

Systematic review of reviews of intervention components associated with increased effectiveness in dietary and physical activity interventions



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Why was the study undertaken?

Type 2 diabetes is affecting more and more people. It restricts their lives in many ways and can even shorten them. The point of this study is to see how best to help stop people getting diabetes.

It is well known to doctors that even small changes in lifestyle can make a large difference in outcomes. A mixture of better eating, more exercise and weight loss can radically improve the situation.

A problem the authors face is that although we all mean well we can let things slip and go back to our old unhealthy ways. So how can doctors encourage such changes without it being too expensive in terms of doctors' and other professionals' time?

How did they study the problem?

A large number of research projects have already been done with patients who are at risk of developing Type 2 diabetes. There have even been a lot of reviews drawing together these studies to overcome the problems in any one. This study went one step further and reviewed these reviews.

What did they discover?

1. With help, people can lose weight through better diet (often eating less but also better food). However, the effect fades over time as some (but not all) of the weight lost is put back on after about three years.
2. Weight loss is easier to maintain if patients are helped by experts. People are taught to monitor their behaviour and are taught techniques to get back on track if things go wrong.
3. With support from members of the family people seem able to achieve more.
4. Time management is important for people to keep up physical exercise. Pedometers can also be used to keep patients walking.
5. It also seems that keeping a diary helps.
6. We can also be encouraged by Motivational Interviewing (a specialist form of interview developed by psychologists but available more widely now).
7. Some studies looked at the impact of either changing one's diet or increasing exercise but it seems that both together are more effective.

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How should the programme of diabetes prevention be made to work?

Health professionals can use groups or work with individuals, or a bit of each (some group work and some one-to-one work).

A variety of people including doctors, nurses, dieticians, exercise specialists and even trained lay people can do this work. All can be effective.

How frequently people should be seen and how long the programme should last are interesting questions. There are no decisive answers. However, it is likely that helping people for a longer period of time and having more frequent contact is more effective than briefer programmes.

Who is being helped and does it matter?

Interventions seem to work equally well for either sex.

There is little evidence on whether certain ethnic groups do better than others. More research is needed here.

It may be that older people do slightly better than younger, but the evidence is not decisive.

Targeting the people most at risk may yield good results according to some studies.

People who already have diabetes seem less able to lose weight than others.

Whether the interventions take place at home, at the doctors' surgery or even at work makes no difference to the outcome.

What are the next steps in research?

Future studies could look at how to provide weight loss activities more cheaply, develop a better understanding of the way to encourage weight loss and new means of communicating (perhaps with use of the internet).

The full study can be found at: Greaves et al. BMC Public Health 2011, 11:119

<http://www.biomedcentral.com/1471-2458/11/119>

Summary prepared by Geoff Barr (Patient Representative), October 2011