

PEER SUPPORT FOR TYPE 2 DIABETES

Type 2 diabetes self-management can be challenging, but peer support can help. A new study, looking at telephone peer support, shows limited benefits but also points the way to more effective ways of delivering this kind of intervention.

Peer support interventions in type 2 diabetes have been shown to be associated with improvements in clinical, self-management and psychological outcomes. Peer support models for adults with type 2 diabetes have mainly involved people with diabetes attending primary care clinics or community health centres. But it is maybe those in speciality care who are in most need of this support. People with type 2 are frequent users of inpatient services. They often have above-target blood glucose levels, as well as living with various comorbidities. So, this might be the setting where peer support could have the most impact.

Researchers at the University of British Columbia have carried out a study of a peer-led self-management support intervention delivered by telephone, to see if it improved glycaemic control and diabetes distress in adults with type 2. In British Columbia, 11% of the population has diabetes and this is projected to rise to 13% by 2031. It accounts for \$546 million in direct

costs to the province's healthcare system and those with type 2 on oral medications have to pay out-of-pocket expenses of \$1,500 to \$1,900 per year. Peer support has been identified as a viable and cost-effective approach for mitigating this burden by providing long-term diabetes self-management support.

Testing telephone peer support

A group of 196 adults with type 2 was randomised to either the Peer-Led Empowerment-based Approach to Self-management Efforts in Diabetes (PLEASED) intervention or to usual care for 12 months, with assessments at baseline, three and 12 months. The primary outcome was HbA1c and secondary outcomes were diabetes distress, ApoB levels, diastolic and systolic blood pressure, BMI, waist circumference and depressive symptoms.

Those in the PLEASED group worked with peer leaders, who had completed a 30-hour training

programme. This involved developing knowledge and skills in the following three key peer support functions:

- assisting participants in daily self-management
- providing them with social and emotional support
- linking them with community resources.

They also learned how to:

- help participants identify their personal motivation to self-manage
- use active listening skills
- use empowerment-based communication styles
- set goals and develop action plans
- apply the problem-solving process.

The initial contact between the peer leader and participant took place face to face. Here they discussed the participant's motivation for making self-management changes and set a self-management goal, applying a goal-setting model and setting up an action plan. After that, contact was weekly by phone for the first three

months, and then biweekly for the last nine months. These sessions included:

- discussion about self-management challenges
- sharing feelings about these challenges
- solving problems
- addressing questions
- setting goals.

Study findings

At three months, HbA1c was not significantly different from baseline values for either the PLEASSED or the control group. Overall diabetes distress did decrease in the PLEASSED group, and they also had a decrease in emotional distress and distress relating to their diabetes regimen, while the control group had a decrease in regimen distress. However, these changes were not significantly different between the two groups.

So, at three months, it seemed as if peer support was not particularly effective. Maybe it would take more time for the benefit to reveal itself. Unfortunately not, for at 12 months, there were still no differences in HbA1c from baseline in either group. Now, overall diabetes distress was significantly lower in both groups and there were also some further decreases in various aspects of this distress. However, none

of these decreases were significantly different between the groups.

When it came to secondary outcomes, both groups reported a decrease on the depression questionnaire, but there was no significant difference between the two. In fact, the only significant difference was in systolic blood pressure, with a larger reduction in the PLEASSED group compared with the control group.

Benefit at higher HbA1c

At first sight, these findings might seem disappointing. However, further analysis showed that some participants benefited more than others from the peer support intervention. There were 69 participants who had HbA1c \geq 69mmol/mol. Those assigned to the peer support group had significantly lower HbA1c at three months and at six months – with average decreases of 12.5 and 14.8mmol/mol respectively, while those assigned to the control group did not see a significant decrease in HbA1c at three or 12 months. The three-month change in HbA1c was not significantly different between the two groups, but the 12-month change was.

The authors note that a systematic review and meta-analysis of 16 peer-support interventions on cardiovascular risk factors among people with diabetes

found they also led to significant reductions in systolic blood pressure, but not in diastolic blood pressure, Apo B or BMI.

Their findings are also consistent with those of another study of 628 adults randomised to either integrated care followed by telephone peer support or integrated care only. This older study found no between-group differences in HbA1c, depression and other psychosocial endpoints. However, another study of adults with type 2 in a speciality care setting in Iran showed that participation in a six-month peer support intervention involving both monthly group sessions and weekly telephone contact did lead to improvements in HbA1c, self-management behaviour, self-efficacy and quality of life, compared to controls. So it may be that the group setting is the key to success here – something to note when devising peer support interventions.

The authors further note that it is not surprising that improvements in HbA1c were confined to those with higher levels to start with. A review of 132 behavioural interventions for adults with type 2 shows that it is those with the higher HbA1c who tend to experience the greater reductions from the intervention.



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Peer support settings

When it comes to the finding that PLEASE did not improve HbA1c or diabetes distress more than control, the authors suggest a few reasons why. Delivering support by telephone may not be sufficient – as mentioned above. One previous study comparing peer-led telephone support, nurse-led telephone support and usual care found no improvements in HbA1c. But another study which combined peer-led telephone support with face-to-face contact did find an improvement in HbA1c compared with usual care.

Also, PLEASE was delivered solely

by peer leaders. Might it be more effective to combine peer and professional support? There is evidence of such a study that shows that an HbA1c reduction of 4.4mmol/mol can be achieved by this approach, compared with no reduction in a control group. And in a study where veterans with diabetes took part in an intervention with a combination of provider-led groups and peer support, participants expressed appreciation for having peers share experiences but also recognised the importance of clinical input.

Finally, rather than focusing on HbA1c reduction as an outcome, it might be more relevant to look at how peer support helps sustain self-management in the long-term following diabetes education.

A study of 116 adults with type 2 randomised the participants to either six months of diabetes education followed by 12 months of peer support. Or diabetes education followed by 12 months of health worker support. The peer support group lowered their HbA1c after six months and sustained this at 12 months. Of note, the peer leaders in this study have been trained in the PLEASE method.

Conclusion

Peer support offers a meaningful contribution to self-management support in type 2, particularly in the specialist care setting. But the modality in which it is delivered might influence its effectiveness. Telephone support combined with group or face-to-face sessions might be a better option than telephone peer support alone. And the support models need to be flexible to the ever-changing circumstance of the journey of the individual through type 2 diabetes.

i Tang T, Afshar R, Elliot T et al. **From clinic to community: a randomized controlled trial of a peer support model for adults with type 2 diabetes from specialty care settings in British Columbia.** Diabetic Medicine. Online: <https://doi:10.1111/dme.14931>



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