

Can 'mindfulness' help people manage their diabetes?

May 20 2016, by Euan Wemyss



A study to explore whether a technique similar to meditation can be used to help adults struggling to manage their Type 1 diabetes improve their diabetes control and their emotional wellbeing is under way at the University of Aberdeen.

In partnership with researchers at the Universities of Glasgow and Stirling, and consultant medical staff at NHS Grampian and NHS Greater Glasgow and Clyde, the <u>pilot study</u> will attempt to see whether



practising mindfulness leads to lower <u>blood glucose levels</u> and reductions in anxiety and <u>depression</u>.

Some people with diabetes can find it difficult living with the condition and having to carry out complex tasks multiple times per day to regulate their blood <u>glucose levels</u>.

About one third of adults with diabetes experience significant levels of anxiety and depression and this can make it even more difficult for them to manage effectively their condition.

A specially designed mindfulness-based cognitive therapy course has been shown in informal testing by psychologists in NHS Grampian to reduce anxiety and depression symptoms in people with diabetes. This pilot study will explore the effect of this treatment among adults with Type 1 diabetes, whose blood glucose levels are markedly above certain recommended values, and the extent to which researchers are able to recruit to this kind of study. If successful, this will lay the groundwork for a larger-scale study.

Researchers are in the process of inviting volunteers to take part in the study.

Managing Type 1 diabetes

People with Type 1 diabetes have to continually balance three key factors of their life: carbohydrate in food drives blood glucose levels up, whereas injecting insulin and engaging in activity lowers glucose levels. Different foods have dissimilar amounts of glucose and release it at varying rates. Some insulins work in different ways, and some activities burn up glucose at quicker rates than others. It's an endless, complex balancing act.



"As well as trying their best to manage their condition, like everyone else, people with Type 1 diabetes have to deal with the usual ups and downs of life. It's not surprising that some people with diabetes can become anxious and depressed," explains Dr Andy Keen, a health psychologist specialising in diabetes at the University of Aberdeen and NHS Grampian, and chief investigator of the study.

"Both these conditions have characteristics that make managing diabetes even harder. For example, people who are anxious have high levels of stress hormones such as adrenalin and cortisol, and these cause glucose to be released into the bloodstream, driving up blood glucose levels. Also, depression is characterised by fatigue and low motivation, which can make it tricky to devote the time and energy required to manage complex long-term conditions like diabetes.

"Anxiety and depression are characterised by certain styles of thinking, namely worry and rumination. Worry is a style of thinking that focuses on imaginary future catastrophes that rarely, if ever, actually occur and is often accompanied by planning what to do should they happen. Rumination on the other hand is often focused on the past, and concerns continual reflections about our imagined failings and how, because of these, life is unlikely to improve. Psychologists and others believe that these unhelpful ways of thinking maintain anxiety and depression."

What is Mindfulness and how could it help?

"It is best to think of mindfulness as a skill," continues Dr Keen. "It is a way of helping people be better able to focus on the 'here and now' of their lives, and disengage with unhelpful ways of thinking, such as worry and rumination.

"If you change the way people think, then you change the way they feel. We definitely know that anxiety and depression can be significant



barriers to effectively managing diabetes, and by alleviating these we can give people the opportunity to invest more time and energy into looking after themselves if they want to do that.

"One of the pioneering things we have done here in Aberdeen at the JJR McLeod Centre for Diabetes, Endocrinology and Metabolism, is include in our mindfulness programmes a focus on promoting self-management because ideally we would like people to improve their quality of life as well as their health, not just the former."

The study will run for two years.

Participants will be expected to attend a mindfulness group one evening a week for eight weeks, and practice mindfulness at home. In addition to observing how well participants manage their blood glucose levels, and their levels of anxiety and depression before, during and after the study, researchers in Aberdeen and Glasgow will be evaluating the extent to which people with Type 1 diabetes are keen to engage in this kind of approach.

Provided by University of Aberdeen

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