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National Obesity  
Observatory



# Brief interventions for weight management

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## **Executive summary**

This briefing paper aims to provide a guide to current best available evidence around brief interventions for weight management with adults. 'Brief interventions' are interventions that are limited by time and focused on changing behaviour – often to a few minutes per session. The focus of this paper is on face-to-face consultations that are conducted in settings such as primary care.

There is good evidence that brief interventions can lead to at least short-term changes in behaviour and body weight if they:

- focus on both diet and physical activity
- are delivered by practitioners trained in motivational interviewing
- incorporate behavioural techniques, especially self-monitoring
- are tailored to individual circumstances
- encourage the individual or patient to seek support from other people

More sustained changes in behaviour and body weight appear to require more intensive interventions conducted over an extended period.

Motivational interviewing can be used as part of an initial consultation with a patient. This initial consultation should be used to assess a patient's weight status and readiness to change behaviour. This, in turn, can help to inform the decision on whether to refer the patient to a more intensive intervention.

Behavioural interventions can be undertaken with individuals or with groups and should include self-monitoring to enable patients to recognise progress towards a goal. These should be combined with other strategies such as: providing feedback on progress towards goals; providing regular and long-term follow-up; and improving self-efficacy.

It is essential to evaluate the effectiveness of any intervention or service. The National Obesity Observatory's Standard Evaluation Framework offers guidance on the evaluation of weight management interventions.<sup>1</sup>

## **Introduction**

This paper aims to provide a guide to current best available evidence on brief interventions for weight management with adults. Brief interventions are defined as interventions that are focused on changing behaviour and are limited by time – often to a few minutes per session. By using structured brief interventions, GPs and other primary care professionals are able to make the best use of the limited time they may have with patients to discuss issues to do with lifestyle or behaviour.<sup>2,3,4</sup>

This paper is intended primarily for professionals working in primary care including GP consortia and commissioners of public health services within local health and well-being boards. It will also be of interest to academics and researchers, and professionals working in other settings such as health trainers, leisure professionals and dietitians.

Public health commissioners can use this information to guide commissioning decisions, and service providers can use it to help plan the delivery of brief interventions.

## **Background**

Primary care professionals have an important role in helping to tackle obesity. They may be the first contact an overweight or obese person has with a health professional, and their approach can influence whether a patient goes on to change their behaviour. It is therefore important to take a consistent and evidence-based approach to each consultation, deciding whether to offer a brief intervention or to refer to more specialist services.

## **Definition of brief interventions**

'Brief intervention' is a generic term referring to a variety of encounters with a patient that require relatively little time.<sup>5</sup> Brief interventions emerged from addictions treatment research which found that interventions for alcohol problems consisting of 1–3 sessions of approximately 5–30 minutes were as effective as more intensive interventions and more effective than no intervention.<sup>6,7</sup>

The focus of this paper is on face-to-face consultations conducted in settings such as primary care, and not just any intervention that is of brief duration, such as a brief exercise instruction session. Brief interventions range from a single session providing information and advice to a number of sessions of motivational interviewing or behaviour change counselling. They may involve screening, assessment and feedback about current behaviour, behavioural techniques such as goal setting, self-monitoring, reinforcement and can be delivered by a range of health professionals.<sup>8</sup>

## **Key issues to consider**

There is review-level evidence to support psychological interventions in weight management, such as behavioural therapy (the planned and structured use of a range of established behaviour change techniques) or cognitive-behaviour therapy, combined with a diet and exercise approach.<sup>9,10</sup> However, the effectiveness of interventions in helping people to change their behaviour may be influenced by specific components of these interventions and other contextual factors such as:

1. the nature of the initial consultation and use of a planned 'care pathway'
2. the content of each session (for example use of self-monitoring, goal setting and relapse prevention techniques)
3. the mode of delivery of the intervention (for example, in groups or with an individual)
4. the setting (primary care, hospital or workplace)
5. the skills and expertise of the intervention provider
6. the intensity of the intervention (the number of sessions over time and the duration of each session)
7. the extent to which a patient is ready to change

The next section summarises the evidence for each of these factors, and provides detailed guidance to help in the commissioning and planning of brief interventions.

## Evidence summary

### 1. The nature of the initial consultation and use of a planned 'care pathway'

#### Initial consultation

A clinician has many things to achieve during an initial consultation with a patient, and it can be difficult to shift the focus of the conversation to behaviour change in a way that is patient-focused and empowers the patient to make one or more behaviour or lifestyle change. Whilst primary care staff tend to think counselling is an important component of their work, there is a lack of consensus on how it should be delivered, especially in the time available.<sup>3</sup>

One of the most widely used evidence-based strategies for behavioural counselling is motivational interviewing (MI). This is a collaborative, person-centred form of guiding to elicit and strengthen motivation for change.<sup>11</sup> Motivational interviewing is often delivered over an extended time period,<sup>12</sup> and does tend to take longer than giving direct advice.<sup>13,14</sup> While there is evidence that a total of at least 60 minutes MI counselling is optimal, it has also been shown to be effective in brief encounters of only 15 minutes.<sup>15</sup>

In many cases, referral to more intensive services may be the best option to effect long-term behaviour change. However, even in these cases, the initial interaction with the health professional can be crucial in motivating the patient to attend the onward referral and to start to seriously contemplate making a behaviour change.

The initial consultation should be used to assess the patient's weight status and their readiness to change. This helps to inform the decision on whether or not to refer the patient to a more intensive intervention. At this time, it is also possible to deliver a very brief intervention, such as assessing the importance of and confidence about changing behaviour.<sup>16</sup> In the US, it has been suggested that there should be 'one minute of prevention' in every consultation.<sup>14</sup> There is also online guidance produced in Canada on how to initiate behaviour change in three minutes.<sup>17</sup>

#### Planned care pathway

As far as possible the approach to brief interventions should be planned and consistent and follow an agreed 'care pathway'.<sup>18</sup> The pathway should include the following stages:<sup>19</sup>

- screening: to identify people who are overweight/obese or at risk of obesity and assess readiness to change
- delivering a brief counselling intervention: providing information, increasing motivation to change, or teaching behavioural skills
- referring to brief intervention: for those at higher risk
- referral to more intensive treatment: for those at highest risk
- periodic follow-up: to help patients to track progress and 'problem-solve' about barriers which have arisen and how to overcome them.

Health professionals can use the General Practice Physical Activity Questionnaire (GPPAQ) to assess an individual's level of activity.<sup>20</sup> This is part of the Let's Get Moving physical activity care pathway which provides a structured approach to screening,

assessment and referral of people whose health is at risk due to low levels of physical activity.<sup>21</sup> Although this is a physical activity care pathway, it contains many elements that can be applied to combined diet and physical activity consultations.

The choice of any intervention for weight management must be made through negotiation between the individual and their health professional. The specific components of the intervention should be tailored to the person's preferences, initial fitness, health status, lifestyle and desired outcome.<sup>22</sup>

## **2. The content of each session (use of self-monitoring, goal setting, relapse prevention techniques etc.)**

The most important issue to consider when planning behavioural interventions is the nature of the consultation and the specific content of each session. Multi-component (and multi-behavioural) interventions are recommended – targeting both diet and physical activity and including established behaviour change techniques as well as educational components increases effectiveness for weight loss.<sup>22</sup>

### **Behavioural components**

There is good evidence that interventions to promote physical activity and healthy eating are more effective if they include self-monitoring and at least one other self-regulatory technique.<sup>23,24</sup>

#### ***a. Strategies for self-monitoring***

Self-monitoring allows the individual to recognise progress towards the identified goal (for example, minutes of activity or calories consumed per day) and provides direct feedback.

Self-monitoring interventions can include simple 'pencil-and-paper' logs of physical activity or dietary intake, or the charting of weight lost, number of steps taken per day or distance walked.<sup>24</sup>

#### ***b. Specific and proximal goals***

Setting goals at the outset of a programme helps achieve the desired behaviour change. Setting specific and realistic goals usually leads to better outcomes compared with no or vague goals.<sup>24,25</sup>

There is some evidence that proximal (short-term) goals in behaviour change (for example, aiming to walk for ten minutes more each day) may be more effective than distal (longer-term) goals (for example, aiming to be able to walk ten miles in the next six months), as they are more tangible and difficult to postpone, with more immediate rewards from accomplishment.

Goals should be set collaboratively between the patient and the health professional, and should focus on behaviour change (for example, reducing fat intake or walking more) rather than physiological change (for example, lowering cholesterol). Behavioural targets are easier to observe and achieve than physiological targets, which may be longer term and also influenced by factors such as genetics.<sup>22</sup>

### ***c. Plan for frequent follow-up and feedback***

Health professionals should provide regular feedback on progress to allow patients to assess progress and modify their plans. This also gives the health professional an opportunity to discuss new behaviour change techniques or skills.

Follow-up can be in person, oral, written or electronic according to the preference of the individual. More frequent feedback sessions can help increase adherence to the behaviour change strategy by supporting the development of diet and/or physical activity behaviour change skills; practising these skills; helping to solve problems; or integrating new behavioural skills into daily routines.<sup>24</sup>

Follow-up beyond the initial visit can take place at six weeks, then at three, six, and 12 months,<sup>21</sup> and then every six months if behaviour change is successful. Lack of progress should prompt more frequent follow-up.

### ***d. Use motivational interviewing (MI) strategies, particularly when an individual is less ready to change their dietary and physical activity behaviour***

Wherever possible, health professionals should use motivational interviewing (MI) strategies in consultations with patients. MI is a collaborative, person-centred form of guiding an individual to elicit and strengthen motivation for change.<sup>11</sup>

MI has been found to be effective in promoting change (at least in the short-term) with a wide range of health behaviours including diet and physical activity,<sup>26</sup> and health professionals can be trained to become competent in its use.<sup>27</sup>

The principles of MI are illustrated by the acronym **RULE**:<sup>28</sup>

- R:** resist the righting reflex. Practitioners should avoid the inclination to put right patients' behaviour even when it will benefit their health
- U:** understand and explore the patient's own motivations
- L:** listen with empathy
- E:** empower the patient, encouraging hope and optimism

During a consultation, the behaviour of both the practitioner and the patient can influence the patient's behaviour change. When practitioners employ more MI-consistent strategies, (asking open-ended questions about changing behaviour, and reflecting back 'change talk' when they hear it) and fewer MI-inconsistent strategies (giving unsolicited advice and telling patients what to do), patients spend more consultation time talking about their desires, ability, reasons and need to make positive changes to their behaviour. This patient 'change talk' is also directly related to positive changes in behaviour.<sup>29</sup>

A brief MI-based intervention to help patients make decisions about behaviour change in general practice consultations has been developed and has been well received by practitioners.<sup>30</sup> Even a three minute MI-based intervention with overweight or obese patients by doctors in primary care has been found to lead to small amounts of weight loss.<sup>13</sup>

### ***e. Incorporate strategies to develop self-efficacy***

Self-efficacy is an individual's confidence in their abilities to carry out particular behaviours. For example, an individual may feel confident in his/her ability to walk

more, but be less confident in their ability to make sustained dietary changes. Interventions should incorporate strategies that enhance self-efficacy in order to improve the likelihood of behaviour change. An individual's confidence tends to increase when he/she has:<sup>23</sup>

- opportunities to explore barriers and identify ways to overcome them, for example, answering the question "what prevents you from eating more fruit?"
- opportunities to reflect on past experiences of successful behaviour change
- access to good social support: this can be information support, emotional support and encouragement, or practical support (such as advice about accessible walking routes)
- successfully achieved a goal that is reasonable and proximal, such as swapping chocolate for fruit or walking a mile a day
- seen someone similar in capability successfully performing the desired task.

### **3. Mode of delivery of the intervention**

Interventions can be undertaken with individuals or groups. Individual sessions should be used for assessment of the patient's readiness to change behaviour; jointly identify goals; and develop a personalised plan.<sup>24</sup>

Group sessions using cognitive-behavioural strategies can be useful to teach skills to modify diet and develop a physical activity programme; provide role modelling and learn from others' success; and maximise the benefits of peer support and group problem solving.<sup>24</sup>

Successful group-based interventions incorporate counselling strategies and multiple behaviour change strategies such as goal setting and self-monitoring. Some group-based programmes have included skill-building sessions such as food label reading, grocery shopping, healthy cooking and using pedometers or other exercise equipment.<sup>24</sup>

Commercial programmes that use a group approach and a self-monitoring system to guide food choices appear to be more effective than self-help approaches without group support.<sup>24</sup>

The National Institute for Health and Clinical Excellence (NICE) recommends that primary care organisations and local authorities should only recommend to patients, or consider endorsing, self-help, commercial and community weight management programmes if they follow best practice by:<sup>22</sup>

- helping people assess their weight and decide on a realistic target (people should usually aim to lose 5–10% of their original weight)
- aiming for a maximum weekly weight loss of 0.5–1kg
- focusing on long-term lifestyle changes rather than a short-term, quick-fix approach
- being multi-component, addressing both diet and activity, and offering a variety of approaches
- using a balanced, healthy-eating approach

- recommending regular physical activity (particularly activities that can be part of daily life, such as brisk walking and gardening) and offering practical, safe advice about being more active
- including some behaviour change techniques, such as keeping a diary and advice on how to cope with 'lapses' and 'high-risk' situations
- recommending and/or providing ongoing support.

#### **4. The setting (primary care, hospital, workplace)**

Most of the evidence for the effectiveness of brief interventions in changing eating and physical activity behaviour and reducing body weight, comes from the primary care setting.<sup>3,10</sup> It is feasible that much of this learning can be transferred to other settings (such as leisure or community settings) but there is little research evidence in this area. Studies with problem drinkers show that interventions can be effective in a range of settings. However, it is unclear whether this conclusion can be directly applied to weight management.<sup>6,7</sup>

#### **5. The skills and expertise of the provider of the intervention**

Individual counselling has been effectively provided by health educators, counsellors, physicians and other health professionals.<sup>24</sup> There does not appear to be one professional group that is more likely to deliver effective interventions, although this will depend on the interpersonal skills of the person delivering the intervention, and the amount and quality of training they have received.<sup>15</sup>

NICE recommends that any healthcare professional involved in the delivery of interventions for weight management should have relevant competencies and have undergone specific training. Training for health professionals should include:<sup>22</sup>

- the health benefits and the potential effectiveness of interventions to prevent obesity, increase activity levels and improve diet (and reduce energy intake);
- the best practice approaches in delivering such interventions, including tailoring support to meet people's needs over the long term;
- the use of motivational interviewing and counselling techniques

Training needs to address barriers that health professionals may experience in providing support and advice.<sup>22</sup> For professionals with little or no experience of MI or individual counselling, it may be necessary to offer more generic communication skills training before focusing on counselling skills.

Developing expertise in MI follows a sequence of eight stages and typically requires a minimum of two days of training followed by on-going supervision and follow-up training.<sup>31,32</sup> For those new to the topic, training may need to be longer than two days.

Specific indicators of training quality and practitioner competence should be included as indicators in service specifications alongside weight management outcomes. For example, specifying a minimum number of days' experience in using specific counselling techniques.

Interventions can also be delivered by lay health educators who have received appropriate training. Three trials that tested lay-led interventions showed positive changes related to diet and/or weight.<sup>24</sup>

Overall, the interpersonal style of the provider and the skilful use of behaviour change techniques appear to be more important than qualifications or professional background.

## **6. The intensity of the intervention (number of sessions over time and the duration of each session)**

An important consideration is how many sessions are offered to an individual; the duration of these sessions; and the frequency of follow-up sessions, after the initial brief intervention. Although there is review-level evidence that MI can be effective even in brief encounters of only 15 minutes, it is clear that more than one encounter with a patient and increased exposure time increases the likelihood of a positive effect.<sup>15</sup>

In most studies, more frequent and/or longer contact sessions are associated with greater reductions in body mass and improvements in physical activity and diet.<sup>9,15,33</sup>

Reviews have found the median duration of an individual counselling encounter to be 60 minutes (range = 10–120 minutes) with 64% of the brief interventions (less than 20 minutes duration) showing an effect.<sup>14</sup> The interventions with significant benefit beyond 12 months were all high-intensity counselling interventions with group, phone, or mail contact throughout. Most high-intensity interventions that had follow-up beyond 12 months showed persistent beneficial changes in adiposity and lipids, as well as improvements in self-reported behavioural outcomes.<sup>33</sup>

It is, therefore, recommended that interventions allow sufficient time for consultations, plan to provide repeat consultations and arrange frequent follow-up appointments. NICE recommends that for behaviour change to be sustained at one year, several follow-up sessions over a period of three to six months are required after the initial consultation episode.<sup>20</sup>

Overall, the level of support offered should be determined by the person's needs, and be responsive to changes over time.<sup>22</sup>

## **7. The extent to which a patient is ready to change**

People vary considerably in the extent to which they are ready to change. It is important that practitioners are able to sensitively assess a person's level of readiness to change a specific behaviour. Readiness is likely to vary: across type of behaviour (an individual may be more ready to change diet than be more active); over time (such as being more ready to change in the New Year); and depend according to whether they were referred to or volunteered for the intervention.

Interventions should, therefore, focus on strategies for change that are appropriate for people's level of readiness to change. For people not interested in changing their behaviour, it can be helpful to assist them to explore their ambivalence in a non-judgmental way, rather than focusing solely on behaviour change. Those who are

considering behaviour change are more likely to respond to strategies that help them to weigh up the pros and cons of change and begin to make plans.

People who are not yet ready to change should be offered the chance to return for further consultations when they are ready or able to make lifestyle changes. They should also be given information on the benefits of losing weight, healthy eating and increased physical activity.<sup>22</sup>

## **Discussion**

Brief interventions can lead to at least short-term changes in behaviour and body weight. To do so they must focus on both diet and physical activity, be delivered by empathetic practitioners using MI-consistent strategies and incorporate behavioural (especially goal-setting and self-monitoring) techniques tailored to individual circumstances. Patients or individuals should also be encouraged to seek social support.

More sustained changes in behaviour and body weight appear to require more intensive interventions conducted over an extended period. However, practitioners may still be able to reinforce the effects of initial interventions by reviewing progress and employing self-monitoring techniques at follow-up contacts. When time is restricted, intensive interventions are likely to require referral to a specialist service or to health professionals with more time available.

Even when the primary focus of a brief intervention is referral to another provider, the uptake of the referral and subsequent adherence to the service or programme can be enhanced when practitioners work collaboratively with patients, evoke the patient's own motivation for change and acknowledge their autonomy. It is clear that skilful practitioners produce better outcomes than less skilful practitioners, and this has training implications.

There is, however, no template that can be universally applied to all situations or types of consultations. The most appropriate intervention can only be ascertained through discussion with the patient, with the health professional and patient working together to explore options. A care pathway approach helps here in setting out the logical steps, and the Department of Health obesity care pathway<sup>18</sup> or the Let's Get Moving physical activity pathway are viable options.<sup>21</sup>

There remain a number of gaps in the evidence base for brief interventions. Although the evidence for the effectiveness of motivational interviewing in general is strong, there is a need for greater precision, particularly over the intensity of the treatment. What intensity of treatment is needed for different patients, at different levels of readiness to change, or with different health conditions? Do more 'ready' patients need less intervention, and if so, is this moderated by how much change they need to make? There is also a need for more studies on the cost-effectiveness of brief interventions.

It is essential to evaluate the effectiveness of any interventions or services that are being delivered. The National Obesity Observatory's Standard Evaluation Framework offers guidance on the evaluation of weight management interventions.<sup>1</sup> It is only by evaluating ongoing interventions, through well- designed service specifications with good prospective evaluation methodologies, that we will be able to contribute to the evidence base and improve the effectiveness of public health services.

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## Reader Information

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