



community
food and health

(scotland)

Chopping and changing:

Evidence and ideas to improve the impact of your cooking skills courses



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About this report

This report is for anyone who runs, manages or commissions cooking skills courses. It uses evidence from a realist self-evaluation* study group to show the impact of cooking skills courses on people who are affected by health inequalities: vulnerable people and parents managing on a low income.

We focus on various outcomes, such as food and health knowledge, planning and budgeting, and social outcomes; however, the main focus is on improvements to cooking skills and diet, as this is where we had the strongest evidence.

Our learning will give you ideas about how to plan your cooking skills course to improve or maximise your impact. We focus mainly on adults, but have included some information about the impact on children, particularly those who attended a course with their parents or carers.

If you are new to running cooking skills courses, we have cooking skills guides on the CFHS website that you might find useful. **What's cooking in Scotland? Part one** and **Part two** provide practical case studies and ideas on setting up and evaluating cooking skills courses. **What's cooking in Scotland? Part three** helps you critically appraise your cooking skills courses, and discusses some of the behaviour change theories that we highlight in this report in more detail.



*A realist evaluation aims to find out 'What works, for whom, why and in what context'. This report focuses on how people's life circumstances, gender or aspirations affect what difference cooking skills courses made or what outcomes they achieved. It explains why these differences might have happened (i.e. their different reactions to course activities or their life circumstances).



Why we think cooking skills courses work

Behaviour change theory

Cooking skills courses will only work if people react positively to what's happening and if the course is relevant to them. It's not just about people enjoying themselves, getting on well with the practitioner and not feeling judged – the course needs to resonate with people in a number of ways.

Behaviour change concepts (BCCs) were developed using psychological and sociological theories.* These concepts can be used to help understand the different ways in which courses may resonate with people and trigger a reaction from them, which may help them make positive changes to their lives. We have used 10 BCCs to help explain why people might (or might not) achieve outcomes. These are described below using both the title of the BCC and by explaining below it these reactions in plain language.


Outcome expectancy

(understanding the link between food and health)



'Now I know why I should do this.'

Personal relevance




'This is relevant to me and how I like to do things.'

Positive attitude



'I like this.'

Self-efficacy




'I feel more confident to do this.'

Descriptive norms



'My friends are doing this too.'

Behavioural contracts



'I have agreed with someone what I am going to do.'

* These concepts were used to inform guidance for health interventions by the National Institute for Health and Care Excellence (NICE)

Personal and moral norms



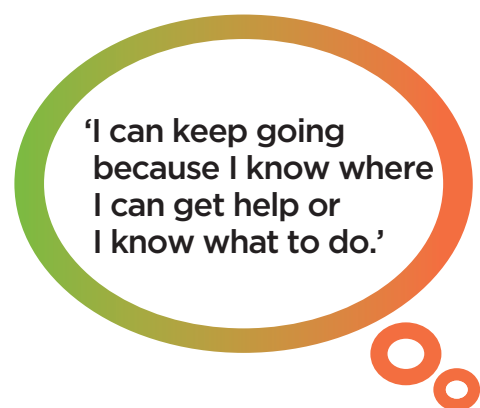
Intention formation and concrete plans



Subjective norms



Relapse prevention



Outcomes achieved

This evaluation focuses on the best information from all courses and covers five main outcomes. The two outcomes that we have most information about is that participants:

- 1 improved their cooking skills**
- 2 made steps to eat a more balanced diet.**

However, we also have information that participants:

- 3 improved their food and health knowledge**
- 4 engaged in groups or social activities more often**
- 5 increased planning and budgeting skills.**

We also have data that suggests participants were more willing to try new foods and replicate recipes from the course at home. How we decided if participants had met these outcomes (what indicators we used) is shown in the figures throughout the report.

Where our evidence comes from

We worked with a self-evaluation cooking skills study group over 2 years to complete a realist evaluation. We gathered information from:

- 29 cooking skills courses that ran for between 4 and 12 sessions (average length: 6 sessions)*
- 92 participants (51 women, 24 men and 17 children)
 - of the 75 adults: 17 were parents or carers on a low-income, 27 were vulnerable and 31 were both vulnerable and low-income parents or carers**
- baseline and post-course questionnaires (27 courses), observation notes (29 courses) and information from third parties, such as a support worker or family member (12 courses)
- follow-up information 1–12 months after the course (61 adults and 8 children)
- information on participants' background, motivations and reactions, and details on how the course was run.

CFHS analysed the information and discussed results and theories with practitioners from the study skills group. We then presented the data to academics, policy-makers and practitioners at an evidence review meeting.

*Many of the courses were run in similar ways, although some of these may be different to your own or other cooking skills courses. The differences in the study group courses allowed us to find out 'what works and for whom and in what context'. The course similarities and differences are listed in the appendix (see page 40).

**You can find out how we defined 'low income' and 'vulnerable' on pages 46 and 47.

Our learning

We gathered strong evidence on the following areas, which we will further discuss in this report:

1 What worked:

Most adults improved their cooking skills.

2 What worked and why:

68% of adults made steps to improve their diet and different dietary changes were associated with different reactions from people.

3 Why it worked:

Reactions were important. The more positive reactions (BCCs triggered), the more likely people were to achieve outcomes.

4 What else worked and who it worked for:

Different groups of people achieved different outcomes.

a. Who it worked for and why: gender

There were gender differences in the outcomes achieved and why they achieved them.

b. Who it worked for and why: vulnerability

People who were more vulnerable were less likely to achieve outcomes.

We also learned about: food and health knowledge; planning and budgeting; social outcomes; willingness to taste new foods; replication of recipes from the course; the impact of offering food-related follow-on activities after a course or providing giveaways, such as equipment or ingredients; attendance rates; children's cooking courses; and motivations.

Figures 1–17 show which groups achieved each outcome and which indicators we used to measure this. At the end of each section we use models to summarise our learning. The models give suggested activities that you could use in your course to trigger specific BCCs (the 'reactions' column). However, these activities are for your consideration only rather than a recommendation, as these activities may have made just a small difference.

What worked



Most adults improved their cooking skills.

Who improved?

In total, 79% of adults developed their cooking skills to some extent and a further 16% already had adequate cooking skills. Only four adults didn't seem to develop their skills at all. Three of these were vulnerable people with both mental health support needs and either a learning disability or autism. Men were more likely to develop their cooking skills compared to women, but women were more likely to be already competent.

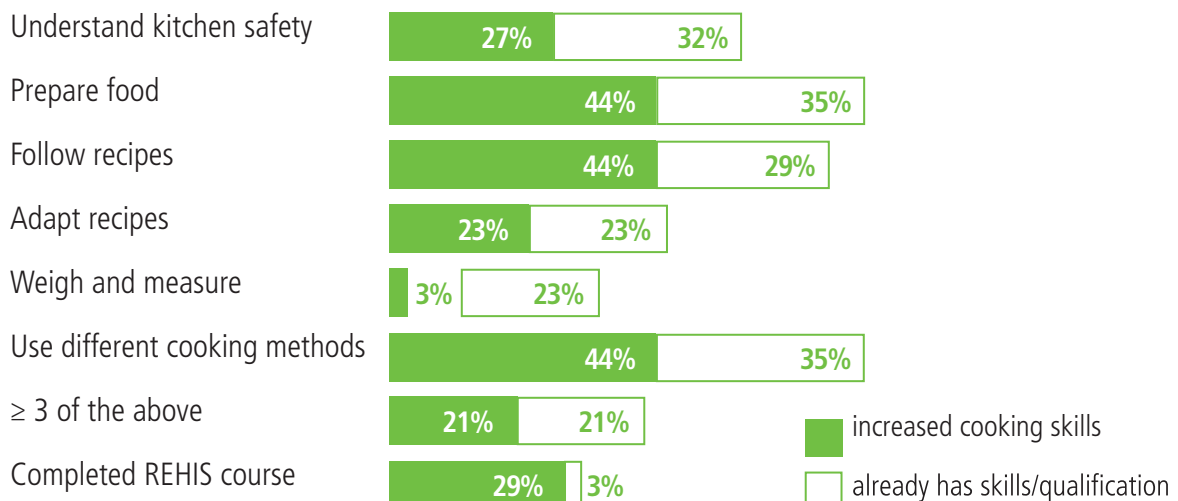
Figure 1: Who improved their cooking skills?



How they improved

There were 21% of adults who developed a wider range of cooking skills (i.e. more than three of the indicators we used to measure their skills). A further 29% of adults also completed the REHIS Elementary cooking skills course. To achieve this REHIS qualification, participants must achieve at least all of the six indicators that we used to measure cooking skills. Figure 2 also shows how many people come along to the course with these skills already.

Figure 2: The skills adults developed



Why they improved

Activities (and BCC responses) that increased the chance of people gaining a wide range of cooking skills were those that:

- helped people to plan more or to get on in life, such as providing people with ingredients to make recipes at home. This triggers intention formation and concrete plans, or personal and moral norms.
- helped people focus more on developing their skills such as by running a slightly longer course. This triggers self-efficacy.
- made people feel proud and got approval from others, e.g. by gaining a REHIS certificate. This triggers subjective norms.

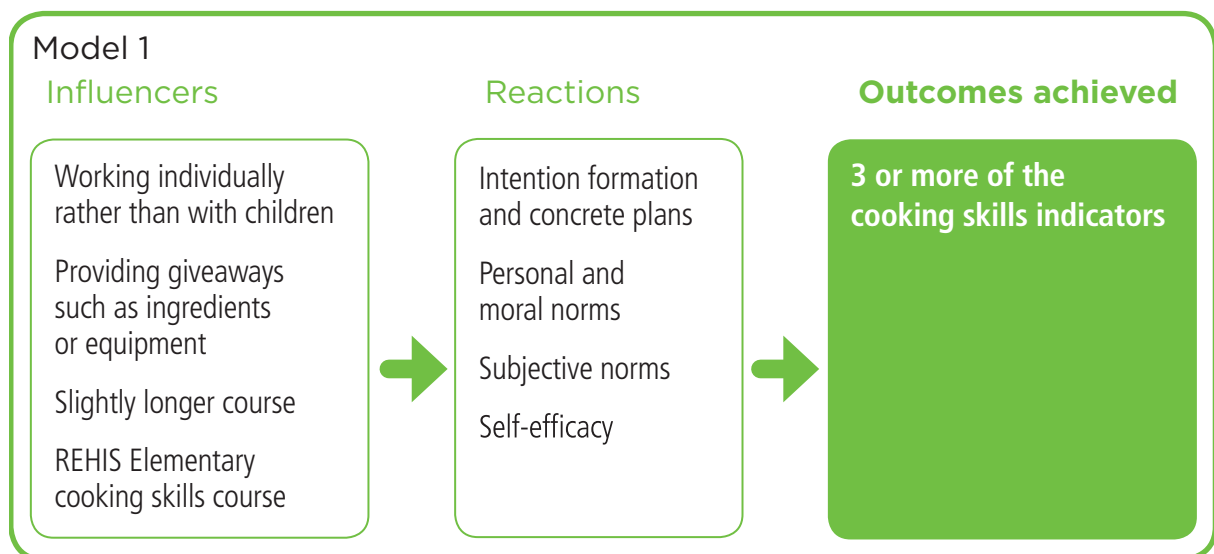
A wider range of cooking skills may be associated with an improved diet

74% of the 75 adults:

- gained three or more of our cooking skills indicators (or were already competent in these skills) or,
- completed (or had already completed) the REHIS Elementary cooking skills course. Of these, 75% made steps to improve their diet, compared to only 47% of the 19 adults who did not gain, or did not already have, this wider range of cooking skills.

How to help people improve their cooking skills

As most adults improved their cooking skills or could already cook, the model below focuses on adults who developed (or already had) a wider range of cooking skills, or had completed the REHIS elementary cooking skills course.





What worked and why

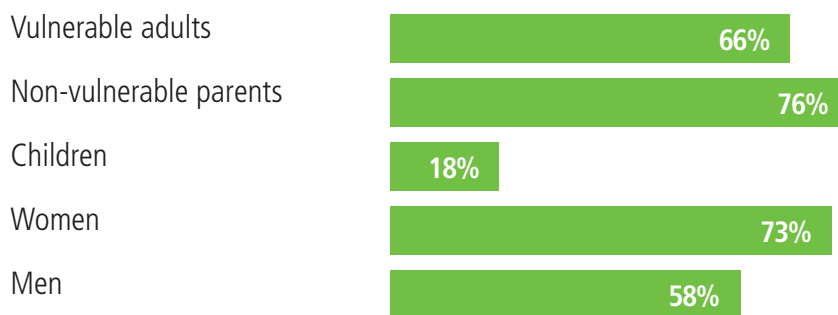


68% of adults made steps to improve their diet, different dietary changes were associated with different reactions from people.

Who improved?

We determined that someone had made steps to change their diet (or their family's diet) if they had made a positive specific change (using our indicators, see Figure 4) at any time during or after the course, or at the follow-up evaluation. We don't know if these changes happened once only, or led to longer-term changes. Figure 3 and model 2 shows how people's circumstances affected improvements to diet.

Figure 3: Who improved their diet?



Model 2

Influencers

Life circumstances

Being less vulnerable
Being a women
Motivated to eat healthy for family or self



Reactions

More BCCs triggered = improved diet



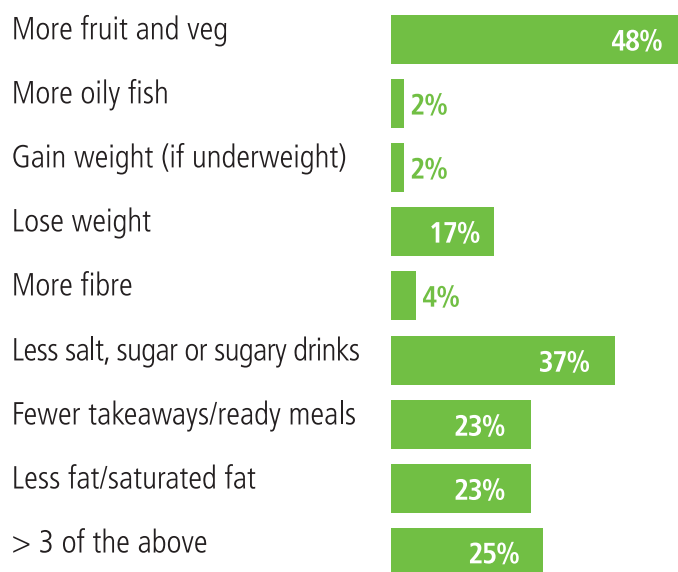
Outcomes achieved

68% of adults improved their diet for themselves or their family

How they improved

The most common change was increased fruit and veg, seen in 48% of adults. Women made slightly more improvements on all types of diet changes (total of 73% vs. 58%), except fruit and veg where a few men did slightly better (50% vs. 47%) (data not shown).

Figure 4: How people improved their diet



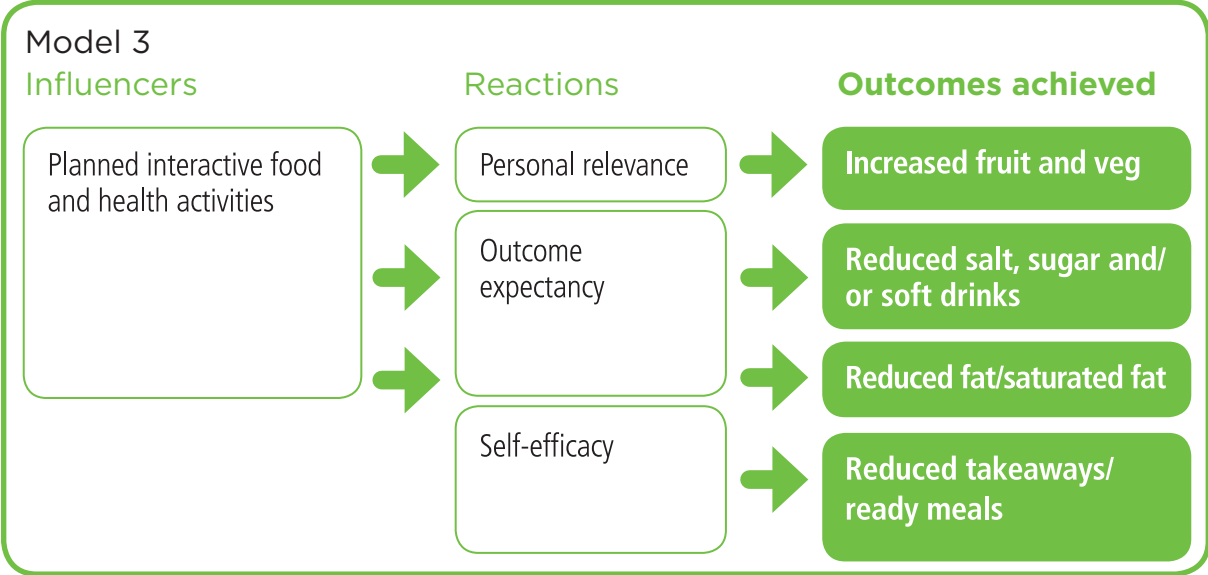
Why they improved

Running interactive food and health activities improved all types of diet change, however, this was particularly noticeable with changes to the intake of sugary drinks, sugar, salt and fat. Model 3 shows that different reactions (BCC triggers) were associated with different types of diet changes. Practitioners in our study group suggested why these triggers may be different:

- Outcome expectancy (understanding the link between food and health) for increased fruit and veg may not have been triggered because most people are already aware of the five-a-day message.
- Personal relevance might be triggered for fruit and veg consumption because the course shows easy ways to include more fruit and veg in recipes chosen by participants.
- Outcome expectancy was triggered for the reduction of sugary drinks or snacks or salt (and fat) because people may be less aware of the quantities of sugar or salt in some snacks or ready-made foods and the impact this can have on their health. So activities or discussion about improving understanding of salt, sugar and fat and its impact on health may trigger outcome expectancy.

Other than providing healthy eating information and being motivated to eat healthier, other activities that seemed to be associated with improving diet seemed to vary slightly for different people. This is explored further below.

How to help people improve their diet

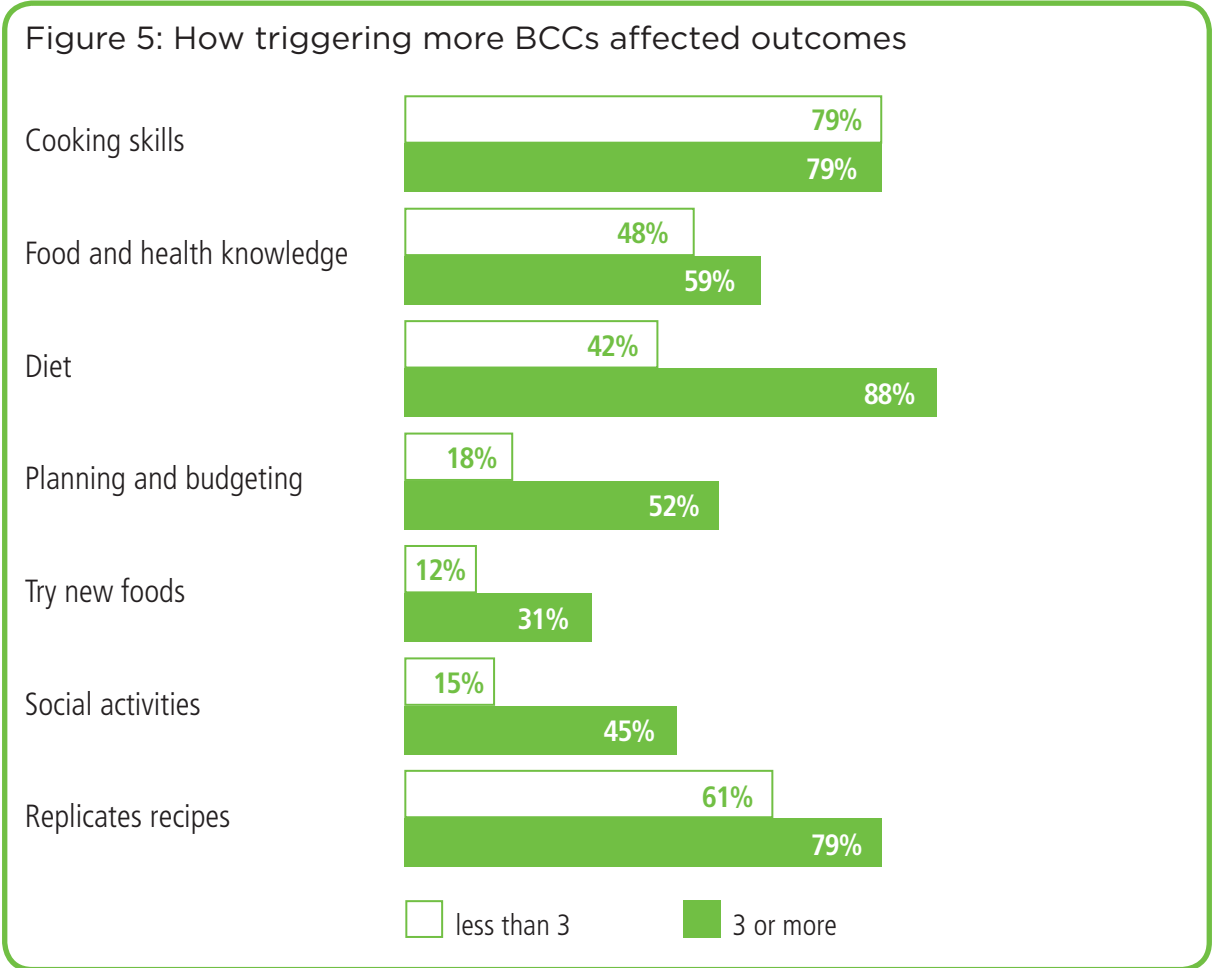


Why it worked



Reactions were important. The more positive reactions (BCCs triggered), the more likely people were to achieve outcomes.

Figure 5 compares what outcomes people who triggered three or more BCCs achieved (42 adults) with those who triggered two or fewer positive concepts (33 adults).



Triggering more BCCs increased the number of outcomes achieved and it didn't matter which three (or more) were triggered. Each combination was unique to each person. However, there were some gender differences and these are discussed further later (see page 23–26).

It also didn't matter if one or two of the BCCs were triggered negatively by a participant, e.g. showing boredom during a food and health activity – thus triggering a negative outcome expectancy BCC, as long as they triggered more positive BCCs too.

The chart accounts for these negative triggers by showing the net number of BCCs positively triggered.

What else worked and who it worked for



Different groups
of people achieved
different outcomes.

Figures 6–10 show that different groups of people achieved different outcomes. Later in this section we will look at the specific effect of both gender and vulnerability.

Figure 6: Who increased their food and health knowledge?

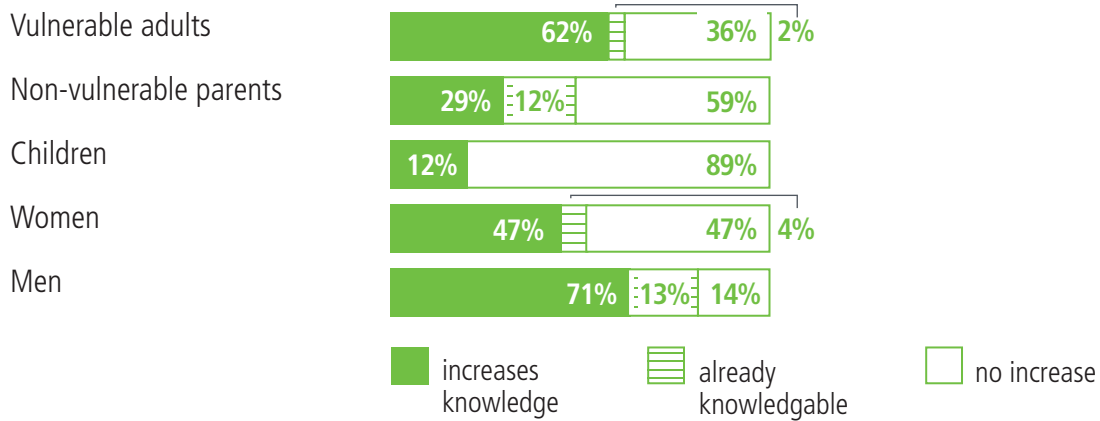


Figure 7: Who got involved in more social activities?

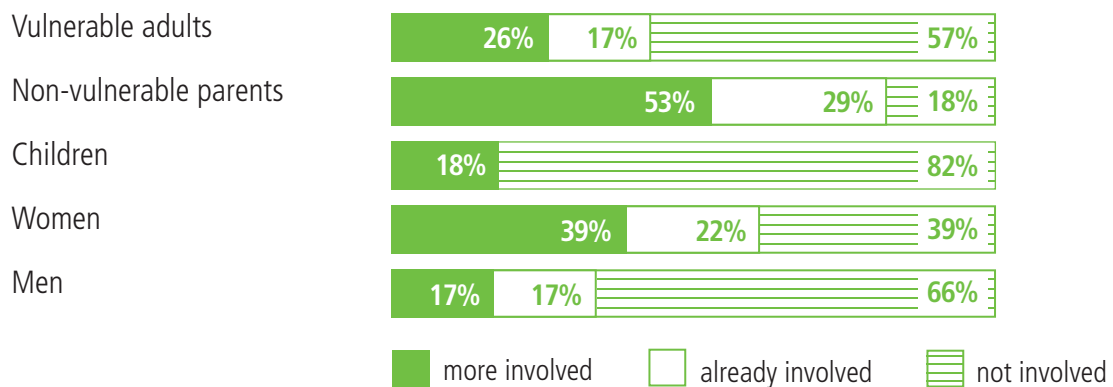
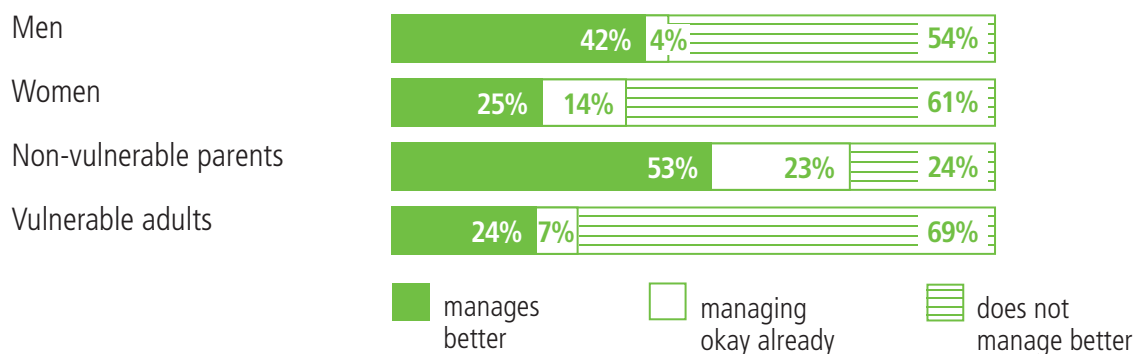


Figure 8: Who developed planning and budgeting skills?*



*Children did not develop or already have these skills

Figure 9: Who made the recipes again at home?

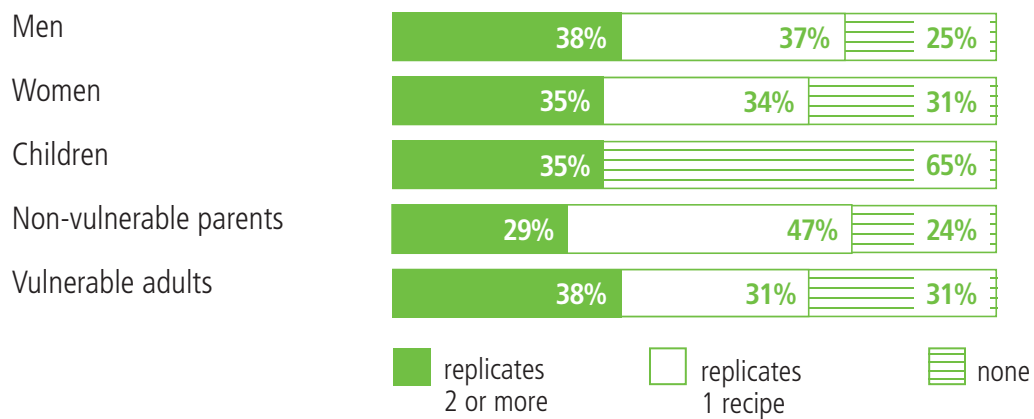
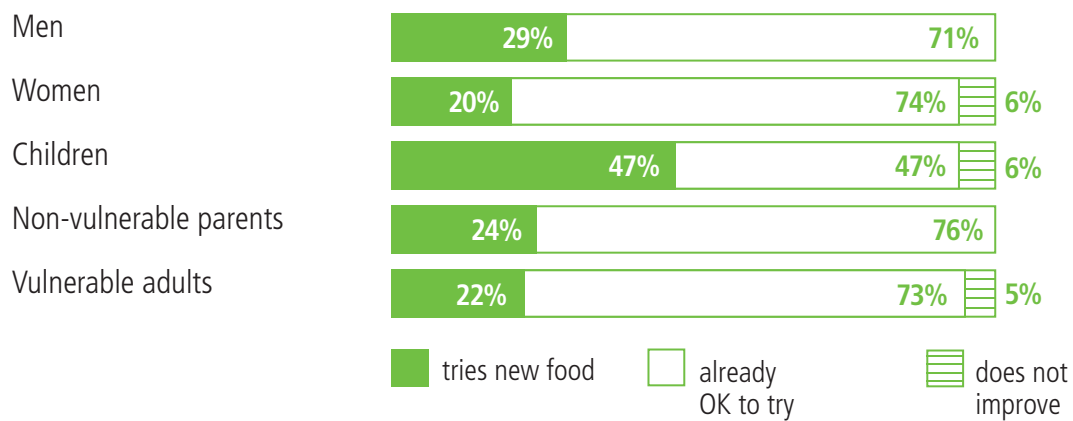


Figure 10: Who was more willing to try new food?

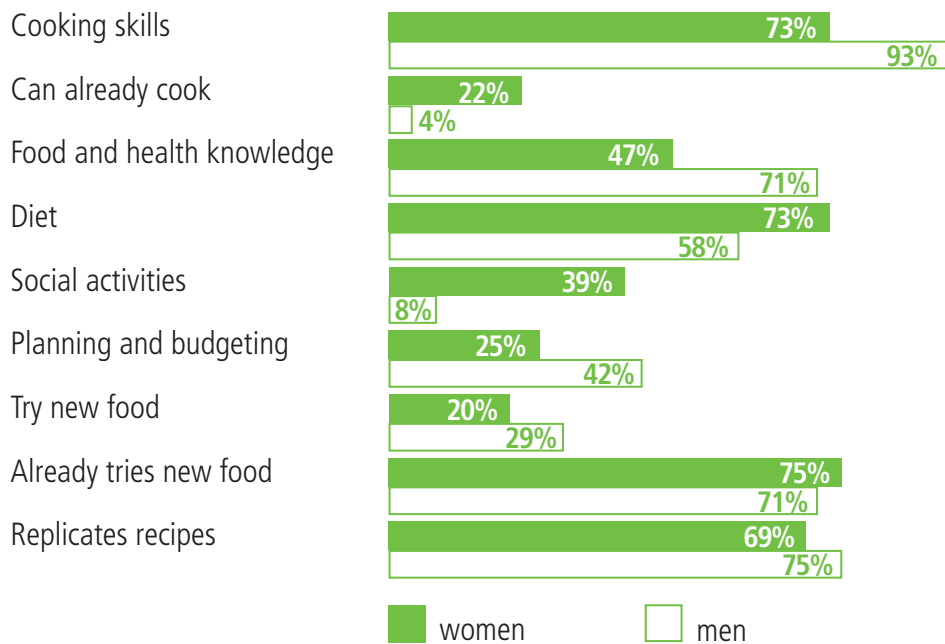


Who it worked for and why: gender



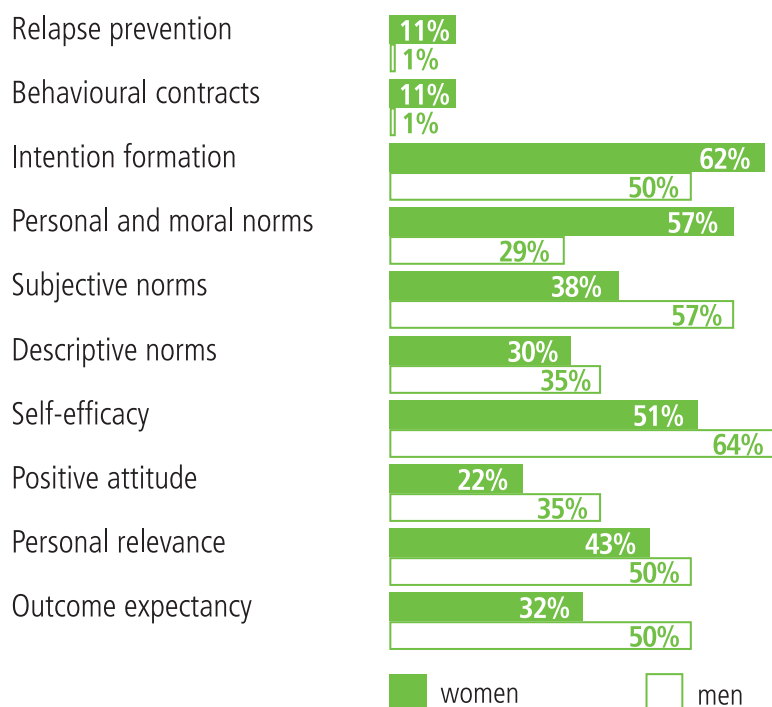
There were gender differences between the outcomes achieved and why they achieved them.

Figure 11: Gender differences in which skills were developed



Although there was a big overlap between which responses, or BCCs, triggered that helped men and women achieve outcomes, there were some noticeable differences. The chart below shows what BCCs were triggered for the 14 men and 37 women who improved their diet. There was a similar pattern of reactions across the other four outcomes that we looked at.

Figure 12: Gender differences in the BCCs triggered for diet



Men's reactions

A total of 24 men took part in cooking skills courses, which is a small number to make firm conclusions about. Most of the men were also vulnerable, which was shown to reduce the outcomes achieved. However, when comparing vulnerable men and women, there were still differences between what they achieved and their responses to the course activities.

Men achieved more outcomes if they triggered self-efficacy, i.e. they improved their confidence and skills to carry out tasks.

Men were also more likely to improve the diet if the reactions triggered subjective norms, i.e. they had reasons to feel proud.

Women's reactions

In total, 51 women took part in the cooking skills courses. Women achieved more outcomes if they triggered personal and moral norms (i.e. they wanted to get on in life or feel useful) and/or intention formation and concrete plans (i.e. beginning to make plans for themselves.) Although men triggered these types of reactions too, they did not seem to lead to any of the five outcomes that we were interested in.

What course activities were useful?

There was an overlap between the types of activities that were useful for men and women. Activities that were more inclined towards building skills, such as slightly longer courses or concentrating on fewer recipes, were slightly more relevant to men. Activities that were more relevant to women were more inclined towards tools and ideas for planning (such as menu planning and giveaways).

Why did men and women react differently?

There are likely to be many reasons why men and women were responding differently; however, men and women's motivations to attend the course were slightly different. People gave one or more reason for why they wanted to attend the courses. 79% of men and 49% of women were motivated to attend to learn to cook. Men and women showed similar levels of interest in healthy eating for themselves or their family. Women were more likely to say they were interested in attending for social reasons: (35% compared to 25%).

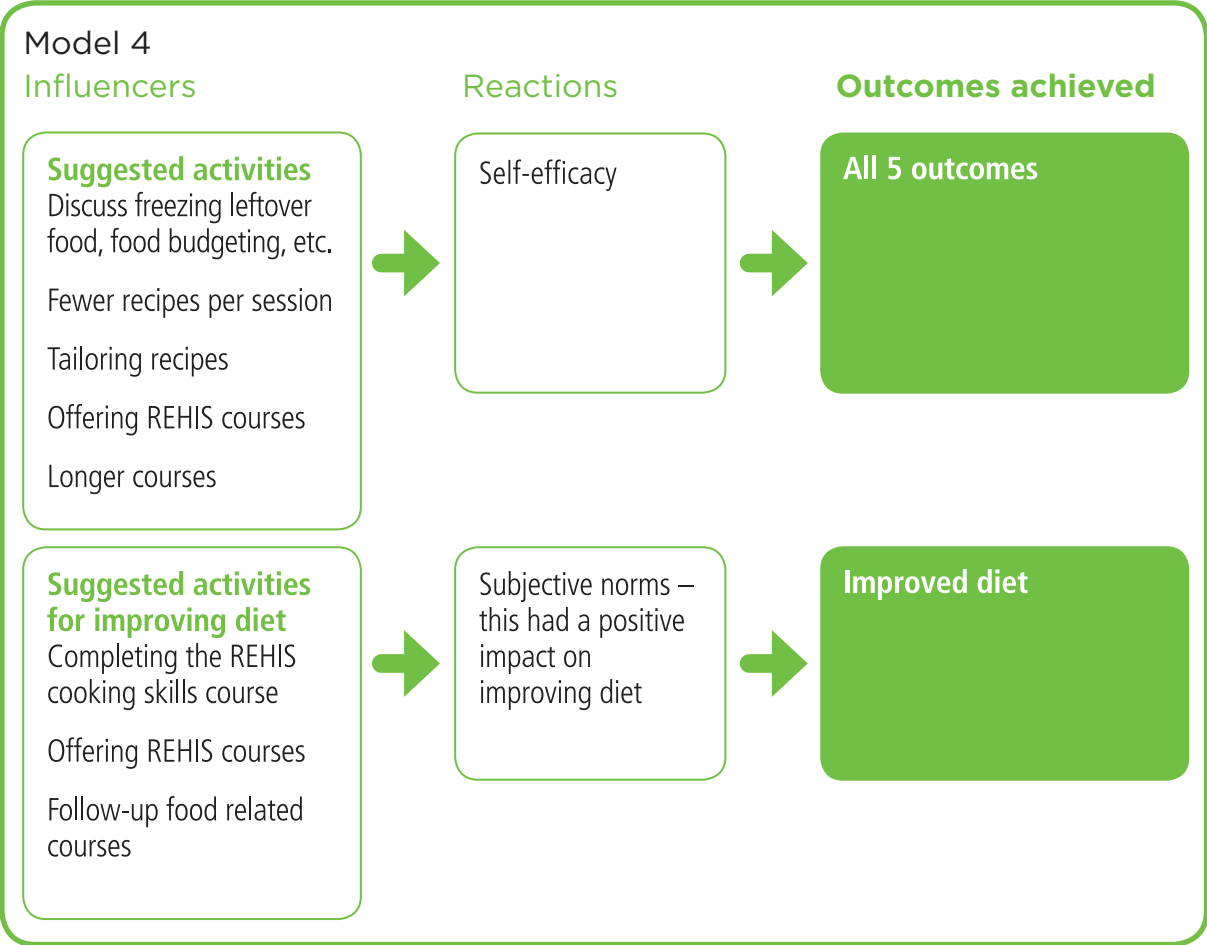
Other gender differences were that men were more likely to replicate recipes from the course again at home, and women were more likely to achieve the social outcome (moving onto other social activities).

How outcomes work together

11 out of 14 men who improved their diet had also developed their knowledge. Developing planning and budgeting skills may have also helped improve their diet. Eight out of the 14 men who improved their diet also developed their planning and budgeting skills. The impact of knowledge was less obvious for women; of the 37 women that improved their diet, 23 had also developed their knowledge, (2 had this knowledge already); however, 12 women improved their diet without appearing to have developed their knowledge. The information for if women improved their diet because of gaining, or already having, adequate planning and budgeting skills was less clear as this information had not always been collected.

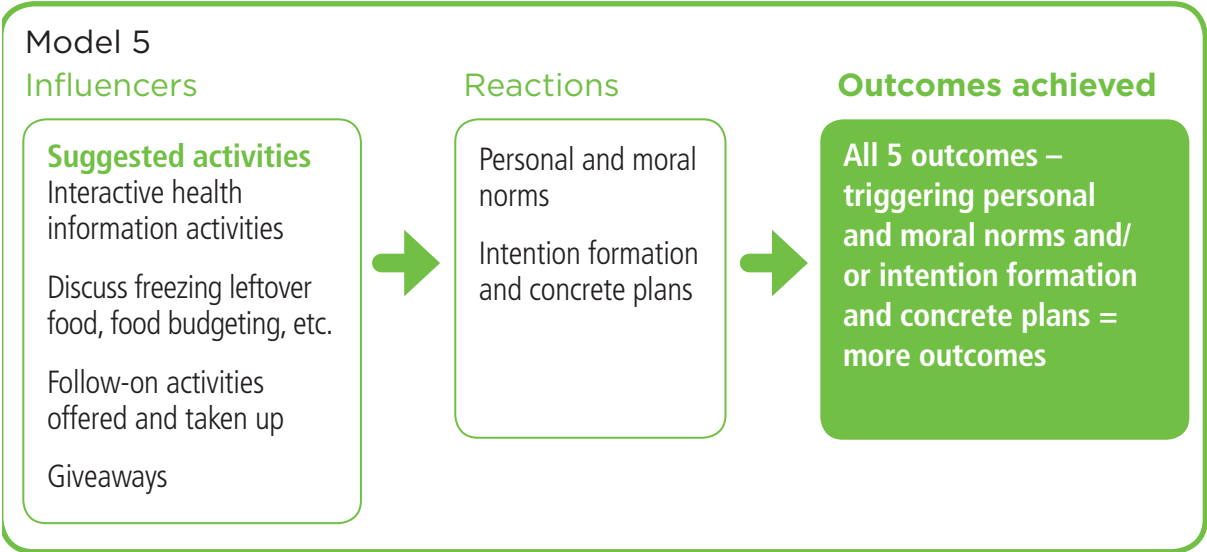
How to improve your course for men

The model below shows what issues or activities had an impact on men’s reactions and what outcomes they achieved.



How to improve your course for women

The diagram below shows what issues or activities had an impact on women’s reactions and what outcomes they achieved.



Who it worked for and why: vulnerability



People who were more vulnerable were less likely to achieve outcomes.

Only 17 of the 75 adults included in our evaluation showed none of the vulnerabilities that met our criteria (see p. 47 for a list of vulnerabilities included in our criteria). It is clear that vulnerability did have an impact on many of the outcomes achieved. It also made a difference to how people reacted (the BCCs triggered). There were 58 adults who were vulnerable: 31 of these were also parents on a low income.

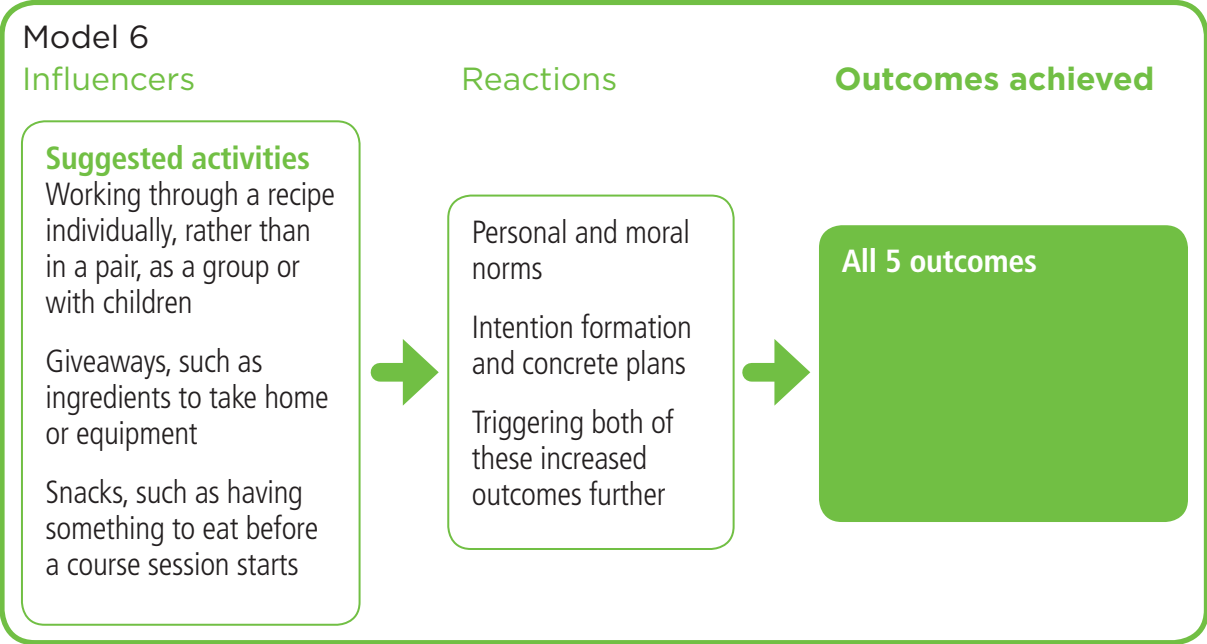
Vulnerable parents were no more likely to achieve the outcomes than other vulnerable people who were not parents. Being a parent did not help people to achieve outcomes – having no or fewer vulnerabilities was the key to achieving outcomes.

Figures 6–10 show how having a vulnerability was a barrier to achieving many of the outcomes, compared with participants who were low-income parents with no vulnerabilities that fit our criteria. Some vulnerabilities, such as having mental health support needs or a learning disability, seemed to make it particularly difficult to achieve the outcomes we were interested in.

How vulnerable and non-vulnerable adults reacted

All the non-vulnerable low-income parents who achieved three or more of our five main outcomes triggered personal and moral norms, or intention formation and concrete plans, or both. For non-vulnerable parents to achieve outcomes, they needed to make plans for themselves and to feel useful. The reactions of vulnerable adults were more diverse: the pattern of which BCCs may have led to more outcomes wasn't as clear, perhaps demonstrating the diverse nature of this 'group'.

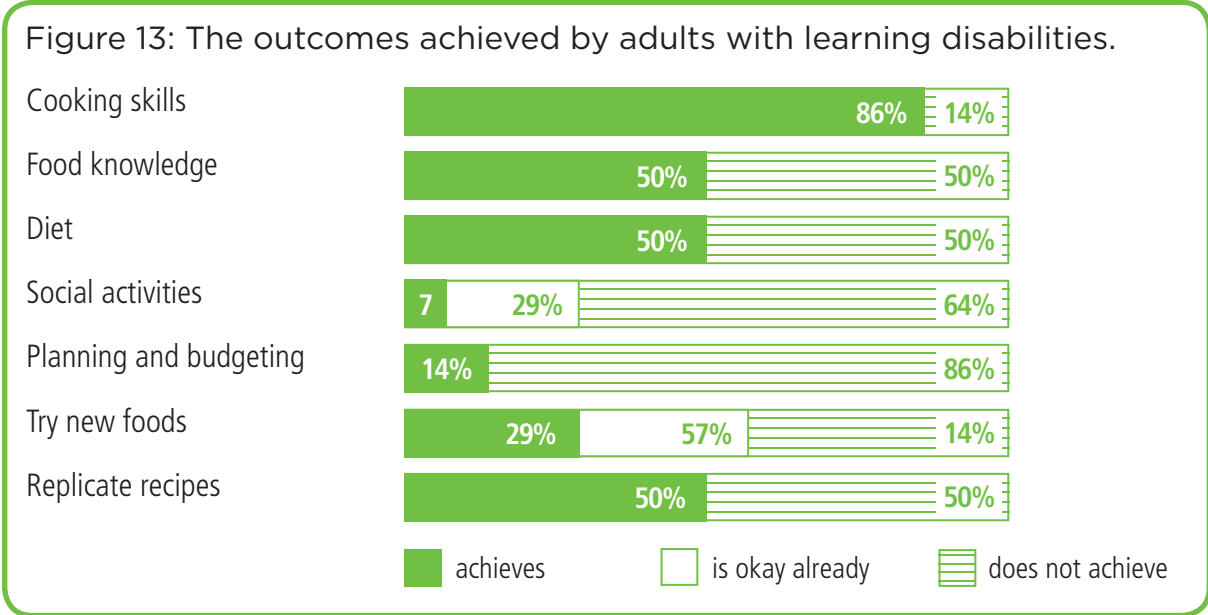
How to improve your courses for low-income, non-vulnerable parents



The two largest vulnerable subgroups in our evaluation were adults with a learning disability (14 people) and adults with mental health support needs (12 people). Four of these had both a learning disability and mental health support needs.

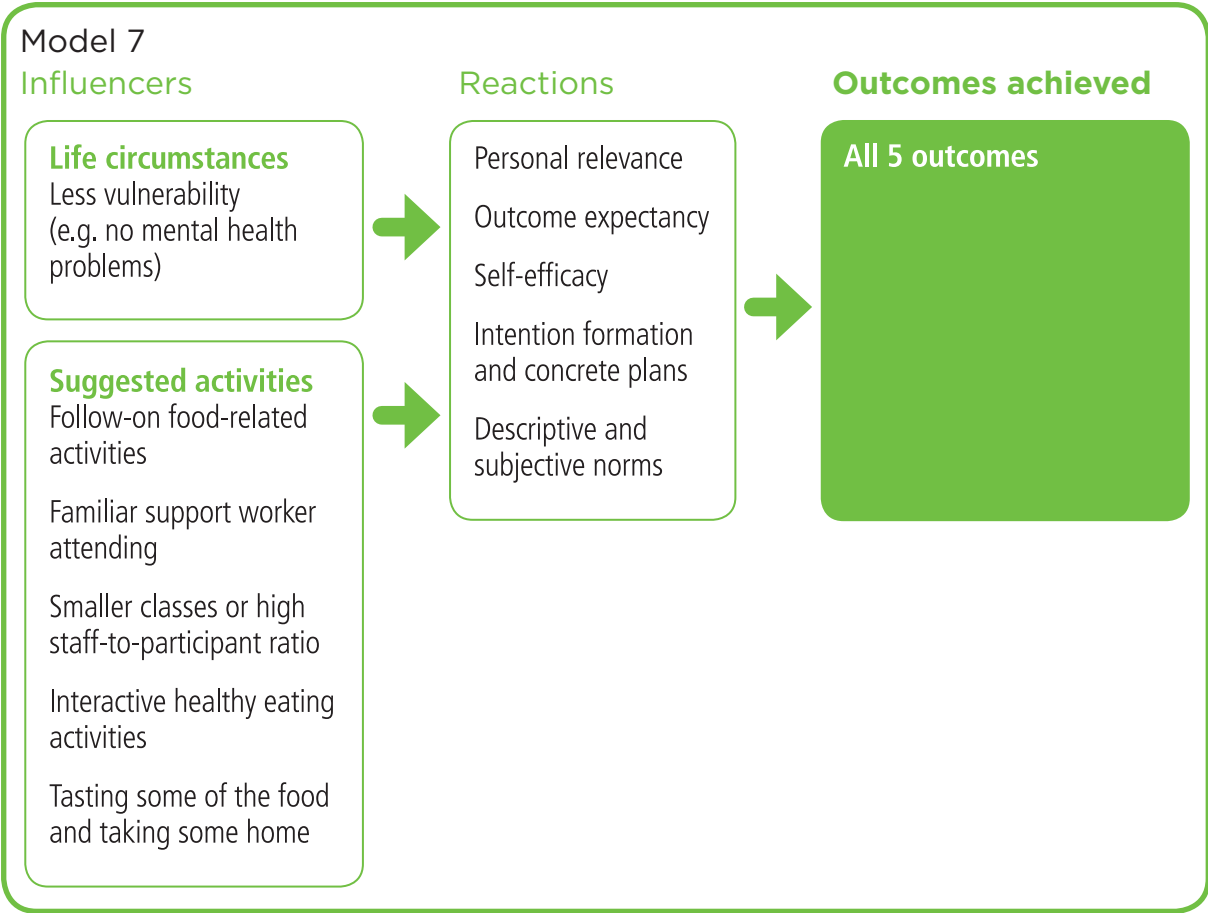
Adults with learning disabilities

The information about adults with learning disabilities is based on very small numbers. Two courses (for a total of six individuals) were solely for those with a learning disability. The rest attended mixed courses.



Those not achieving outcomes were more likely to trigger negative BCCs, i.e. they were unable to, or were not confident to, undertake cooking tasks successfully; thus triggered negative self-efficacy, or they were unable to undertake tasks without ongoing support; thus triggering negative relapse prevention.

How to improve your courses for people with learning disabilities



Adults with mental health support needs

There were 12 adults who had mental health support needs, five of whom also had a learning disability or were on the autistic spectrum. Most developed their cooking skills or could already cook. Only five people in the group achieved more than one of the five outcomes in our evaluation. All five had a shared, or had their own, support worker attending the course with them.

Why they didn't seem to improve

The BCCs triggered were very mixed. Those who gained one or no outcomes in our evaluation (seven people) were attending larger courses, and only one had a support worker in attendance. However, five out of the seven had an additional learning disability or were on the autistic spectrum. This increased vulnerability is likely to have affected any outcomes being achieved.

Other learning

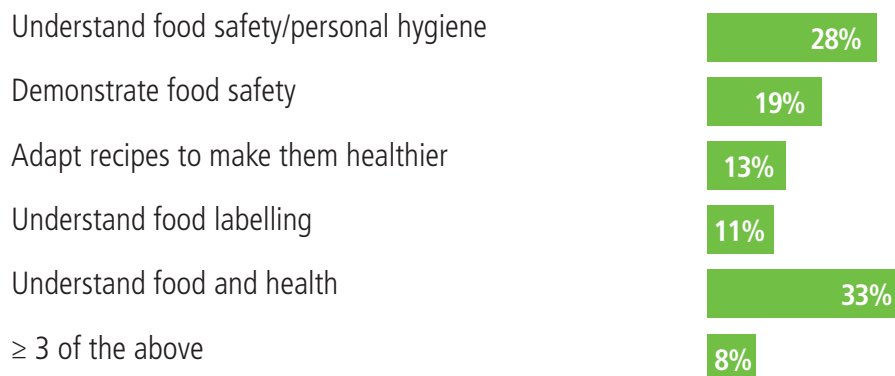


We had the strongest evidence for the five learning points above, however, we did learn other things during our analysis which may help you when designing your cooking course.

Food and health knowledge

In total, 55% of adults increased their food and health knowledge. This included food safety knowledge as well as knowledge about nutrition (Figure 14). This may be low because evaluation information was not always gathered by practitioners for this outcome.

Figure 14: How adults improved their knowledge

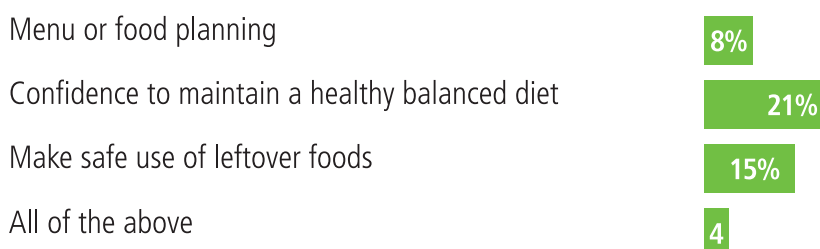


Those who did increase their knowledge were slightly more likely to have taken part in planned food and health interactive activities (such as reading food labels or looking at the levels of sugar or salt in some foods), in addition to more opportunistic information (such as discussing salt while preparing a recipe). A total of 60% of adults who took part in planned activities improved their knowledge compared with 53% who did not.

Planning and budgeting

In total, 31% of adults improved planning and budgeting skills. Men were more likely than women to achieve this (42% vs. 25%). However, it was less relevant to women (14% of women were already confident with these skills vs. one man). Self-efficacy was important for developing these skills in both genders.

Figure 15: What planning and budgeting skills adults developed



Social outcomes

Our evaluation project had only one indicator to show that the social outcome had been met: this was participants moving onto other (structured) social activities. There were 22 adults who moved onto another activity, two of these were men and 20 were women. A further 14 adults (two men and 12 women) were already involved in other social activities.

Willingness to taste new foods

The majority (74%) of adults on the courses were already comfortable trying new foods. Of the 20 adults who were less comfortable to try new foods, only three didn't overcome this (all three were vulnerable women). All courses encouraged participants to influence or choose what recipes they would like to learn. Practitioners suggested this may have had both positive and negative effects. Participants may choose foods they are already familiar with. This may mean they choose recipes they are more likely to want to use again; however, this may also result in not straying too far from foods that they know they might like.

Replication of recipes from the course

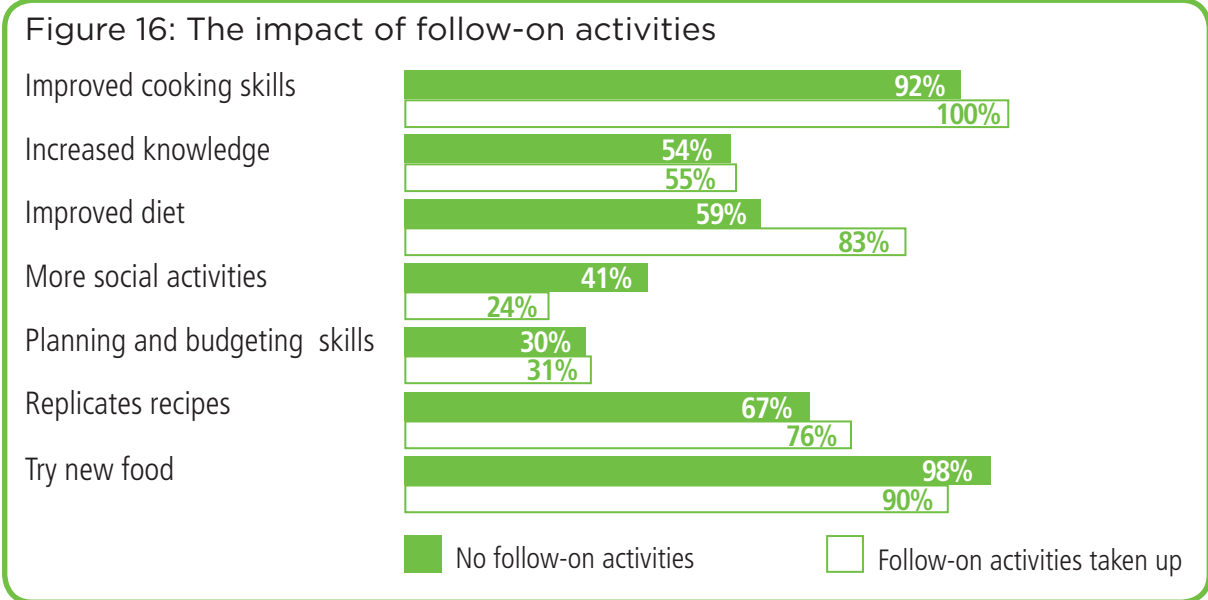
The majority (71%) of adults made one or more of the recipes they had learned on the course again at home. Over half of the people replicating recipes used very simple recipes such as soup, wraps, wedges and pitta pizzas. However, more involved recipes, such as curries or macaroni cheese, were also replicated. Those who replicated recipes were slightly more likely to achieve outcomes on improved diet: 70% improved their diet compared to 64% who did not replicate recipes.

Course activities that helped everyone

Being offered and taking up follow-on food-related activities after completing the course was the activity that had the greatest benefit and helped most people achieve outcomes. This had the most effect on positive changes to diet. Follow-on activities included extra cooking courses, food hygiene courses and volunteering opportunities in community cafes, lunch clubs or on other cooking courses. There were 29 people who were offered and took up these additional activities.

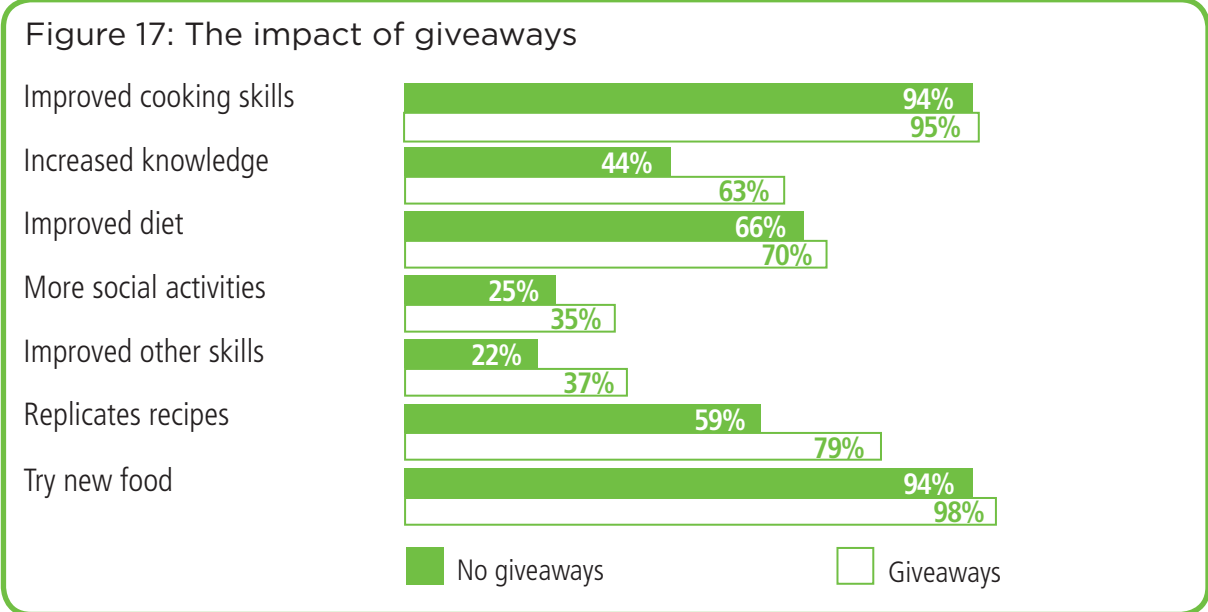
The impact of follow-on activities

The chart below compares what outcomes the 29 people taking up follow-on activities achieved compared to 46 who did not.



The impact of giveaways

Another activity that had a slight difference across all outcomes was providing giveaways, such as equipment or ingredients. There were 43 adults who received giveaways and 32 who didn't. Giveaways had more impact on participants replicating meals again at home and planning and budgeting. If ingredients were provided as part of the giveaways it is probably not surprising that this may have helped participants replicate recipes again at home.



Attendance rates

Only one course had full attendance rates – a course for adults with learning disabilities. Of the 75 adults included in this evaluation, 80% either attended all sessions or missed just one session. In our evaluation we only included information from participants who attended three or more cooking course sessions. This resulted in 24 ‘missing people’ who were not included in our analysis (all adults), most of which were either vulnerable men, young people in temporary accommodation or people with mental health support needs.

Children’s cooking courses

Children achieved fewer outcomes than adults. There were just 17 children who took part in the cooking courses: 11 of whom were on the autistic spectrum. Of the 17 children, 13 attended courses with their parents and four older boys attended a course for autistic boys. The small numbers of children, the range of ages and vulnerabilities involved means that it is difficult to draw conclusions about what might work for children.

The main outcomes for children were that most of the children increased their cooking skills: seven children developed three or more cooking indicators; and eight of the nine children who were less willing to try new foods were successfully encouraged to do so.

Positive reactions from children

The BCCs triggered were positive attitude and descriptive or subjective norms, i.e. being positive about being on the course and getting approval from the other children or from parents and practitioners. However, these reactions were not clearly associated with any of the outcomes.

Motivations

Adults reported that they wanted to attend courses for one or more of these reasons:

- to learn about healthy eating for themselves, their family or to address fussy eating
- to learn to cook
- for social reasons
- to gain a qualification or to help employment prospects.

Adults who were interested in healthy eating for themselves, their family or to address fussy eating were more likely than those who had not expressed this interest to achieve outcomes on food and health knowledge (67% vs. 47%), improved diet (80% vs. 60%) and planning and budgeting (40% vs. 24%).



What we have learned

- ✓ We have good evidence to show that short cooking skills courses improve people's cooking skills.
- ✓ Having a wider range of cooking skills may be associated with an improved diet.
- ✓ We have evidence to show that many adults attending these courses have made steps to improve their diet, including people who seemed less motivated to learn about healthy eating.
- ✓ It was clear that if a course resonated with people in different ways, that is, it triggered at least three of the 10 BCCs, people achieved more outcomes.
- ✓ Men, women and those with different barriers in the lives, responded differently to courses. This suggests that cooking skills courses need to be adapted to groups (or tailored to individuals) rather than have a one size fits approach. Hence, the cooking skills course activities we suggest throughout this report are for consideration only, rather than a recommendation: you will need to try different activities with your own groups and assess the reactions and their impact.
- ✓ However, two course activities showed an impact with a wide range of participants. Follow-on food-related activities seemed to help many people achieve more outcomes, especially improving their diet. This may have provided scope for people to reinforce their skills and continue to hear healthy eating messages. Providing giveaways such as equipment or ingredients, was associated with a slight increase in achieving a range of outcomes.

Appendix: Methods

How we gathered our evidence

Our evaluation was carried out using a realist approach (see p. 42 for further information). The aim of our evaluation was to find out what contexts and mechanisms within community cooking courses help achieve or improve the outcomes for participants from low-income communities. Our evaluation was carried out in two stages:

Stage one – realist review (2014–2015)

We commissioned Avril Blamey and Associates to analyse existing information on cooking skill courses.

Methods

- Gather grey literature (e.g. lesson plans, evaluation forms) from practitioners from at least 81 courses.
- Examine underlying theories and ideas with four focus groups (two course participant groups and two practitioner groups).

Results

- Courses reached participants who are vulnerable and/or from low-income communities.
- Course activities met National Institute for Health and Care Excellence (NICE) recommendations for behaviour change theory-led programmes.
- Behaviour change theories can be used to understand the mechanisms (reactions) that are being triggered.
- Course strategies (activities) seem to fit around approaches of targeting, tailoring and reinforcement.

Challenges

The data were not robust enough to form context–mechanism–outcome configurations. (see p. 42)

Stage two – realist self-evaluation study group (2015–2017)

We set up a self-evaluation study group to work with a group of people who regularly ran cooking courses to gather more robust data to form context–mechanism–outcome configurations.

Methods

- Eight study group member organisations from across Scotland (four NHS and four voluntary and community sector) provided evaluation data. Each ran four courses.
- Each organisation received funding of £1500 each towards the costs associated with taking part in the study group project.
- Each member provided data from courses for vulnerable* people or parents on a low-income (*definitions agreed by the group).
- The group agreed to a set of outcomes and indicators to evaluate the courses.
- The group aimed to collect triangulated data (i.e. from three sources) to ensure data were robust.
- Behaviour change concepts were used to understand the mechanisms (reactions) triggered.
- The evaluation initially focused on if participants taking the cooked food home with them, tasting or eating some of the food and taking some home, or eating together at the end of a course session made any difference to outcomes.

Outputs

We received information about 92 participants attending one of 29 courses. The courses had both similarities and differences.

Similarities

- Courses were friendly, informal, listening and adapting to the needs and aspiration of groups (targeted) or individuals (tailored).
- Most participants were recruited through support organisations or targeted to specific groups (e.g. parents using a nursery in a low-income area).
- There was a high practitioner to participant ratio: 86% were 1:3 or less.
- Participants could contribute to the course by helping others.

- Participants chose which recipes they wanted to learn after the first session, usually as a group, sometimes individually. Recipes were chosen from course recipe books or people said what types of recipes they wanted to learn.
- Courses used simple, tasty and affordable recipes with familiar ingredients.
- Participants were given recipes to take home after each session.
- For most, people worked individually and learned each step of a recipe (although accompaniments such as pasta may be cooked collectively).
- Courses produced generous amounts of food for people to eat together and/or take home to share with others.
- Course sessions lasted around 2–3 hours.
- Food and health information provided opportunistically throughout the course.

Differences

- Courses attended by a wide range of people: they varied by gender, age and vulnerability and people had a variety of motivations to attend.
- Some courses offered qualifications, such as the REHIS Elementary cooking skills course.
- Some practitioners used tools or discussion to help people plan, such as meal planners, or discussed shopping, bulk cooking and freezing food.
- Some provided ideas or discussion about fussy eating.
- Some planned food and health interactive activities, such as reading food labels and visual activities on the amounts of sugar, salt, etc. in food.
- Some planned activities or opportunities that may reinforce skills and knowledge, such as getting further help from a support worker, opportunities to volunteer for a community cafe or attend another course.
- Some provided giveaways, such as equipment or ingredients.
- Course length varied from 4 to 12 sessions, but the average course length was 6 sessions.



What is a realist approach?

A realist approach aims to find out 'what works, for whom, why and in what contexts' by explaining the relationship between the context in which an intervention (i.e. a cooking course) is delivered, the mechanisms it triggers (i.e. how participants respond) and the outcomes it achieves. Realist evaluations try to identify the theories that underlie interventions (i.e. why they work or don't work). Theories are developed by putting together context–mechanism–outcomes configurations.

Context also included course participants' background and their motivations. A simple example of a possible theory (and a context–mechanism–outcome configuration) could be:



Context

A participant is able to choose which recipe they want to learn to cook during a course.



Mechanism

The participant feels the recipe is 'relevant' to their needs and wishes.



Outcome

The participant tries the recipe again at home after the course.

Why use a realist approach?

Community cooking courses are delivered by a range of third and statutory sector organisations. They aim to achieve a range of outcomes, involve people from low-income communities and with a range of vulnerabilities and can be participant led or influenced.

We wanted to learn from the experience of the practitioners in our study group and how they deliver cooking courses rather than ask them to change what they already do. We wanted to help build self-evaluation skills of practitioners in our study group and for them to use or develop evaluation tools relevant to the outcomes planned for each of their cooking courses.

A realist evaluation can help unpick how a wide range of approaches used in cooking courses might (or might not) work, and who they might work for. Many evaluation tools can be used to carry out a realist evaluation.

Data

The study group practitioners gathered the following data across the 29 courses and from/about participants.

Participant self-reporting

- 27 courses included questionnaires
- 12 courses included focus groups
- 5 courses included interviews
- 4 courses included videos or photos
- 3 courses included menu planners or food diaries.

Practitioner views

Twenty-nine courses were observed and reflected on, with notes or reports written up; and 16 courses included reflection meetings with CFHS staff. Most of these were recorded and transcribed.

Third party or other information

Three courses used quizzes to assess knowledge; and 12 courses included information from a third party, such as support workers or family members

Baseline, end-of-course and follow-up information

Although baseline and end-of-course questionnaires were used on most courses, these did not often cover all planned outcome indicators. Indications of changes from baseline were also provided through observation and other types of data collection.

Follow-up information was gathered from 69 participants (61 adults). However, few of the course follow-up questionnaires covered all the questions that were used at baseline and at the end of the course.

Validating results

Throughout the evaluation, we checked and further refined our theories by discussing our ideas with practitioners, both during reflection meetings and at a study group meeting after initial analysis. We also presented our evidence to a meeting of academics, Scottish Government policy-makers, national agencies and study group practitioners so they could discuss or challenge our evidence. The meeting was attended by 25 people.

Evaluation information

A realist evaluation needs extensive qualitative and quantitative data. Practitioners were provided with checklists to help gather information. Each of the 29 courses included information about:

- each participant – their background, such as the nature of their vulnerabilities and motivations for attending the course
- recruitment and attendance
- where the course was delivered, the types of facilities used and who ran the course
- details about all the course strategies, such as all the activities that took place, how participants learned to prepare foods (in pairs, etc.) and information about the recipes learned
- how courses were adapted to the group or participants, information about group dynamics
- how each participant responded to different parts of the course or the group
- outcome and indicator information – further information about this is below.

Information about participants was anonymised by practitioners.

Outcomes and indicators

We considered that a participant (or their family) had achieved an outcome if there were specific examples, at any stage of the evaluation, of change matching one or more of the outcome indicators. The following examples would be considered to have achieved the outcome about improved diet:

- A participant indicated on their baseline questionnaire that they eat fruit once a week and this rose to three times a week in the post-course questionnaire.
- A participant brings bottled water along to the course instead of sugary fizzy drinks after talking about sugar during the course.
- A parent reports that their child has constipation less often, after including more beans and pulses in the child's diet as suggested by the practitioner.

The following examples would not be considered sufficient to indicate that a participant had improved their diet:

- A participant reports that they and their family are eating much healthier since they attended the course.
- A support worker reports that a participant is looking much better and eating better since they attended the course.

Participants' reactions

We used the 10 BCCs to code participants' reactions to the course, both from their behaviour or what they had said. We looked for stand out reactions, positive and negative. This was gathered from qualitative information such as observation notes, interviews, focus group or third party notes, and sometimes open-ended questions on a questionnaire. Below are some examples of positive triggers:

- Personal relevance: During the first class the participant was not keen to make or taste the meal that the practitioner had decided that everyone should make. However, he was happier when he was able to choose the recipes he liked at the next session. In the follow-up interview he reported how important it was that he could choose which recipes he wanted to learn.
- Positive attitude: Practitioner reports that the participant had been sceptical about how much he would like the course at the beginning. By the end the participant commented on the quality of the course.
- Personal and moral norms: Participant regularly offered to help one of the participants who was struggling more with the cooking.
- Descriptive norms: Participant was reluctant to taste the food they had made, but was likely to when encouraged by one of the participants

Negative triggers:

- Negative self-efficacy: Participant said they felt unable to make a recipe again at home without support.
- Negative outcome expectancy: Participant looked bored and played on mobile phone during activities on healthy eating.

Analysis

Analysis was carried out in two stages:

- 1 Qualitative note data for each course and each participant were inputted into Excel spreadsheets.
- 2 Qualitative data were coded into quantitative data and added to Excel spreadsheets. The main spreadsheet coding provided 'yes' or 'no' responses (or data not gathered or relevant) for each participant. Analysis was carried out by filtering the data, and context–mechanism–outcome figurations were formed. Note: Both CFHS staff members working on this evaluation project carried out the coding to ensure consistency. More ambiguous responses and coding was checked with Avril Blamey who provided mentoring.

The participants

All the practitioners recruited participants for their courses in the normal way. For many this was by asking referral agencies (such as support groups or services) to identify and encourage participants to attend or targeting specific groups, e.g. by running a course in a nursery in a low-income area.

Practitioners recruited a total of 156 people to the 29 courses. We included 92 people in the analysis, but 64 people were not included because:

- 17 did not meet the criteria of being vulnerable or low-income parents
- there was a lack of evaluation information for 23
- 24 attended fewer than three sessions (and therefore there was a lack of information about the outcomes and reactions).

The people included in the analysis were 51 women, 24 men and 17 children (11 of whom were on the autistic spectrum).

Of the 75 adults, 17 were low-income parents [this was defined as by being entitled to receive any means-tested benefits or the parent's postcode was in the lowest 20% Scottish Index of Multiple Deprivation (SIMD) index]. Being a parent was defined as any adult with full-time responsibility for a child up to the age of 18 years of age, or a pregnant woman; 31 were low-income parents and vulnerable; and 27 were vulnerable only. Vulnerable adults included 14 adults with learning disabilities and 12 adults with mental health support needs.

People had a range of other vulnerabilities (including being at risk of discrimination). Issues they were affected by included:

- addiction or alcohol recovery
- living in temporary accommodation or using a homeless support service
- being a carer
- having literacy issues
- being on the autistic spectrum
- being from an ethnic minority ethnic group
- having physical disabilities
- referral by an agency such as social work or early years centre.

All these issues met our criteria for being vulnerable. Some people experienced more than one of these vulnerabilities, and others had other issues that we had not considered in our original vulnerable criteria, such as experience of using emergency food aid or having grandparent caring duties for vulnerable children.

Challenges and strengths

Challenges

Follow-up evaluation

A total of 61 adults were followed up. However, many practitioners used different evaluation methods or questionnaires to those used at baseline or at the end of the course. This was useful for finding out additional information but meant that we could not compare baseline, end-of-course and follow-up findings very easily.

Too many outcomes and indicators

In this report we have focused on five main outcomes and their 24 indicators. However, there were a further 10 outcomes and 25 indicators that we did not include (and are not listed in this report). Practitioners were encouraged to choose outcomes and indicators that were relevant to their course and participants attending it. However, this resulted in some indicators being used for only a few courses, making it difficult to compare courses. We focused on the five main outcomes and their indicators that seemed to be common to most courses.

Lack of information

Although all the practitioners provided extensive notes about their courses, inevitably some of the nuances about how courses were run and how people responded to them were lost.

We did not learn about if adapting to the needs of an individual (tailoring) was more effective than solely adapting to the needs of the group or whether eating together at the end of the group or taking food home gave better outcomes. These were issues that the study group had been interested in.

Lack of triangulated data

Very few courses managed to gather triangulated evaluation information for any of the outcomes. The most robust evaluation information we obtained was for cooking skills, where there was both observed and self-reported information for 75% adults.

BCCs

We considered that a BCC had been triggered based on stand out reactions from participants. We may have missed information when participants already had a high baseline [for example, some of the women may have already felt confident about their cooking skills (therefore were already high in self-efficacy) but this was not captured]. Information about BCCs was often gathered through observation. It may have been difficult to observe reactions from people who were less outgoing.

Strengths

Cross-checking and reflection

Two members of CFHS staff led the evaluation and evaluation coding was consistently checked by both. Staff met with practitioners from each of the eight organisations after they had each completed two courses and initial analysis had been carried out to aid reflection and refine theories. The CFHS staff also met with the study group after most analysis had been completed to further reflect on the findings.

Beyond self-reporting

Although triangulation of evaluation information was not achieved, most of the outcomes were evaluated using sources that included and were beyond self-reporting.

Validation

CFHS staff and our mentor Avril Blamey presented findings and methodology to academics, practitioners and Scottish Government staff at an evidence review meeting of 25 people. The response to the evaluation was positive overall.



Where to get more information

Information about running and evaluating cooking skills courses

CFHS has a range of information including guides, recipes, evaluation ideas, case studies and blog posts on running and evaluating community cooking skills activities.

www.communityfoodandhealth.org.uk

Accreditation for cooking skills

The Royal Environmental Health Institute of Scotland (REHIS) provides the Elementary Cooking Skills course and a wide range of other food-related courses.

www.rehis.com

Information about behaviour change concepts

The National Institute for Health and Care Excellence (NICE) provides guidance for health interventions. Behaviour change theories are discussed here:

www.nice.org.uk/guidance/ph6/chapter/2-considerations#planning-and-design
(accessed 21/02/2018)

Information about realist evaluation

The Rameses project provides guides and information about how to carry out a realist evaluation or review.

www.ramesesproject.org

This report by CFHS will help you plan and adapt your cooking skills course. It will encourage you to plan, reflect on and evaluate your course to make it as effective as possible.

www.communityfoodandhealth.org.uk

This resource may also be made available on request in the following formats:



 **0131 314 5300**

 **nhs.healthscotland-alternativeformats@nhs.net**

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