle counselling or job-related burnout.⁴⁴⁵

'Virtual worlds' have also been tested as a way to give professionals an opportunity to practice their behaviour change skills.⁴⁴⁶

Follow-up sessions

Providing some form of supervision, monitoring or follow-up training may help professionals to maintain and apply their behaviour change skills after training ends.^{447,448,449,450,451,452,453}

A meta-analysis of 21 studies about training in motivational interviewing examined ways to sustain people's skills after training finished. Training was initially associated with improved skills, but programmes that did not include feedback or ongoing supervision or support reported that skills eroded over a six-month period. Having three to four feedback or supervision sessions during the six months following training helped to sustain skills.⁴⁵⁴

Supervision via teleconferencing has been found to be feasible.^{455,456}

A randomised trial in the UK assessed whether a workplace-based educational intervention helped 54 professionals who had trained in motivational interviewing become more competent in these skills. One group took part in an update day about motivational interviewing (control), another group took part in the update day plus received 12 weekly worksheets to stimulate reflection on their practice of motivational interviewing, feedback about audiotaped sessions with patients and three 30-minute sessions of telephone support. The group receiving ongoing support had greater increases in competence.⁴⁵⁷

To summarise, due to a lack of comparative research, it is not possible to say that a certain approach to training in behavioural change skills is more effective than others. However **training that includes observation, role play and other practical activities seems to be associated with positive outcomes.** Shorter and longer courses have both been tested, but their relative effectiveness has not been documented.

Researchers from the US tested three strategies for training clinicians in motivational interviewing: self-study, expert-led workshops and train-the-trainer workshops. The workshop groups also took part in three monthly supervision sessions. The number of clinicians meeting motivational interviewing performance standards was measured at 12-week follow-up. The study found that self-study was likely to be the most cost-effective training strategy if the threshold value is less than about US\$2870 per person meeting the criteria. Expert-led workshops were likely to be most cost-effective when the threshold value is greater than about US\$2870.⁴⁵⁸

Part 5: Moving forward

Implications for policy and practice

This review of research about health coaching is one of many tools that commissioners can use when considering whether health coaching is effective, for whom and how it could be offered in the NHS. Used alongside local evaluations and expertise about the local context and priorities, the empirical evidence suggests some implications for policy and practice.

Should health coaching be rolled out?

- **There is evidence to suggest that health coaching has potential, but it cannot be assumed to be a panacea** for all the challenges facing the NHS. Health coaching has been associated with improvements in self-efficacy and behaviour change, suggesting that this approach can help people to feel more motivated and empowered to make healthy lifestyle changes.
- **The impacts on health outcomes are more mixed**, possibly because many studies may be too small to show a difference or too short to capture any changes over time. There is some positive evidence about the potential of health coaching for improving clinical outcomes in people with diabetes, high blood pressure, high cholesterol and high risks of heart attack or stroke.
- There is very little evidence about the impact of health coaching on health service use or resource use. Whilst there are some positive studies, **it would be inappropriate to use these to suggest that health coaching has a definite return on investment.** Most of the positive studies are small or methodologically weak, and draw on data from health systems that are very different from the UK.
- A number of studies have found that health coaching is not cost-effective or does not reduce the use of healthcare resources. These too need to be treated with caution because they may have been of insufficient duration to show an impact. Changes to behaviour made as a result of health coaching may take a while to impact on physical outcomes and health service use.
- **The overall message from the evidence base is that there are many benefits likely associated with health coaching, but in order to be effective health coaching may need to be implemented as part of a wider programme supporting education and behaviour change.**

When does health coaching work best?

- There is less evidence about where, how and for whom health coaching is most effective. The evidence base is not strong enough to conclude that face-to-face health coaching is more effective than telephone health coaching, for example, or that individual health coaching is more effective than group health coaching. This is due to a lack of studies comparing different approaches.
- Similarly, it is difficult to generalise about who health coaching may be most effective for. Studies that find benefits from health coaching often suggest that the benefits are most marked for people who are motivated to change from the outset and those who have the most severe symptoms or exacerbations. Women have been found in some studies to be more amenable to health coaching than men, but other studies have found that men can benefit equally.
- There is no evidence to suggest that health coaching is most effective for people with certain conditions.
- Few studies have explored strategies to ensure that health coaching is well targeted for the most vulnerable groups, though research has found that health coaching can work well for people from minority ethnic groups, lower socio-economic groups and the homeless.

How should coaches be trained?

- Nurses, doctors, pharmacists and physical therapists are the most commonly researched health coaches. There is also evidence emerging about the role of people with long-term conditions themselves acting as coaches for others.
- The evidence base is insufficient to conclude that one type of professional or peer is more effective than others in applying health coaching skills. There are few studies that compare one type of coach with another, but the findings of individual studies suggest that **health coaching skills can be applied by a wide range of professionals, either in routine practice or as part of bespoke health coaching consultations.**
- Almost all of the studies included in the review state that the professionals facilitating health coaching have received specialised training, however the details of this training are sparse. Very few studies explicitly examine the training offered to health coaches. The studies that do exist suggest that the most effective training may be at least two to five days in duration, incorporate observation, practical activities and role plays and allow for follow-up and refresher training.

Adding to the evidence base

- This review suggests that health coaching has potential for the NHS, but there are gaps in knowledge about how best to train coaches and the longer-term impacts of health coaching, particularly on service use and costs. Box 2 lists caveats with the evidence available.
- As teams within the NHS consider rolling out health coaching, it may be important to also consider more robust evaluation that compares health coaching with other options and compares different types of health coaching. Analysis of the costs and cost-effectiveness of health coaching should be built into any evaluation.
- There is an opportunity for NHS teams to contribute significantly to knowledge in this area, potentially making an empowering and worthwhile form of support available to a wide range of people.

All of the implications listed in this section are important for both national audiences as well as the East of England when considering how, when and who health coaching may work best for, how to select and train people as health coaches and gaps in current knowledge.

To summarise, Box 1 lists some of the key implications of the empirical evidence for the East of England programme.

Box 1: Implications for East of England

- There is evidence to support the East of England's testing of health coaching, but this initiative should be seen as one component of wider programmes to support self-management rather than a standalone entity.
- The East of England model of having at least two days' worth of training follows good practice. There may be scope to continue to refine the model. For example, refresher or follow-up sessions may be beneficial for participants.
- There may be a need to build in content about how to use health coaching effectively in routine practice. Most of the evidence available is about standalone coaching initiatives.
- More guidance may be needed about how to select professionals to take part in training and how to select patients that health coaching may be most effective with. A more targeted approach may be useful.
- Evaluation needs to focus on clinical and cost outcomes, rather than solely impacts on professionals' skills. Given the extent of investment in the programme, a robust evaluation strategy is needed.
- There is scope to share the lessons learned widely, both in terms of the story so far and the evidence base. Given the paucity of evidence, it may be useful to publish key trends from the evidence review as a journal article.

Box 2: Caveats with the evidence

1. Variation in interventions

There are some issues that readers should keep in mind when interpreting studies about health coaching.

There has been no clear definition of what comprises health coaching and studies have used this or similar terms to represent widely varying interventions. Health coaching can take a variety of forms so it is difficult to say that health coaching as a concept works because some interventions may be several months long and some might be one-off, some might be delivered by peers and others by professionals, some might be telephone-based and others delivered face to face, and so on. The role that coaches take and the competencies they have can also vary markedly. In short, it is difficult to compare studies because the interventions included are vastly different, much like comparing apples and pears.

This means that where studies have found that health coaching does not work, it is important to consider the exact health coaching methods, providers, duration and frequency used rather than assuming the concept as a whole may be flawed.

2. Variations in quality of evidence

Furthermore, the quality of the evidence varies widely. The review has weighted the quality of evidence based on study design, whereby randomised trials and systematic reviews are potentially more robust than other studies. Many of the studies that have found positive outcomes from health coaching are not systematic reviews or randomised trials.

3. Lack of comparative evidence

Most studies do not compare health coaching with other alternatives. This means that even where studies suggest that health coaching has improved attitudes or behaviours over time, it is not possible to say whether health coaching has done this more quickly or effectively than usual care or other types of support.

Furthermore, there is little evidence about the cost-effectiveness of health coaching. Thus studies may have found positive benefits, but they do not explore at what cost or the opportunity costs involved.

4. Generalisability issues

Much of the evidence available about health coaching comes from the US, where health systems, attitudes, commissioning and payments are very different from the UK. Whilst studies from other countries can provide useful insights into potential trends, it is usually not possible to transfer interventions from one health ecosystem to another without adaptation.

Importantly, most of the evidence relates to health coaching set up as a separate intervention rather than used within routine practice, such as GP consultations so it may be difficult to extrapolate the findings to the effects of using health coaching within routine practice. It remains unclear whether health coaching from a clinician with an established relationship has greater benefits.

These caveats emphasise the importance of East of England evaluating its programme robustly and adding to the evidence base.

Annex and references

Annex 1:

Identifying evidence

This annex describes the approach used to identify evidence for inclusion in the review.

Inclusion and exclusion criteria

The review was completed over a three-week period. It included readily available empirical published and grey literature from the UK and other countries.

To be eligible for inclusion in the review, material had to:

- be empirical research of any methodological design;
- be published in a print or online journal or available via the grey literature;
- include information about outcomes from health coaching or factors influencing effectiveness;
- and be published in the English language.

Only studies that stated the intervention was 'health coaching' or 'health coaching' were eligible. Studies of related topics such as behaviour change and motivational interviewing were not included (except in terms of training).

Studies published in any year were eligible for inclusion. There were no geographic restrictions.

Search strategy

To identify studies for inclusion in the review, two reviewers independently searched ten bibliographic databases, comprising Medline / Pubmed, Web of Science, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Google Scholar, Applied Social Science Information and Abstracts (ASSIA), PsycInfo, ProQuest, Social Care Online, Social Services Abstracts and GreyLit.

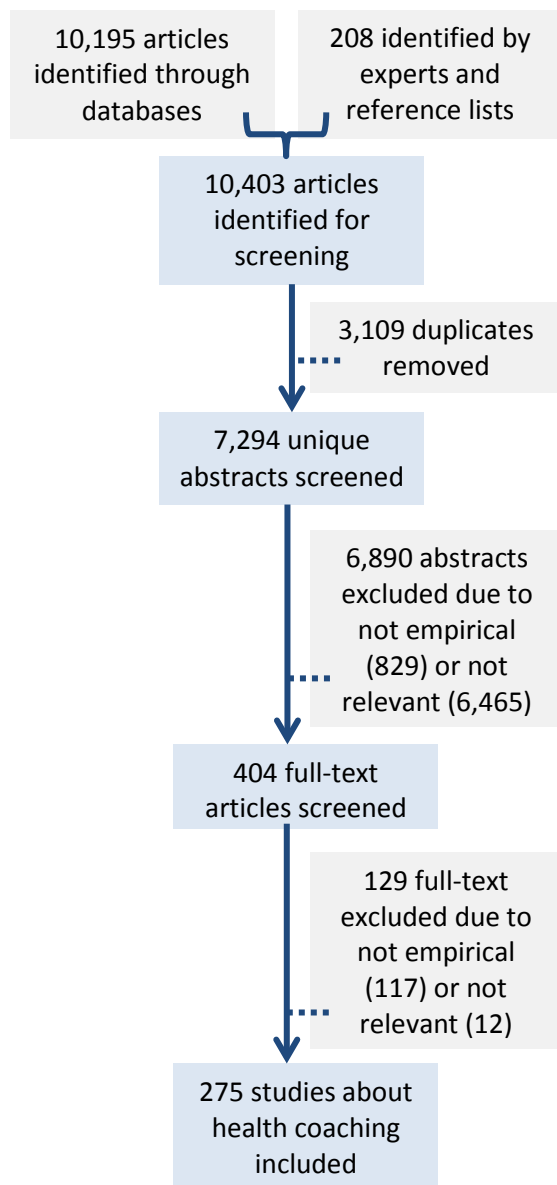
In addition, the bibliographies of identified articles and the websites of relevant organisations such as Age Concern, the Department of Health, the US Institute for Healthcare Improvement, WHO and other think tanks and policy groups were searched. Experts in the field were contacted for further empirical work.

The search terms included combinations of health coaching, health coach, wellness health coaching, wellbeing health coaching, health coaching for health, health coaching, coach, activated consumer, behaviour change, behaviour change counselling, lifestyle modification, navigator, lifestyle counselling, motivational interviewing, self-efficacy, training, cost and similes.

Study selection

A total of 7,294 unique potentially relevant citations were identified. Two reviewers independently screened the titles and abstracts, rating the studies as 'relevant', 'not relevant' or 'uncertain.' The full text of all 'relevant' and 'uncertain' studies was retrieved and screened for eligibility. The findings of those that met the inclusion criteria were summarised for incorporation in the review (see Figure 1).

Figure 1: Selecting studies for the review



Appraising quality

Studies of any quality were included. No formal weighting of quality was undertaken because the aim was to illustrate the diversity of the material available. The review also sought to address questions about who is best placed to facilitate health coaching and who health coaching is most effective with which may be unlikely to be answered by trials alone. However, the results of systematic reviews and randomised trials were reported separately from the results of other studies to make it clear where more robust evidence was available.

Synthesising evidence

In total, 275 studies about health coaching were included in the review, with an additional 67 about training in behavioural change or motivational interviewing.

The review aimed to report high level themes. To synthesise material, the broad findings of each study were extracted independently by two reviewers using a template and then compiled. The studies were heterogeneous in terms of their focus, definitions, research design, size and geographic contexts so quantitative synthesis was not appropriate. A narrative synthesis was undertaken, grouping the literature according to key themes and specific review questions.

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