The University of Manchester

National Institute for Health Research

Collaboration for Leadership in Applied Health Research and Care (CLAHRC) for Greater Manchester

Preventing type 2 diabetes in primary care

Supporting lifestyle change in people with impaired glucose tolerance

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About the CLAHRC

The CLAHRC for Greater Manchester is a collaboration between the University of Manchester and NHS Trusts across Greater Manchester. Their five year mission is to improve healthcare, reduce inequalities in health and support self-management for people with cardiovascular conditions (diabetes, heart disease, kidney disease and stroke). This poster describes the interim results of the CLAHRC diabetes implementation theme which works with NHS Bolton and NHS Salford to offer diabetes prevention for people at increased risk of developing type 2 diabetes in primary care.

The challenge

The CLAHRC works in partnership with NHS Bolton and NHS Salford to improve quality of care for people with IGT. This is achieved by implementing evidence-based preventative lifestyle services, translating intensive programmes used in randomised controlled trials into primary care-based, real-world settings. Educational support, offered through a series of structured goal setting and action planning, provides people with enhanced understanding of their condition, empowering them to make choices about how they can make and sustain lifestyle changes that will reduce their risk of developing type 2 diabetes.

The background

There is strong evidence to suggest that without any lifestyle or medical intervention, approximately 50% of people with impaired glucose tolerance (IGT) will develop type 2 diabetes, accompanied by increased risk of cardiovascular disease and development of microvascular complications, within five to ten years[1,2]. Studies have shown that fairly modest lifestyle changes delay or prevent the onset of type 2 diabetes in people with IGT[3,4]. Lifestyle interventions have also been shown to be cost-effective, particularly when targeting those people with IGT who are at highest risk of developing type 2 diabetes[5].

The process

Two models of lifestyle support were tailored to local context and existing community services. The NHS Bolton service is face-to face delivered by health trainers. In NHS Salford the service is purely telephone based delivered by health advisors. Both programmes offer educational support over a period of six months and are evidence based[6]. Interim results for both services are now available. These include patient biomedical outcomes (e.g. fasting and 2 hour oral glucose tolerance test [OGTT] results, changes in weight, waist circumference, and Finnish Diabetes Risk Score[7,8]) complemented by focus group, interview and questionnaire data with attention on patient satisfaction.

Results for both services

	NHS Bolton	NHS Salford
Mean weight loss	2.64kg / 2.86% (n=93)	3.19kg / 3.42% (n=47)
Mean waist circumference reduction	2.42cm / 2.21% (n=74)	n/a
Mean FINDRISC reduction	0.94 points (n=101)	1.30 points (n=48)
Reduction in mean 2 hour glucose levels following OGTT	0.65 mmol/l (n=51)	1.46 mmol/l (n=44)
% reverting to normoglycemia following OGTT	51 (n=26)	59 (n=26)

Table 1: Clinical outcomes for NHS Bolton and NHS Salford

"It [the service] is helpful, it educated me about my diet and also motivated me."

"I am more motivated to do it."

"I find it [the service] very encouraging and I am treated with respect."

"I feel so much fitter now."

"It is personal; she [the health trainer] listens, targets are not set for me but it is [about] agreeing them and making them realistic and then monitoring it."

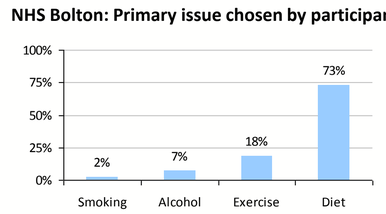
Figure 1: Feedback from NHS Bolton participants (focus group data)

"I told my health advisor, 'there is no chance I will lose weight. I haven't lost weight for over 20 years.' (…) I have now lost 10lbs and have reduced my alcohol by half and hardly notice it! There was no pressure, no hammering home that I must lose weight. He (the health advisor) was so laid back. It's a fantastic service."

"It is an excellent scheme and if it helps reduce the chances of getting diabetes for anyone it is worth doing"

"The guidance, the support, the information and the motivation I received from Care Call has given me the confidence to know I can, and have, prevented myself from getting diabetes (…) just by changing my lifestyle and looking after myself."

Figure 2: Feedback from NHS Salford participants (focus group and questionnaire data)



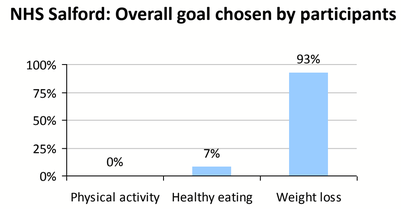
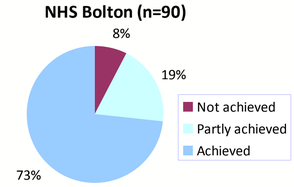


Figure 3: Overall lifestyle areas chosen by participants



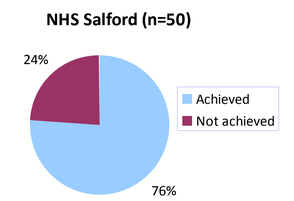


Figure 4: Achievement of overall lifestyle goal/issue in NHS Bolton and NHS Salford

Conclusion

Both face-to-face and telephone based services are effective in helping people at risk of developing type 2 diabetes make and maintain healthier lifestyle choices. Clinical outcome data suggests that improved lifestyle changes and improvements in weight and waist circumference are comparable to published studies. The best mode of service delivery to choose – telephone or the face-to-face – depends on local and contextual factors. Factors to consider include currently available primary care services, demographic characteristics of the local IGT population and operating service location (e.g. rural or an urban setting). Additional information, including cost-effectiveness, will be available once the formal evaluation has been completed. However, this interim data suggests service users and local health economies are benefiting from the services provided. Evaluation outcomes and service user feedback will enable further service enhancements to be made.

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